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The President

National Childhood Cancer Awareness Month, 2023

By the President of the United States of America

A Proclamation

During National Childhood Cancer Awareness Month, we honor the extraordinary courage, strength, and optimism of the tens of thousands of families now fighting the leading cause of death by disease for children: cancer. We remember the bright lives cut short and recommit to ending cancer as we know it, for all those we have lost and all those we can save.

Cancer is brutal no matter whom it strikes, but it is particularly cruel when it affects the youngest among us. When they should be learning in school and playing outside, children with cancer are oftentimes fighting for their lives in hospitals instead. A cancer diagnosis takes a tremendous toll on their family, friends, and community. Caregivers are often left struggling to deal with a flood of medical information, to make sense of treatment options, and to navigate mounting medical bills all while trying to stay hopeful and steal moments of joy with their loved ones.

Over the past 50 years, cancer researchers have made major advances treating some types of pediatric cancer—but we have much more to do. Last year, the First Lady and I reignited the Cancer Moonshot, setting an ambitious new goal to cut America’s overall cancer death rate by at least half over the next 25 years, turn more cancers from death sentences into treatable diseases, and improve support for patients and families. As a first step, I worked with the Congress to establish the Advanced Research Projects Agency for Health, securing \$2.5 billion in bipartisan funding to develop breakthroughs in preventing, diagnosing, and treating cancer and other deadly diseases and pioneering partnerships to get those breakthroughs out to patients and clinics across the Nation. We’re also making lifesaving health care more affordable for millions of American families, expanding health care coverage for families through Medicaid and the Affordable Care Act, and helping millions of families save \$800 per year on health insurance premiums.

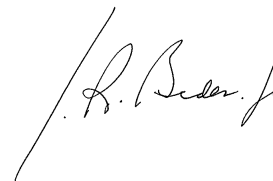
At the same time, the National Cancer Institute has developed a National Cancer Plan to speed up the development of effective cancer treatments, including those for children. The Institute’s Childhood Cancer Data Initiative is also providing free molecular testing of tumors, further helping my Administration implement the RACE for Children Act, to quickly identify and approve precision pediatric cancer drugs. Earlier this year, I was also proud to sign the Childhood Cancer STAR Reauthorization Act, boosting funding for childhood cancer research, including research into late effects of childhood cancer treatment and new ways to care for survivors. And as a part of the Cancer Moonshot, the National Cancer Institute launched the *Childhood Cancer–Data Integration for Research, Education, Care, and Clinical Trials*, a first-of-its-kind, public-private partnership that will help children, adolescents, and young adults with cancer and their families reach out for support, connect to excellent care, and obtain opportunities to participate in research.

During National Childhood Cancer Awareness Month, we honor the absolute courage of the tens of thousands of children who fight cancer every day and all of the loved ones who support them. And we recognize the medical

professionals, researchers, companies, philanthropies, and academic institutions who search tirelessly for early detection methods, better and safer treatments and even cures. Together, we will create a cancer-free future for our kids.

NOW, THEREFORE, I, JOSEPH R. BIDEN JR., President of the United States of America, by virtue of the authority vested in me by the Constitution and the laws of the United States, do hereby proclaim September 2023 as National Childhood Cancer Awareness Month. I encourage citizens, government agencies, private businesses, nonprofit organizations, the media, and other interested groups to increase awareness of what Americans can do to support the fight against childhood cancer. I encourage anyone experiencing uncertainty around risk factors or treatment options, or looking for other opportunities for support to connect with a trained specialist at 1-800-4-CANCER or visit www.cancer.gov.

IN WITNESS WHEREOF, I have hereunto set my hand this thirty-first day of August, in the year of our Lord two thousand twenty-three, and of the Independence of the United States of America the two hundred and forty-eighth.

A handwritten signature in black ink, appearing to read "Joe Biden", with a long, sweeping horizontal line extending to the left.

Presidential Documents

Proclamation 10611 of August 31, 2023

National Ovarian Cancer Awareness Month, 2023

By the President of the United States of America

A Proclamation

This year, nearly 20,000 women in the United States will be diagnosed with ovarian cancer—the deadliest of all female reproductive system cancers. Like so many American families, the pain of cancer and the devastation left in its wake are personal for me and my family. During National Ovarian Cancer Awareness Month, we stand in solidarity with the brave women fighting this terrible disease. We honor the mothers, sisters, daughters, wives, and friends we have tragically lost. And we renew our commitment to ending cancer as we know it.

Despite remarkable scientific breakthroughs, no reliable method for asymptomatic screening and detection exists, often delaying discovery until the cancer has progressed to far deadlier, advanced stages. Even for patients who receive a timely diagnosis, the flood of medical information can be overwhelming, and the cost of life-saving care can be financially crippling. Thousands of Americans pay more than \$10,000 per year for ovarian cancer drugs.

Our Nation must do more to change that. Last year, the First Lady and I reignited the Cancer Moonshot, setting ambitious goals to cut the overall cancer death rate by at least half in the next 25 years, turning more cancers from death sentences into treatable diseases and working to improve the experience for patients and their families. As a first step, I worked with the Congress to establish the Advanced Research Projects Agency for Health, securing \$2.5 billion in bipartisan funding to drive scientific breakthroughs in preventing, detecting, and treating cancer and other deadly diseases and pioneering partnerships to get those breakthroughs out to clinics and patients.

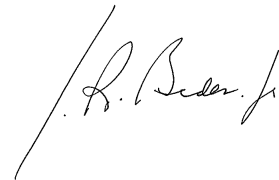
My Administration is also working to get patients and their families the breathing room they deserve—since taking office, we have lowered prescription drug costs and made lifesaving health care more affordable for millions of American families. We have strengthened Medicaid and the Affordable Care Act, expanding health care coverage to millions of Americans and helping 13 million people save \$800 per year on health insurance premiums. The Inflation Reduction Act will also cap out-of-pocket drug costs for people on Medicare at \$2,000 per year, even for expensive cancer drugs.

We also know that early detection greatly improves chances of survival for ovarian cancer. All women should discuss risk factors with their doctors and remain vigilant against symptoms. Experts recommend that patients with a personal or family history of breast or ovarian cancer—or whose ancestry is associated with harmful gene variants—have a discussion of risk factors with their doctors to see if genetic counseling and testing may be appropriate.

Every day, people across the country share their stories of cancer with me—stories of pain and perseverance, stories of loss and love, and stories of heartache and hope. In observance of National Ovarian Cancer Month, let us pay tribute to all the lives we can save and to all the lives we have lost. Let us support the families and medical community working tirelessly to provide them with treatment and care. And let us recommit to ending cancer as we know it, once and for all.

NOW, THEREFORE, I, JOSEPH R. BIDEN JR., President of the United States of America, by virtue of the authority vested in me by the Constitution and the laws of the United States, do hereby proclaim September 2023 as National Ovarian Cancer Awareness Month. I call upon the people of the United States to speak with their doctors and health care providers to learn more about ovarian cancer. I encourage citizens, government agencies, private businesses, nonprofit organizations, the media, and other interested groups to increase awareness of what Americans can do to detect and treat ovarian cancer.

IN WITNESS WHEREOF, I have hereunto set my hand this thirty-first day of August, in the year of our Lord two thousand twenty-three, and of the Independence of the United States of America the two hundred and forty-eighth.

A handwritten signature in black ink, appearing to read "Joe Biden", with a long, sweeping horizontal line extending to the left.

Presidential Documents

Proclamation 10612 of August 31, 2023

National Preparedness Month, 2023

By the President of the United States of America

A Proclamation

In America, we pride ourselves on emerging from every crisis stronger than when we entered it. That is because our people are resilient—and when we invest in preparing them for disasters seen and unforeseen, we can meet every challenge together. This National Preparedness Month, we recommit to doing just that: Building a stronger and more resilient Nation and equipping Americans with the resources they need to remain safe and secure.

This year alone, historic flooding, wildfires, smoke, and extreme heat has claimed the lives of many Americans and, more broadly, threatened the lives and livelihoods of people across our Nation. Other Americans have had to face personal emergencies at a moment's notice—whether it is supply chains breaking down and preventing them from accessing the products they need, prolonged power outages because of extreme weather events, or a health emergency that puts a loved one in the hospital. And, climate change is making many of these challenges more ferocious, frequent, and costly.

To meet these challenges of today—and prepare for the crises of tomorrow—my Administration is taking historic action to invest in the security and well-being of America and Americans. That is what my Invest in America agenda is all about. Between the funding from the Bipartisan Infrastructure Law and the Inflation Reduction Act alone, we have secured more than \$50 billion so far in climate resilience so that communities can better withstand the impacts of climate change and extreme weather. That includes making transportation infrastructure more resilient by elevating roads and bridges over projected flood zones, planting urban trees to mitigate heat, increasing pay for our Federal firefighters, and upgrading housing and buildings to make them more energy efficient and better able to withstand extreme weather. These investments are also about securing our future: They put us on a path to cut America's greenhouse gas emissions in half by 2030, help communities prepare for climate-related disasters, and invest in American workers and American-made products. Together, we will ensure that, when disaster hits, our economy stays strong, Americans' livelihoods remain secure, and critical goods and services are there when we need them most.

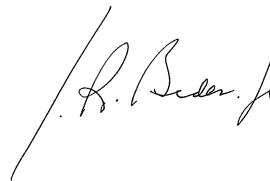
When disaster does strike, every American should have peace of mind knowing that they can access health care for themselves and their family. That is why we expanded Affordable Care Act health care coverage for millions of Americans through the Inflation Reduction Act, saving millions of working families an average of \$800 a year on their health care premiums.

This National Preparedness Month, may we honor all of our first responders, who run toward disaster at a moment's notice. May we also recognize that our Nation is best prepared to face disaster when our national security, climate security, and economic security are strong and when every American has the resources and support they need. To learn more about readiness, visit www.Ready.gov or www.Listo.gov for Spanish speakers. With the help of our partners in every sector and across local, State, Tribal, and territorial

governments, may we all meet this moment and protect our families, communities, and country for generations to come.

NOW, THEREFORE, I, JOSEPH R. BIDEN JR., President of the United States of America, by virtue of the authority vested in me by the Constitution and the laws of the United States, do hereby proclaim September 2023 as National Preparedness Month. I encourage all Americans to recognize the importance of preparedness and work together to enhance our resilience and readiness.

IN WITNESS WHEREOF, I have hereunto set my hand this thirty-first day of August, in the year of our Lord two thousand twenty-three, and of the Independence of the United States of America the two hundred and forty-eighth.

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Presidential Documents

Proclamation 10613 of August 31, 2023

National Prostate Cancer Awareness Month, 2023

By the President of the United States of America

A Proclamation

This year alone, more than 280,000 Americans will be diagnosed with prostate cancer. During National Prostate Cancer Awareness Month, we honor the lives ended too soon and all those we can still save by redoubling our efforts to end cancer as we know it.

When someone is diagnosed with prostate cancer, every second counts. But patients are too often left advocating for basic care while drowning in a flood of medical information. Even when treatment is available, some struggle to afford it or insurance may not cover it. And stark inequities exist: Black men are more than twice as likely to die from prostate cancer in this country than other men.

Our Nation must do more to change that. Last year, the First Lady and I reignited the Cancer Moonshot, setting an ambitious new goal to cut America's cancer death rate by at least half over the next 25 years, turning more cancers from death sentences into treatable diseases and improving support for patients and families. I worked with the Congress to establish the Advanced Research Projects Agency for Health, securing \$2.5 billion in bipartisan funding to develop breakthroughs in preventing, diagnosing, and treating cancer and other deadly diseases and pioneering partnerships to get those breakthroughs out to clinics and patients. We are making life-saving cancer care more affordable for millions of Americans, expanding coverage through Medicaid and the Affordable Care Act, and helping many who had received relief during the pandemic to keep saving \$800 a year on insurance premiums. The Inflation Reduction Act will soon cap total out-of-pocket prescription drug costs for seniors on Medicare at \$2,000 a year—including for expensive cancer medicines—which could save some prostate cancer patients up to \$6,000 a year.

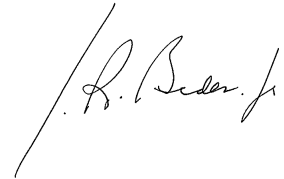
We are also working to make sure prevention, detection, and treatment procedures are available to patients of all communities and backgrounds. The National Institutes of Health is continuing expansive research into environmental and genetic factors to better understand why prostate cancer disproportionately affects Black men. In response to our Cancer Moonshot, the Department of Veterans Affairs expanded its National Precision Oncology Program to better tailor treatments to individual veterans. And we know that screening matters: Experts recommend that men with a higher risk of cancer—based on race or ethnicity, family history, or other factors—discuss it with their doctors.

Everyone's journey with cancer is different, but the First Lady and I know how hard it can be on the whole family. To all those caring for loved ones with prostate cancer and all those facing it themselves, we stand with you. My Administration is working around the clock on breakthroughs that can bring hope and more choices to the fight against this disease.

NOW, THEREFORE, I, JOSEPH R. BIDEN JR., President of the United States of America, by virtue of the authority vested in me by the Constitution and the laws of the United States, do hereby proclaim September 2023

as National Prostate Cancer Awareness Month. I encourage citizens, government agencies, private businesses, nonprofit organizations, and other interested groups to join in activities that will increase awareness of what Americans can do to prevent and cure prostate cancer.

IN WITNESS WHEREOF, I have hereunto set my hand this thirty-first day of August, in the year of our Lord two thousand twenty-three, and of the Independence of the United States of America the two hundred and forty-eighth.

A handwritten signature in black ink, appearing to read "Joe Biden", is written over a diagonal line that extends from the bottom left towards the top right.

Presidential Documents

Proclamation 10614 of August 31, 2023

National Recovery Month, 2023

By the President of the United States of America

A Proclamation

During National Recovery Month, we celebrate the more than 20 million Americans who have had the courage to seek help for substance use disorder, showing millions of others that recovery is possible. We honor their resilience and recommit to making sure that every American has access to the services and support they need to rebuild lives of purpose and hope.

Substance use disorder affects families in every corner of our country. Drug overdoses last year took more than 100,000 American lives. Addressing this crisis is a core pillar of my Unity Agenda—one of the big issues we can tackle together as a Nation.

That work starts by fulfilling the promise of true parity for mental health and substance use disorder treatment for all Americans. Mental health and substance use disorder care is health care. It is essential to people's well-being—to their ability to lead full and productive lives, to find joy and meaning, to take care of themselves and their loved ones, and to give back to their communities and our Nation. It is about dignity. Health insurers should cover it the same way they would cover treatment for a broken bone or any other kind of health condition. And since I took office, that is what we have been fighting to do.

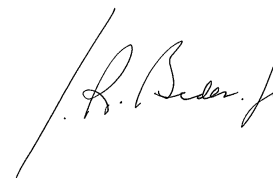
The American Rescue Plan delivered more than \$5 billion to expand mental health and substance use disorder services. I have worked with a group of bipartisan members of the Congress to make it easier for doctors to prescribe effective treatments for opioid use disorder, and the Food and Drug Administration has approved two Naloxone products for over-the-counter use, expanding access to life-saving opioid-reversal medications that can prevent fatal overdoses. We have expanded the Nation's system of Certified Community Behavioral Health Clinics, opening 140 new centers to provide frontline care, regardless of a patient's ability to pay. We also launched a nationwide Suicide and Crisis Lifeline (9–8–8), which connects callers to trained counselors around the clock. The Department of Labor created a Recovery-Ready Workplace Resource Hub to help employers support and hire people in recovery.

We have come a long way toward improving access to care and building our Nation's recovery support services infrastructure, but there is much more to do. Last month, my Administration proposed a new rule that would require health insurers to identify any gaps in the mental health and substance use disorder care they provide and to ensure that mental and physical health services are equally accessible. We are also working with States to ensure that millions of Medicaid patients enrolled in private Medicaid health plans have coverage for mental health and substance use disorder services. In all, my Fiscal Year 2024 Budget requests a historic \$46 billion for prevention, treatment, and recovery services for substance use disorder, as well as reducing the supply of deadly drugs.

Millions of Americans know and love someone who is in recovery. We want everyone to know that they are never alone. As a Nation working together, we can make recovery real for more Americans.

NOW, THEREFORE, I, JOSEPH R. BIDEN JR., President of the United States of America, by virtue of the authority vested in me by the Constitution and the laws of the United States, do hereby proclaim September 2023 as National Recovery Month. I call upon all citizens, government agencies, private businesses, nonprofit organizations, and other groups to take action to promote recovery and improve the health of our Nation.

IN WITNESS WHEREOF, I have hereunto set my hand this thirty-first day of August, in the year of our Lord two thousand twenty-three, and of the Independence of the United States of America the two hundred and forty-eighth.

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Presidential Documents

Proclamation 10615 of August 31, 2023

National Sickle Cell Awareness Month, 2023

By the President of the United States of America

A Proclamation

During National Sickle Cell Awareness Month, we recognize the perseverance and strength of the community of people living with this disease and recommit to developing more effective treatments.

Approximately 100,000 Americans have Sickle Cell Disease (SCD)—a group of inherited red blood cell disorders that can cause acute, chronic pain and serious health complications, including infections, strokes, organ damage, vision problems, and serious fatigue. Living with SCD often means putting the goals and plans of everyday life on hold to accommodate the demands of the disease, enduring frequent unplanned hospital stays and struggling to pay for costly treatments not covered by insurance.

There is no widely available cure for SCD. While bone marrow and stem cell transplants can work for some people with SCD, low donor availability and treatment-related complications put those options out of reach for many living with the disease. Although SCD affects people of all backgrounds, it disproportionately affects Black and Hispanic Americans. Combined with the documented disparities in treatment and care, people living with SCD often lack access to specialized care, treatment, and information about the disease, and they face barriers to receiving pain management and treatment support.

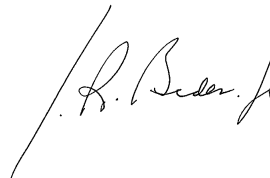
That is why my Administration is working tirelessly to close these health disparities and help deliver the care SCD patients and their families deserve. We are working with State, territorial, and local governments, nonprofits, and private sector partners to make that happen. The Centers for Disease Control and Prevention's Sickle Cell Data Collection program is gathering more comprehensive information on the experiences of SCD patients, which will inform new treatments and health care services. The Centers for Medicare & Medicaid Services is developing a Cell and Gene Therapy Access Model, which would help Medicaid beneficiaries gain access to potentially life-changing, high-cost specialty drugs for illnesses like sickle cell disease. The Health Resources and Services Administration is assisting with early identification and treatment of SCD and helping community-based organizations and clinics conduct testing, counseling, and education. The Food and Drug Administration has approved new drug therapies that help people with SCD manage their pain, and the National Institutes of Health (NIH) is funding clinical trials to test new advancements in the alleviation of chronic pain for those living with SCD. NIH is also researching possible personalized treatment approaches for SCD-associated pain. And through its "Cure Sickle Cell Initiative," we are accelerating the development of effective and accessible genetic therapies that will help cure SCD once and for all.

This month, we acknowledge all those living with SCD and the many health and medical professionals working to find new treatments and a cure for this disease. May we honor the progress we have made together and strengthen our resolve in finding a cure for SCD.

NOW, THEREFORE, I, JOSEPH R. BIDEN JR., President of the United States of America, by virtue of the authority vested in me by the Constitution

and the laws of the United States, do hereby proclaim September 2023 as National Sickle Cell Awareness Month. I call upon the people of the United States to learn more about Sickle Cell Disease and the progress we are making to reduce the burden of this disease on our fellow Americans.

IN WITNESS WHEREOF, I have hereunto set my hand this thirty-first day of August, in the year of our Lord two thousand twenty-three, and of the Independence of the United States of America the two hundred and forty-eighth.

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Presidential Documents

Proclamation 10616 of August 31, 2023

National Wilderness Month, 2023

By the President of the United States of America

A Proclamation

America's natural wonders are marvels of the world. People travel across seas and continents to behold the spirit of this great land embodied by our majestic mountains, breathtaking deserts, emerald valleys, and mighty rivers. During National Wilderness Month, we celebrate the power and promise of our country's extraordinary natural gifts and renew our commitment to protecting them for generations to come.

When we conserve our country's landscapes and wilderness, we do more than preserve their beauty for our own enjoyment. We safeguard the future of people who depend on and sustain the land as a way of life—Indigenous peoples, farmers and ranchers, recreation businesses, and rural communities. We enshrine landmarks that identify the places where the history of our Nation was made. We protect sacred spaces that have been stewarded by Tribal Nations since time immemorial. And we mitigate the impacts of climate change to help make our country more resilient.

A respect for nature's ability to support and enrich our lives has led my Administration to develop the most ambitious land and water conservation agenda in American history. During my first week in office, I issued an Executive Order establishing the country's first-ever National Conservation Goal to conserve at least 30 percent of our lands and waters by 2030. It is the cornerstone of my "America the Beautiful" campaign to support locally led and voluntary conservation and restoration efforts across the country. I also signed an Executive Order to protect America's forests, harness the power of nature in the fight against climate change, and initiate the first National Nature Assessment to evaluate the state of our lands, waters, and wildlife. And with funding through the Bipartisan Infrastructure Law and alongside the Department of Agriculture, I have created a nearly \$1 billion Community Wildfire Defense grant so that communities can take steps to protect themselves from the devastation of wildfires.

With the help of critical partners in every sector, we continue to make strong progress toward these conservation and climate goals. Together, my Bipartisan Infrastructure Law and Inflation Reduction Act represent the largest investment in climate and conservation ever—accelerating the clean energy economy here at home, protecting communities from climate impacts, and creating good-paying jobs that boost our economy. The new National Monuments I have designated will protect the soaring peaks of Camp Hale in Colorado, the irreplaceable Avi Kwa Ame in Nevada, the magnificent Castner Range in Texas, and the sacred sites and lands that surround the Grand Canyon. We have conserved the ancient and vast conifers of the Tongass National Forest; safeguarded the incomparable Bristol Bay watershed in Alaska; and restored protections for Bears Ears, Grand Staircase-Escalante, and the Northeast Canyons and Seamounts National Monuments.

My Administration has protected the Boundary Waters in Minnesota and Chaco Canyon in New Mexico, and we are accelerating efforts to restore the Great Lakes, the Chesapeake Bay, the Everglades, and the Columbia River Basin. At my direction, the Secretary of Commerce has begun exploring the designation of approximately 770,000 square miles in the Pacific Ocean,

an area almost three times the size of Texas, as a new national marine sanctuary to protect the integrity of our oceans. The Department of the Interior has also begun the process of preserving more than 13 million acres of lands of significant natural and cultural value in the Western Arctic. And I declared the entire United States Arctic Ocean off-limits to new oil and gas development. These landscapes and sacred spaces are precious. If they are lost, they can never be replaced.

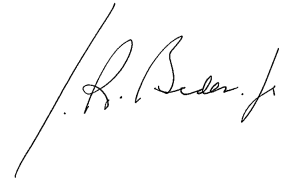
Though these are great accomplishments, I realize we still have much more work to do to protect our wilderness. That is why we are continuing to take ambitious steps to accelerate conservation. We are coordinating across Federal agencies and encouraging collaboration with non-Federal partners to better conserve ecological connectivity and wildlife corridors. We are also partnering with Tribal Nations, working together as co-stewards of the lands that are most precious to them.

To harness the tremendous power of the ocean to help in our fight against the climate crisis, we published the first-ever United States Ocean Climate Action Plan, and the Budget I released earlier this year includes new funding to ensure our natural areas are accessible to all Americans. I want to build on legislation I signed last year that established Wilderness Act protections for more than 182,000 acres of public lands in Nevada, so I look forward to continuing to work with the Congress to advance locally led and locally supported proposals for protecting our most unique and beautiful lands and waters.

This National Wilderness Month, we renew our commitment to protecting our wilderness areas and ensuring that all their splendor is passed down from generation to generation of Americans, helping to bridge our past and our future.

NOW, THEREFORE, I, JOSEPH R. BIDEN JR., President of the United States of America, by virtue of the authority vested in me by the Constitution and the laws of the United States, do hereby proclaim September 2023 as National Wilderness Month. I encourage all Americans to experience our Nation's outdoor heritage, to recreate responsibly and leave no trace, to celebrate the value of preserving an enduring wilderness, and to strengthen our commitment to protecting these vital lands and waters now and for future generations.

IN WITNESS WHEREOF, I have hereunto set my hand this thirty-first day of August, in the year of our Lord two thousand twenty-three, and of the Independence of the United States of America the two hundred and forty-eighth.

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Rules and Regulations

Federal Register

Vol. 88, No. 171

Wednesday, September 6, 2023

This section of the FEDERAL REGISTER contains regulatory documents having general applicability and legal effect, most of which are keyed to and codified in the Code of Federal Regulations, which is published under 50 titles pursuant to 44 U.S.C. 1510.

The Code of Federal Regulations is sold by the Superintendent of Documents.

DEPARTMENT OF AGRICULTURE

Rural Housing Service

7 CFR Part 3550

[Docket No. RHS–23–SFH–0017]

Single Family Housing Section 504 Home Repair Loans and Grants in Presidentially Declared Disaster Areas Pilot Program; Correction

AGENCY: Rural Housing Service, USDA.

ACTION: Notification; correction.

SUMMARY: The Rural Housing Service (RHS or Agency), a Rural Development (RD) agency of the United States Department of Agriculture (USDA), is correcting a notice that published in the **Federal Register** on July 18, 2023, entitled “Single Family Housing Section 504 Home Repair Loans and Grants in Presidentially Declared Disaster Areas Pilot Program.” The purpose of the notification was to announce the waiver of four regulatory requirements for the Section 504 Home Repair Loans and Grants in a Presidentially Declared Disaster Areas (PDDAs) pilot program. The purpose of this document is to correct inadvertent errors that were previously published in the notification on July 18, 2023, in the **Federal Register**.

DATES: The correction is effective September 6, 2023.

FOR FURTHER INFORMATION CONTACT: Anthony Williams, Management and Program Analyst, Special Programs, Single Family Housing Direct Loan Division, Rural Development, 1400 Independence Ave., Washington, DC 20250, U.S. Department of Agriculture, Email: anthonyl.williams@usda.gov; Phone: (202) 720–9649.

SUPPLEMENTARY INFORMATION:

Correction

In the **Federal Register** of July 18, 2023, in FR Doc. 2023–15174 (88 FR 45809), on page 45809, in the second

column, under the “Background” heading, in the third paragraph, beginning on the first line remove the text “The following twenty-four (24) States and U.S. Territories are selected based on presidentially declared disasters in calendar year 2022, involvement in the Rural Partners Network, and to provide wide geographic and historic production variation for the pilot: Alabama, Alaska, American Samoa, California, Florida, Georgia, Kansas, Kentucky, Minnesota, Mississippi, Montana, North Carolina, North Dakota, Nebraska, New Mexico, New York, Puerto Rico, South Carolina, South Dakota, Tennessee, Texas, Washington, West Virginia, and Wisconsin.” and add in its place the text “The pilot applies to all homes damaged by a Presidentially Declared Disaster that occurred on or after July 18, 2022, until the conclusion of the pilot on July 18, 2025. This pilot is subject to the availability of funds and the Agency will review the effectiveness of this pilot after one year.”

Karissa Stiers,

Acting Administrator, Rural Housing Service.

[FR Doc. 2023–19115 Filed 9–5–23; 8:45 am]

BILLING CODE 3410–XV–P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA–2023–1813; Project Identifier MCAI–2023–00980–R; Amendment 39–22540; AD 2023–17–51]

RIN 2120–AA64

Airworthiness Directives; Bell Textron Canada Limited Helicopters

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule; request for comments.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for all Bell Textron Canada Limited Model 407 helicopters. The FAA previously sent this AD as an emergency AD to all known U.S. owners and operators of these helicopters. This AD was prompted by a report of a disbonded area in a tail rotor (T/R) blade. This AD requires determining if an affected T/R

blade is installed, inspecting each of those T/R blades and, depending on the results, replacing the T/R blade as specified in a Transport Canada emergency AD, which is incorporated by reference. This AD also limits the installation of T/R blades to certain T/R blades. The FAA is issuing this AD to address the unsafe condition on these products.

DATES: This AD is effective September 21, 2023. Emergency AD 2023–17–51, issued on August 18, 2023, which contained the requirements of this amendment, was effective with actual notice.

The Director of the Federal Register approved the incorporation by reference of a certain publication identified in this AD as of September 21, 2023.

The FAA must receive comments on this AD by October 23, 2023.

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- *Federal eRulemaking Portal:* Go to [regulations.gov](https://www.regulations.gov). Follow the instructions for submitting comments.

- *Fax:* (202) 493–2251.

- *Mail:* U.S. Department of Transportation, Docket Operations, M–30, West Building Ground Floor, Room W12–140, 1200 New Jersey Avenue SE, Washington, DC 20590.

- *Hand Delivery:* Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

AD Docket: You may examine the AD docket at [regulations.gov](https://www.regulations.gov) under Docket No. FAA–2023–1813; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this final rule, the Transport Canada emergency AD, any comments received, and other information. The street address for Docket Operations is listed above.

Material Incorporated by Reference:

- For Transport Canada material that is incorporated by reference in this final rule, contact Transport Canada, Transport Canada National Aircraft Certification, 159 Cleopatra Drive, Nepean, Ontario, K1A 0N5, CANADA; phone 888–663–3639; email TC.AirworthinessDirectives-Consignesdenavigabilite.TC@tc.gc.ca; internet tc.canada.ca/en/aviation. You may find the Transport Canada material

on the Transport Canada website at tc.canada.ca/en/aviation.

- You may view this material at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy., Room 6N-321, Fort Worth, TX 76177. For information on the availability of this material at the FAA, call (817) 222-5110. It is also available at [regulations.gov](https://www.regulations.gov) under Docket No. FAA-2023-1813.

Other Related Service Information: For Bell service information identified in this final rule, contact Bell Textron Canada Limited, 12,800 Rue de l'Avenir, Mirabel, Quebec J7J 1R4, Canada; phone 1-450-437-2862 or 1-800-363-8023; fax 1-450-433-0272; email productsupport@bellflight.com; or at bellflight.com/support/contact-support. You may also view this service information at the FAA contact information under *Material Incorporated by Reference* above.

FOR FURTHER INFORMATION CONTACT: Dan McCully, Aviation Safety Engineer, FAA, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; phone (404) 474-5548; email william.mccully@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

The FAA invites you to send any written data, views, or arguments about this final rule. Send your comments to an address listed under **ADDRESSES**. Include "Docket No. FAA-2023-1813; Project Identifier MCAI-2023-00980-R" at the beginning of your comments. The most helpful comments reference a specific portion of the final rule, explain the reason for any recommended change, and include supporting data. The FAA will consider all comments received by the closing date and may amend this final rule because of those comments.

Except for Confidential Business Information (CBI) as described in the following paragraph, and other information as described in 14 CFR 11.35, the FAA will post all comments received, without change, to [regulations.gov](https://www.regulations.gov), including any personal information you provide. The agency will also post a report summarizing each substantive verbal contact received about this final rule.

Confidential Business Information

CBI is commercial or financial information that is both customarily and actually treated as private by its owner. Under the Freedom of Information Act (FOIA) (5 U.S.C. 552), CBI is exempt from public disclosure. If your comments responsive to this AD contain commercial or financial information

that is customarily treated as private, that you actually treat as private, and that is relevant or responsive to this AD, it is important that you clearly designate the submitted comments as CBI. Please mark each page of your submission containing CBI as "PROPIN." The FAA will treat such marked submissions as confidential under the FOIA, and they will not be placed in the public docket of this AD. Submissions containing CBI should be sent to Dan McCully, Aviation Safety Engineer, FAA, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; phone (404) 474-5548; email william.mccully@faa.gov. Any commentary that the FAA receives which is not specifically designated as CBI will be placed in the public docket for this rulemaking.

Background

The FAA issued Emergency AD 2023-17-51, dated August 18, 2023 (the emergency AD), to address an unsafe condition on Bell Textron Canada Limited Model 407 helicopters. The FAA sent the emergency AD to all known U.S. owners and operators of these helicopters. The emergency AD requires determining if certain serial-numbered T/R blade part number 406-016-100-119 is installed, tap inspecting each affected T/R blade for skin to core voids and, depending on the results, replacing the T/R blade. The emergency AD also limits the installation of T/R blades to affected T/R blades that have passed its required inspection and unaffected T/R blades.

The emergency AD was prompted by Transport Canada Emergency AD CF-2023-63, dated August 17, 2023 (Transport Canada AD CF-2023-63), issued by Transport Canada, which is the aviation authority for Canada, to correct an unsafe condition on certain serial-numbered Bell Textron Canada Limited Model 407 helicopters. Transport Canada AD CF-2023-63 states that an operator identified an abnormal sound in a T/R blade while manually rotating it. A subsequent tap inspection revealed a disbanded area that exceeds allowable limits. According to Transport Canada, an investigation by Bell Textron Canada Limited identified 43 T/R blades that could have missing adhesive between the upper skin and core that was caused during the manufacturing process. This condition, if not addressed, could result in severe vibration, failure of the T/R blade, and subsequent loss of T/R control. The FAA is issuing this AD to address the unsafe condition on these products.

You may examine Transport Canada AD CF-2023-63 in the AD docket at

[regulations.gov](https://www.regulations.gov) under Docket No. FAA-2023-1813.

Related Service Information Under 1 CFR Part 51

The FAA reviewed Transport Canada AD CF-2023-63, which requires determining if an affected T/R blade is installed, inspecting each of those T/R blades and, depending on the results, replacing the T/R blade. Transport Canada AD CF-2023-63 also limits installation of T/R blades to serviceable T/R blades, as defined therein.

This material is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in **ADDRESSES**.

Other Related Service Information

The FAA also reviewed Bell Alert Service Bulletin 407-23-132, dated August 14, 2023, which identifies affected T/R blade part number 406-016-100-119 serial numbers and specifies procedures for inspecting affected T/R blades for skin to core voids. Depending on the results, this service information specifies procedures for reporting information to Bell Product Support Engineering, returning specified T/R blades to Bell for investigation, and replacing a T/R blade.

FAA's Determination

These products have been approved by the aviation authority of another country and are approved for operation in the United States. Pursuant to the FAA's bilateral agreement with this State of Design Authority, it has notified the FAA of the unsafe condition described in its emergency AD referenced above. The FAA is issuing this AD after determining that the unsafe condition described previously is likely to exist or develop on other products of the same type design.

AD Requirements

This AD requires accomplishing the actions specified in Transport Canada AD CF-2023-63, described previously, as incorporated by reference, except for any differences identified as exceptions in the regulatory text of this AD and except as discussed under "Differences Between this AD and the Transport Canada Emergency AD."

Explanation of Required Compliance Information

In the FAA's ongoing efforts to improve the efficiency of the AD process, the FAA developed a process to use some civil aviation authority (CAA) ADs as the primary source of information for compliance with

requirements for corresponding FAA ADs. The FAA has been coordinating this process with manufacturers and CAAs. As a result, Transport Canada AD CF-2023-63 is incorporated by reference in this FAA AD. This AD, therefore, requires compliance with Transport Canada AD CF-2023-63 in its entirety through that incorporation, except for any differences identified as exceptions in the regulatory text of this AD. Using common terms that are the same as the heading of a particular section in Transport Canada AD CF-2023-63 does not mean that operators need comply only with that section. For example, where the AD requirement refers to “all required actions and compliance times,” compliance with this AD requirement is not limited to the section titled “Corrective Actions” in Transport Canada AD CF-2023-63.

Differences Between This AD and the Transport Canada Emergency AD

Transport Canada AD CF-2023-63 applies to certain serial-numbered Bell Textron Canada Limited Model 407 helicopters, whereas this AD applies to all Bell Textron Canada Limited Model 407 helicopters. Transport Canada AD CF-2023-63 does not clearly specify how to inspect affected T/R blades for skin to core voids, whereas this AD requires tap inspecting each affected T/R blade for skin to core voids.

Justification for Immediate Adoption and Determination of the Effective Date

Section 553(b)(3)(B) of the Administrative Procedure Act (APA) (5 U.S.C. 551 *et seq.*) authorizes agencies to dispense with notice and comment procedures for rules when the agency, for “good cause,” finds that those procedures are “impracticable, unnecessary, or contrary to the public interest.” Under this section, an agency, upon finding good cause, may issue a final rule without providing notice and seeking comment prior to issuance. Further, section 553(d) of the APA authorizes agencies to make rules effective in less than thirty days, upon a finding of good cause.

An unsafe condition exists that required the immediate adoption of Emergency AD 2023-17-51, issued on August 18, 2023, to all known U.S. owners and operators of these helicopters. The FAA found that the risk to the flying public justified waiving notice and comment prior to adoption of this rule because each T/R blade is critical to the control of a helicopter. Debonding of a T/R blade could lead to instantaneous failure before detection. Additionally, affected T/R blades are installed on high usage helicopters,

which could increase the likeliness of occurrence of a failure. In light of this, the initial action required by this AD must be accomplished within 10 hours time-in-service or 14 days, whichever occurs first. This compliance time is shorter than the time necessary for the public to comment and for publication of the final rule. These conditions still exist, therefore, notice and opportunity for prior public comment are impracticable and contrary to the public interest pursuant to 5 U.S.C. 553(b)(3)(B).

In addition, the FAA finds that good cause exists pursuant to 5 U.S.C. 553(d) for making this amendment effective in less than 30 days, for the same reasons the FAA found good cause to forego notice and comment.

Regulatory Flexibility Act

The requirements of the Regulatory Flexibility Act (RFA) do not apply when an agency finds good cause pursuant to 5 U.S.C. 553 to adopt a rule without prior notice and comment. Because FAA has determined that it has good cause to adopt this rule without prior notice and comment, RFA analysis is not required.

Costs of Compliance

The FAA estimates that this AD affects up to 43 helicopters of U.S. registry. Labor rates are estimated at \$85 per work-hour. Based on these numbers, the FAA estimates the following costs to comply with this AD.

Determining if an affected T/R blade is installed takes about 0.5 work-hour for an estimated cost of \$43 per helicopter and up to \$1,849 for the U.S. fleet. Tap inspecting an affected T/R blade takes about 1 work-hour for an estimated cost of \$85 per T/R blade. If required, replacing a T/R blade takes about 5 work-hours and parts cost about \$42,951 for an estimated cost of \$43,376 per T/R blade.

The FAA has included all known costs in its cost estimate. According to the manufacturer, however, some of the costs of this AD may be covered under warranty, thereby reducing the cost impact on affected operators.

Authority for This Rulemaking

Title 49 of the United States Code specifies the FAA’s authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs describes in more detail the scope of the Agency’s authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under

that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

This AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

- (1) Is not a “significant regulatory action” under Executive Order 12866, and
- (2) Will not affect intrastate aviation in Alaska.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

PART 39—AIRWORTHINESS DIRECTIVES

- 1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

- 2. The FAA amends § 39.13 by adding the following new airworthiness directive:

2023-17-51 Bell Textron Canada Limited: Amendment 39-22540; Docket No. FAA-2023-1813; Project Identifier MCAI-2023-00980-R.

(a) Effective Date

The FAA issued Emergency Airworthiness Directive (AD) 2023-17-51 on August 18, 2023, directly to affected owners and operators. As a result of such actual notice, the emergency AD was effective for those owners and operators on the date it was provided. This AD contains the same requirements as the emergency AD and, for those who did not receive actual notice, is effective on September 21, 2023.

(b) Affected ADs

None.

(c) Applicability

This AD applies to Bell Textron Canada Limited Model 407 helicopters, certificated in any category.

(d) Subject

Joint Aircraft Service Component (JASC) Code: 6410, Tail Rotor Blades.

(e) Unsafe Condition

This AD was prompted by a report of a disbonded area in a tail rotor (T/R) blade due to missing adhesive between the upper skin and core. The FAA is issuing this AD to detect skin to core voids that exceed allowable limits in affected T/R blades. The unsafe condition, if not addressed, could result in severe vibration, failure of the T/R blade, and subsequent loss of T/R control.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Requirements

Except as specified in paragraphs (h) and (i) of this AD: Comply with all required actions and compliance times specified in, and in accordance with, Transport Canada Emergency AD CF-2023-63, dated August 17, 2023 (Transport Canada AD CF-2023-63).

(h) Exceptions to Transport Canada AD CF-2023-63

(1) Where Transport Canada AD CF-2023-63 refers to its effective date, this AD requires using the effective date of this AD.

(2) Where Transport Canada AD CF-2023-63 requires compliance in terms of hours air time, this AD requires compliance using hours time-in-service.

(3) Where paragraph A.2. of Transport Canada AD CF-2023-63 requires inspecting an affected T/R blade and the service information referenced in paragraph A.2. of Transport Canada AD CF-2023-63 specifies inspecting an affected T/R blade, this AD requires using a steel tap hammer and tap inspecting each affected T/R blade.

(4) Where the service information referenced in Transport Canada AD CF-2023-63 specifies returning parts to the manufacturer, this AD does not include that requirement.

(i) No Reporting Requirement

Although the service information referenced in Transport Canada AD CF-2023-63 specifies to submit certain information to the manufacturer, this AD does not include that requirement.

(j) Special Flight Permits

A special flight permit may be issued in accordance with 14 CFR 21.197 and 21.199 to operate the helicopter to a location where the tap inspection can be performed, provided no passengers are onboard.

(k) Alternative Methods of Compliance (AMOCs)

(1) The Manager, International Validation Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 39.19. In accordance

with 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the International Validation Branch, mail it to the address identified in paragraph (l) of this AD or email to: 9-AVS-AIR-730-AMOC@faa.gov. If mailing information, also submit information by email.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(l) Additional Information

For more information about this AD, contact Dan McCully, Aviation Safety Engineer, FAA, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; phone (404) 474-5548; email william.mccully@faa.gov.

(m) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(i) Transport Canada Emergency AD CF-2023-63, dated August 17, 2023.

(ii) [Reserved]

(3) For Transport Canada Emergency AD CF-2023-63, contact Transport Canada, Transport Canada National Aircraft Certification, 159 Cleopatra Drive, Nepean, Ontario, K1A 0N5, CANADA; phone 888-663-3639; email TC.AirworthinessDirectives-Consignesdenavigabilite.TC@tc.gc.ca; internet tc.canada.ca/en/aviation. You may find the Transport Canada material on the Transport Canada website at tc.canada.ca/en/aviation.

(4) You may view this service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy., Room 6N-321, Fort Worth, TX 76177. For information on the availability of this material at the FAA, call (817) 222-5110.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, email: fr.inspection@nara.gov, or go to: www.archives.gov/federal-register/cfr/ibr-locations.html.

Issued on August 25, 2023.

Victor Wicklund,

Deputy Director, Compliance & Airworthiness Division, Aircraft Certification Service.

[FR Doc. 2023-19324 Filed 9-1-23; 4:15 pm]

BILLING CODE 4910-13-P

DEPARTMENT OF TRANSPORTATION**Federal Aviation Administration****14 CFR Part 71**

[Docket No. FAA-2022-0216; Airspace Docket No. 19-AAL-63]

RIN 2120-AA66

Amendment of United States Area Navigation (RNAV) Route T-230; St. Paul Island, AK

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule; correction.

SUMMARY: This action corrects a final rule published by the FAA in the **Federal Register** on July 17, 2023, that amends United States Area Navigation (RNAV) route T-230 in the vicinity of St. Paul Island, AK, in support of a large and comprehensive T-route modernization project for the state of Alaska. The final rule identified the GARRS, AK, route point as a waypoint (WP), in error. This action makes an editorial correction to the reference of the GARRS, AK, WP to change it to be reflected as a Fix and match the FAA's National Airspace System Resource (NASR) database information.

DATES: Effective date 0901 UTC, October 5, 2023. The Director of the Federal Register approves this incorporation by reference action under 1 CFR part 51, subject to the annual revision of FAA Order JO 7400.11 and publication of conforming amendments.

ADDRESSES: FAA Order JO 7400.11G, Airspace Designations and Reporting Points, and subsequent amendments can be viewed online at https://www.faa.gov/air_traffic/publications/. For further information, you can contact the Rules and Regulations Group, Federal Aviation Administration, 800 Independence Avenue SW, Washington, DC 20591; telephone: (202) 267-8783.

FOR FURTHER INFORMATION CONTACT:

Steven Roff, Rules and Regulations Group, Office of Policy, Federal Aviation Administration, 800 Independence Avenue SW, Washington, DC 20591; telephone: (202) 267-8783.

SUPPLEMENTARY INFORMATION:**History**

The FAA published a final rule in the **Federal Register** (88 FR 45329; July 17, 2023), amending T-230 in support of a large and comprehensive T-route modernization project for the state of Alaska. Subsequent to publication of the final rule, the FAA determined that the GARRS, AK, route point was inadvertently identified as a WP, in

error. This rule corrects that error by changing the reference of the GARRS, AK, WP to the GARRS, AK, Fix. This is an editorial change only to match the FAA's NASR database information and does not alter the alignment of the affected T-230 route.

Correction to Final Rule

Accordingly, pursuant to the authority delegated to me, reference to the GARRS, AK, WP that is reflected in Docket No. FAA-2022-0216, as published in the **Federal Register** of

July 17, 2023 (88 FR 45329), FR Doc. 2023-15011, is corrected as follows:

■ 1. In FR Doc. 2023-15011, appearing on page 45330 correct the table for T-230 St. Paul Island, AK (SPY) to King Salmon, AK (AKN) to read:

T-230 St. Paul Island, AK (SPY) to King Salmon, AK (AKN) [Amended]

St. Paul Island, AK (SPY)	NDB/DME	(Lat. 57°09'25.20" N, long. 170°13'58.77" W)
GARRS, AK	Fix	(Lat. 58°19'05.80" N, long. 161°20'31.74" W)
Salmon, AK (AKN)	VORTAC	(Lat. 58°43'28.97" N, long. 156°45'08.45" W)

* * * * *

Issued in Washington, DC, on August 30, 2023.

Karen Chiodini,

Acting Manager, Airspace Rules and Regulations.

[FR Doc. 2023-19095 Filed 9-5-23; 8:45 am]

BILLING CODE 4910-13-P

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

15 CFR Part 922

[Docket No. 230829-0205]

RIN 0648-BM58

Florida Keys National Marine Sanctuary: Establishment of Temporary Special Use Area for Coral Nursery

AGENCY: Office of National Marine Sanctuaries (ONMS), National Ocean Service (NOS), National Oceanic and Atmospheric Administration (NOAA), Department of Commerce (DOC).

ACTION: Final temporary rule; emergency action.

SUMMARY: The National Oceanic and Atmospheric Administration (NOAA) is issuing a final temporary rule establishing a special use area which will prohibit all entry except for restoration activities under a valid Office of National Marine Sanctuaries (ONMS) permit, continuous transit without interruption, and for law enforcement purposes into a 0.07 square mile area approximately five miles southeast of the community of Tavernier, on the island of Key Largo, within Federal waters of the Florida Keys National Marine Sanctuary (FKNMS) from September 6, 2023 to November 6, 2023. This temporary rule is necessary to prevent or minimize destruction of, loss of, or injury to sanctuary resources, specifically to facilitate restoration activities to improve or repair living habitats through protecting coral nursery stock at

this site from potential impacts caused by anchor damage and/or fishing gear. This temporary special use area will expire within 60 days unless it is extended an additional 60 days.

DATES: This final temporary rule is effective September 6, 2023 through November 6, 2023.

ADDRESSES: Sarah Fangman, Superintendent, Florida Keys National Marine Sanctuary, 33 East Quay Road, Key West, FL 33040, 305-360-2713 phone, or by email at sarah.fangman@noaa.gov.

Additional background materials can be found on the FKNMS website at <https://floridakeys.noaa.gov>.

FOR FURTHER INFORMATION CONTACT:

Sarah Fangman, Superintendent, Florida Keys National Marine Sanctuary, 33 East Quay Road, Key West, FL 33040, 305-360-2713 phone, or by email at sarah.fangman@noaa.gov.

SUPPLEMENTARY INFORMATION: NOAA is by this final rule creating a temporary special use area for the purpose of coral restoration located approximately five miles southeast of the community of Tavernier, on the island of Key Largo, within Federal waters of FKNMS. Section 15 CFR 922.164(e) of the FKNMS regulations allows the ONMS Director to set aside discrete areas of the Sanctuary as special use areas in order to provide for, among other uses, the restoration of degraded or otherwise injured sanctuary resources (15 CFR 922.164(e)(1)(i)). A special use area shall be no larger than the size the ONMS Director deems reasonably necessary to accomplish the applicable objective. No person may enter a special use area except to conduct restoration activities under a valid ONMS permit, for continuous transit without interruption, or for law enforcement purposes. Activities that are currently allowed in the area, including fishing, will be prohibited.

This temporary special use area is established to limit the potential for physical impact to a coral nursery that are being temporarily relocated to deeper waters to protect the nursery corals from heat stress caused by the

current on-going marine heat wave. Creation of this temporary special use area will limit the potential for physical impact to this sensitive coral nursery stock from anchoring, unintentional fouling of fishing gear, and bottom tending fishing gear including traps. The ONMS Director has determined that the size of 0.07 square miles is no larger than the size reasonably necessary to protect the coral nursery stock from physical damage. NOAA will provide notice of the location of this area through sanctuary radio announcements, press releases, and with assistance from the U.S. Coast Guard and FKNMS staff. NOAA has requested that the U.S. Coast Guard give notification to vessels, via notice to mariners, to remain in continuous transit through this temporary area.

Justification for Emergency Action

This action is taken in accordance with 15 CFR 922.165 of the FKNMS regulations (62 FR 32154, June 12, 1997). Section 922.165 provides that, where necessary to prevent or minimize the destruction of, loss of, or injury to a Sanctuary resource, any and all activities are subject to immediate temporary regulation, including prohibition, for up to 60 days, with one 60-day extension. This final temporary rule is necessitated by the current ongoing marine heat wave that is impacting and likely killing coral reefs in the Florida Keys at an unprecedented rate and scale. South Florida sea temperatures as reported by NOAA are 35°C, which is the warmest on record. These conditions became unsustainable for coral reef ecosystems in July and expert forecasts suggest that extreme ocean temperatures will likely persist until at least October 2023. At most risk are the coral nursery stock because these are located in shallow, nearshore protected environments that heat up much more than offshore locations. There are currently 14 active coral nursery sites throughout the Florida Keys. These nursery sites are strategically located in close proximity to the sites where the nursery coral will

be outplanted to promote coral restoration. Active coral restoration in the Florida Keys is necessary to facilitate coral restoration, as in the last 40 years, healthy coral cover in the Florida Keys reefs has declined by more than 90 percent.

In the face of the current marine heat wave, four of these nursery sites have already sustained mortality of 80–90% and the others are now showing increased signs of stress and bleaching. While some of the coral nursery stock from these sites is being relocated to land facilities, the capacity of these land-based systems is not adequate to hold the bulk of the biomass. NOAA and restoration partners have identified deep water locations that currently have temperatures below the bleaching threshold, are not exposed to deleterious levels of Ultraviolet (UV) radiation and experience substantial water movement, all conditions more conducive to coral survival. A portion of the most valuable corals, including representative colonies of each species of boulder and branching corals, samples of elkhorn coral, staghorn coral, star corals (*Orbicella spp.*), pillar corals and cactus coral listed under the Endangered Species Act, as well as multiple representative genotypes of these corals to ensure we protect the genetic diversity of these species, are being relocated to deeper water sites within FKNMS Federal waters. Temperature meters at these deep sites have consistently shown readings below the bleaching threshold of 30.5°C.

This emergency action establishes a new temporary special use area to limit the potential for physical impact to this sensitive coral nursery stock that is being grown to support critical sanctuary restoration efforts. Physical impact could result from anchoring, unintentional fouling of fishing gear, and bottom tending fishing gear including traps. The protections afforded by establishing this special use area need to be in place to avoid further damage to these sensitive nursery corals that have already experienced impact from heat stress. As such, immediate establishment of this special use area is necessary to prevent or minimize the destruction of, loss of, or injury to Sanctuary resources.

Emergency Measures

This final temporary rule establishes one special use area, approximately 0.07 square miles in size, into which all entry will be prohibited except for conducting restoration activities under a valid ONMS permit, continuous transit without interruption, and law enforcement purposes. This special use

area will be effective for 60 days after publication of this final rule, and could be extended an additional 60 days. If the special use area is extended another 60 days, NOAA would publish another document in the **Federal Register**.

The coordinates for this temporary special use area are included below.

Location and Boundary

Effective immediately, all entry except for conducting restoration activities under a valid ONMS permit, continuous transit without interruption, and law enforcement purposes is prohibited within this temporary special use area which is approximately five miles southeast of the community of Tavernier, on the island of Key Largo. The boundary for the special use area begins at Point 1 in the amended appendix and continues to each subsequent point in numerical order ending at Point 5. (Coordinates are unprojected (Geographic) and based on the North American Datum of 1983).

Penalties

Pursuant to 16 U.S.C. 1437(d)(1) and 15 CFR 922.8(a), any person who violates this rule is subject to a civil penalty. The maximum civil monetary penalty authorized under the National Marine Sanctuaries Act (NMSA) has been adjusted for inflation over time and is currently \$210,161 per violation per day. See 15 CFR 6.3(f)(13). Furthermore, NMSA also authorizes a proceeding in rem against any vessel used in violation of this regulation. See 16 U.S.C. 1437(d)(3).

Classification

A. National Marine Sanctuaries Act

This action is issued pursuant to the National Marine Sanctuaries Act, 16 U.S.C. 1431 *et seq.* and implementing regulations at 15 CFR part 922. This action is being taken pursuant to the emergency provision of the Florida Keys National Marine Sanctuary regulations at 15 CFR 922.164(e) and 922.165.

B. National Environmental Policy Act

NOAA's Policy and Procedures for Compliance with the National Environmental Policy Act (NEPA) and Related Authorities (NOAA Administrative Order (NAO) 216–6A and Companion Manual for NAO 216–6A) provide that all NOAA major Federal actions be reviewed with respect to environmental consequences on the human environment. Based on the NAO and Companion Manual, NOAA examined the final temporary rule for its potential to impact the quality of the human environment and concluded that it is categorically

excluded from the requirement to prepare an Environmental Assessment or Environmental Impact Statement in accordance with the NOAA Categorical Exclusion C1, as a habitat restoration action (see Appendix E of the NOAA NEPA Companion Manual). It qualifies for this categorical exclusion provided that such action: (1) transplants only organisms currently or formerly present at the site or in its immediate vicinity (if transplant is a component of the action); (2) does not require substantial placement of fill or dredging; (3) does not involve any removal of debris, excavation, or conditioning of soils unless such removal of debris, excavation, or conditioning of soils is geographically limited to the impact area such that site conditions will not impede or negatively alter natural processes, is in compliance with all permit and disposal requirements, and will not impact critical aquifers or recharge areas; and (4) does not involve an added risk of human or environmental exposure to toxic or hazardous substances, pathogens, or radioactive materials. In considering the list of extraordinary circumstances, NOAA determined that none would be triggered by the temporary emergency action. Therefore, NOAA concludes that this action will not result in significant effects to the human environment and is categorically excluded from the need for further NEPA review.

C. Executive Order 12866: Regulatory Impact

The Office of Management and Budget (OMB) has determined that this emergency rule is not significant within the meaning of section 3(f) of Executive Order 12866.

D. Regulatory Flexibility Act

This emergency rule is exempt from the procedures of the Regulatory Flexibility Act because the rule will not include prior notice or an opportunity for public comment pursuant to 5 U.S.C. 553 or other law. Accordingly, no regulatory flexibility analysis is required and none has been prepared.

E. Administrative Procedure Act

Pursuant to 5 U.S.C. 553(b)(3)(B), the Assistant Administrator of the National Ocean Service, NOAA, finds good cause to waive notice and public comment, as it would be impracticable and contrary to the public interest. Ongoing impacts from the current marine heat wave are resulting in immediate and large-scale impacts to the coral reef ecosystems in the Florida Keys with greatest risk to the most sensitive coral nursery stock located at several permitted sites

throughout the Florida Keys. Coral nursery sites are established throughout the Florida Keys and are essential in supporting coral restoration efforts due to the loss of healthy coral cover in the Florida Keys reefs that has declined by more than 90 percent in the last 40 years. While some of the coral nursery stock is being relocated to land-based sites some coral nursery sites are being moved to offshore and deeper areas with cooler waters. It is possible that humans entering the waters of the offshore areas where these coral nursery stock are being relocated could inadvertently cause irreparable damage from anchoring and/or dropping or entangling fishing gear in the coral nursery structures. Establishment of a special use area will prohibit all entry except to conduct restoration activities under a valid ONMS permit, for continuous transit without interruption, and for law enforcement purposes. The protections afforded by establishing this special use area need to be in place to avoid further damage to these sensitive nursery corals that have already experienced impact from heat stress. As such, further damage to these sensitive nursery corals would occur if the prohibition implemented by this rule is delayed to provide prior notice and opportunity for public comment.

For the reasons outlined above, NOAA finds it impracticable and contrary to the public interest to provide prior notice and public comment on these emergency measures. For the same reasons, NOAA finds good cause to waive the delay in the effective date of this rule pursuant to 5 U.S.C. 553(d)(3).

List of Subjects in 15 CFR Part 922

Administrative practice and procedure, Coastal zone, Natural resources, Historic preservation, Marine protected areas, Marine resources, National marine sanctuaries, Recreation and recreation areas, Corals.

Nicole R. LeBoeuf,

Assistant Administrator for Ocean Services and Coastal Zone Management, National Ocean Service, National Oceanic and Atmospheric Administration.

For the reasons set forth above, NOAA amends part 922, title 15 of the Code of Federal Regulations as follows:

PART 922—NATIONAL MARINE SANCTUARY PROGRAM REGULATIONS

■ 1. The authority citation for part 922 continues to read as follows:

Authority: 16 U.S.C. 1431 *et seq.*

■ 2. In appendix VI to subpart P, add a temporary entry for “Tavernier” at the end to read as follows:

Appendix VI to Subpart P of Part 922—Special-Use Areas Boundary Coordinates and Use Designations

* * * * *

Tavernier (Temporary)

(Restoration Only)—[The coordinates are unprojected (Geographic) and based on the North American Datum of 1983. The boundary for the special use area begins at Point 1 and continues to each successive point in numerical order until ending at Point 5 as listed in the coordinate in the following table.]

Point No.	Latitude	Longitude
1	24.96934	–80.44378
2	24.97076	–80.43955
3	24.96765	–80.43759
4	24.96612	–80.44186
5	24.96934	–80.44378

[FR Doc. 2023–19036 Filed 9–5–23; 8:45 am]

BILLING CODE 3510–NK–P

DEPARTMENT OF THE TREASURY

Office of Foreign Assets Control

31 CFR Part 586

Publication of Chinese Military-Industrial Complex Sanctions Regulations Web General Licenses 1, 1A, 1B, and 2

AGENCY: Office of Foreign Assets Control, Treasury.

ACTION: Publication of web general licenses.

SUMMARY: The Department of the Treasury’s Office of Foreign Assets Control (OFAC) is publishing four general licenses (GLs) issued in the Chinese Military Industrial Complex program: GLs 1, 1A, 1B, and 2, each of which was previously made available on OFAC’s website.

DATES: GL 1 was issued on January 8, 2021. See **SUPPLEMENTARY INFORMATION** for additional relevant dates.

FOR FURTHER INFORMATION CONTACT: OFAC: Assistant Director for Licensing, 202–622–2480; Assistant Director for Regulatory Affairs, 202–622–4855; or Assistant Director for Compliance, 202–622–2490.

SUPPLEMENTARY INFORMATION:

Electronic Availability

This document and additional information concerning OFAC are available on OFAC’s website: <https://ofac.treasury.gov>.

Background

On January 8, 2021, OFAC issued GL 1 to authorize certain transactions otherwise prohibited by Executive Order (E.O.) 13959 of November 12, 2020, “Addressing the Threat From Securities Investments That Finance Communist Chinese Military Companies” (85 FR 73185, November 17, 2020). Subsequently, OFAC issued two further iterations of GL 1, each of which authorized activities otherwise prohibited pursuant to E.O. 13959 as amended by E.O. 13974 of January 13, 2021, “Amending Executive Order 13959—Addressing the Threat From Securities Investments That Finance Communist Chinese Military Companies” (86 FR 4875, January 19, 2021): on January 26, 2021, OFAC issued GL 1A, which superseded GL 1; and on May 18, 2021, OFAC issued GL 1B, which superseded GL 1A. Each of these GLs is now expired. On January 14, 2021, OFAC issued GL 2 to authorize certain transactions otherwise prohibited by E.O. 13959, as amended. Each GL was made available on OFAC’s website (<https://ofac.treasury.gov>) when it was issued. The text of these GLs is provided below.

OFFICE OF FOREIGN ASSETS CONTROL

Executive Order 13959 of November 12, 2020

Addressing the Threat From Securities Investments That Finance Communist Chinese Military Companies

GENERAL LICENSE NO. 1

Authorizing Transactions Involving Securities of Certain Communist Chinese Military Companies

(a) Except as provided in paragraph (b) of this general license, all transactions and activities prohibited by section 1(a)(i) of Executive Order (E.O.) 13959 involving publicly traded securities, or any securities that are derivative of, or are designed to provide investment exposure to such securities, of an entity whose name closely matches the name of a Communist Chinese military company identified in the Annex to E.O. 13959 but that has not been listed on the Office of Foreign Assets Control’s Non-SDN Communist Chinese Military Companies List, are authorized through 9:30 a.m. eastern standard time, January 28, 2021.

(b) This general license does not authorize any transactions or activities otherwise prohibited by E.O. 13959, any other E.O. or statute, or any part of 31 CFR chapter V.

Andrea Gacki,

Director, Office of Foreign Assets Control.

Dated: January 8, 2021.

OFFICE OF FOREIGN ASSETS CONTROL

Executive Order 13959 of November 12, 2020

Addressing the Threat From Securities Investments That Finance Communist Chinese Military Companies, as Amended

GENERAL LICENSE NO. 1A

Authorizing Transactions Involving Securities of Certain Communist Chinese Military Companies

(a) Except as provided in paragraph (b) of this general license, all transactions and activities prohibited by section 1(a) of Executive Order (E.O.) 13959, as amended by E.O. 13974 of January 13, 2021, involving publicly traded securities, or any securities that are derivative of, or are designed to provide investment exposure to such securities, of an entity whose name closely matches, but does not exactly match, the name of a Communist Chinese military company as defined by section 4(a) of E.O. 13959, as amended, are authorized through 9:30 a.m. eastern daylight time, May 27, 2021.

(b) This general license does not authorize:

(1) Any transactions or activities involving publicly traded securities, or any securities that are derivative of, or are designed to provide investment exposure to such securities, of entities identified in the Office of Foreign Assets Control's Non-SDN Communist Chinese Military Companies List (NS-CCMC List) pursuant to section 4(a)(iii) of E.O. 13959, as amended, as a subsidiary of a person determined to be a Communist Chinese military company, including entities added to the NS-CCMC List on January 8, 2021 (CNOOC Limited, China Mobile Limited, China Telecom Corporation Limited, China Unicom (Hong Kong) Limited).

Note to paragraph (b)(1): Pursuant to section 1(a)(ii) of E.O. 13959, as amended, prohibitions relevant to entities identified in the NS-CCMC List pursuant to section 4(a)(iii) of E.O. 13959, as amended, including entities added to the NS-CCMC List on January 8, 2021 (CNOOC Limited, China Mobile Limited, China Telecom Corporation Limited, China Unicom (Hong Kong) Limited), take effect beginning 9:30 a.m. eastern time on the date that is 60 days after such listing.

(2) Any transactions or activities otherwise prohibited by E.O. 13959, as amended, any other E.O. or statute, or any part of 31 CFR chapter V.

(c) Effective January 27, 2021, General License No. 1, dated January 8, 2021, is replaced and superseded in its entirety by this General License No. 1A.

Bradley T. Smith,

Acting Director, Office of Foreign Assets Control.

Dated: January 26, 2021.

OFFICE OF FOREIGN ASSETS CONTROL

Executive Order 13959 of November 12, 2020

Addressing the Threat From Securities Investments That Finance Communist Chinese Military Companies, as Amended

GENERAL LICENSE NO. 1B

Authorizing Transactions Involving Securities of Certain Communist Chinese Military Companies

(a) Except as provided in paragraph (b) of this general license, all transactions and activities prohibited by section 1(a) of Executive Order (E.O.) 13959, as amended by E.O. 13974 of January 13, 2021, involving publicly traded securities, or any securities that are derivative of, or are designed to provide investment exposure to such securities, of an entity whose name closely matches, but does not exactly match, the name of a Communist Chinese military company as defined by section 4(a) of E.O. 13959, as amended, are authorized through 9:30 a.m. eastern daylight time, June 11, 2021.

(b) This general license does not authorize:

(1) Any transactions or activities involving publicly traded securities, or any securities that are derivative of, or are designed to provide investment exposure to such securities, of entities identified in the Office of Foreign Assets Control's Non-SDN Communist Chinese Military Companies List (NS-CCMC List) pursuant to section 4(a)(iii) of E.O. 13959, as amended, as a subsidiary of a person determined to be a Communist Chinese military company, including entities added to the NS-CCMC List on January 8, 2021 (CNOOC Limited, China Mobile Limited, China Telecom Corporation Limited, China Unicom (Hong Kong) Limited).

Note to paragraph (b)(1): Pursuant to section 1(a)(ii) of E.O. 13959, as amended, prohibitions relevant to entities identified in the NS-CCMC List pursuant to section 4(a)(iii) of E.O. 13959, as amended, including entities added to the NS-CCMC List on January 8, 2021 (CNOOC Limited, China Mobile Limited, China Telecom Corporation Limited, China Unicom (Hong Kong) Limited), take effect beginning 9:30 a.m. eastern time on the date that is 60 days after such listing.

(2) Any transactions or activities otherwise prohibited by E.O. 13959, as amended, any other E.O. or statute, or any part of 31 CFR chapter V.

(c) Effective May 18, 2021, General License No. 1A, dated January 26, 2021, is replaced and superseded in its entirety by this General License No. 1B.

Bradley T. Smith,

Acting Director, Office of Foreign Assets Control.

Dated: May 18, 2021.

OFFICE OF FOREIGN ASSETS CONTROL

Executive Order 13959 of November 12, 2020

Addressing the Threat From Securities Investments That Finance Communist Chinese Military Companies, as Amended

GENERAL LICENSE NO. 2

Authorizing Securities Exchanges Operated by U.S. Persons To Engage in Transactions Involving Securities of Communist Chinese Military Companies

(a) Except as provided in paragraph (b) of this general license, all transactions and activities by securities exchanges operated by U.S. persons prohibited by section 1(a)(ii) of Executive Order (E.O.) 13959, as amended by the E.O. of January 13, 2021, involving publicly traded securities, or any securities that are derivative of, or are designed to provide investment exposure to such securities, of any entity that is listed on the Office of Foreign Assets Control's Non-SDN Communist Chinese Military Companies List (NS-CCMC List) after 12:01 a.m. eastern standard time, January 14, 2021, are authorized through 12:01 a.m. eastern time on the date that is 365 days after the date the entity is listed on the NS-CCMC List.

(b) This general license does not authorize any transactions or activities otherwise prohibited by E.O. 13959, as amended, any other E.O. or statute, or any part of 31 CFR chapter V.

Andrea Gacki,

Director, Office of Foreign Assets Control.

Dated: January 14, 2021.

Andrea M. Gacki,

Director, Office of Foreign Assets Control.

[FR Doc. 2023-19133 Filed 9-5-23; 8:45 am]

BILLING CODE 4810-AL-P

DEPARTMENT OF HOMELAND SECURITY

Coast Guard

33 CFR Part 165

[Docket Number USCG-2023-0613]

RIN 1625-AA00

Safety Zone; Kanawha River, Mile Markers 41.5 to 42.5, Nitro, WV, Change in Dates

AGENCY: Coast Guard, DHS.

ACTION: Temporary final rule.

SUMMARY: The Coast Guard is establishing a temporary safety zone for navigable waters within a half mile radius of the Donald Legg Memorial Bridge. The safety zone is needed to protect personnel, vessels, and the marine environment from potential hazards created by adding a center section of the bridge. Entry of vessels or persons into this zone is prohibited unless specifically authorized by the

Captain of the Port Sector Ohio Valley (COTP) or a designated representative. This temporary final rule reflects a change in the dates of the bridge construction than we previously announced in a prior temporary final rule.

DATES: This rule is effective without actual notice from September 6, 2023 through September 18, 2023. For the purposes of enforcement, actual notice will be used from September 4, 2023 until September 6, 2023.

ADDRESSES: To view documents mentioned in this preamble as being available in the docket, go to <https://www.regulations.gov>, type USCG-2023-0613 in the search box and click "Search." Next, in the Document Type column, select "Supporting & Related Material."

FOR FURTHER INFORMATION CONTACT: If you have questions on this rule, call or email Petty Officer Chelsea Zimmerman, Marine Safety Unit Huntington, U.S. Coast Guard, telephone 304-733-0198, email Chelsea.M.Zimmerman@uscg.mil.

SUPPLEMENTARY INFORMATION:

I. Table of Abbreviations

CFR Code of Federal Regulations
COTP Captain of the Port
DHS Department of Homeland Security
FR Federal Register
NPRM Notice of proposed rulemaking
§ Section
U.S.C. United States Code

II. Background Information and Regulatory History

The Coast Guard previously published a temporary final rule for a safety zone on August 17, 2023, titled "Safety Zone; Kanawha River, Mile Markers 41.5 to 42.5, Nitro, WV" at 88 FR 55913. That safety zone was going to be effective August 28, 2023, through August 29, 2023. The Coast Guard received notice on August 29, 2023, that the project manager must change the dates of the bridge construction. Therefore, we must change the effective dates and enforcement times from that original safety zone temporary final rule. This rule replaces the previous rule issued on August 17, 2023, at 88 FR 55913. We will no longer be enforcing the safety zone on the dates described in that rule. Instead, this safety zone will be over the span of two weeks, from September 4, 2023, to September 18, 2023, and subject to enforcement when announced via Broadcast Notice to Mariners.

The Coast Guard is issuing this temporary rule without prior notice and opportunity to comment pursuant to authority under section 4(a) of the

Administrative Procedure Act (APA) (5 U.S.C. 553(b)). This provision authorizes an agency to issue a rule without prior notice and opportunity to comment when the agency for good cause finds that those procedures are "impracticable, unnecessary, or contrary to the public interest."

Under 5 U.S.C. 553(b)(B), the Coast Guard finds that good cause exists for not publishing a notice of proposed rulemaking (NPRM) with respect to this rule because publishing an NPRM would be impracticable. A safety zone is needed to alleviate safety concerns associated with construction operations for the purpose of adding the center section of the Donald Legg Memorial Bridge. It is impracticable to publish an NPRM because late notice was given for the change in enforcement dates, which now require the establishment of a safety zone by September 4, 2023, and lack sufficient time to provide a reasonable comment period and then consider those comments before issuing the rule.

Under 5 U.S.C. 553(d)(3), the Coast Guard finds that good cause exists for making this rule effective less than 30 days after publication in the **Federal Register**. Delaying the effective date of this rule would be impracticable and contrary to the public interest because we must establish the safety zone by September 4, 2023, in order to protect personnel, vessels, and the marine environment from the potential safety hazards associated with the bridge construction beginning on that date.

III. Legal Authority and Need for Rule

The Coast Guard is issuing this rule under authority in 46 U.S.C. 70034. The Captain of the Port Sector Ohio Valley (COTP) has determined that safety needs associated with construction operations on the Donald Legg Memorial Bridge from September 4, 2023, to September 18, 2023, present a safety concern. The purpose of this rulemaking is to ensure the safety of the public surrounding regulated area before, during, and after the construction event.

IV. Discussion of the Rule

This rule establishes a safety zone that will be subject to enforcement via Broadcast Notice to Mariners from September 4, 2023, through September 18, 2023, daily between 5:30 a.m. to 8 p.m. The safety zone will cover all navigable waters between mile markers 41.5 to 42.5 on the Kanawha River. The duration of the zone is intended to protect personnel, vessels, and the marine environment in these navigable waters while the bridge span is being

added. No vessel or person will be permitted to enter the safety zone without obtaining permission from the COTP or a designated representative. A designated representative means a Coast Guard Patrol Commander, including a Coast Guard coxswain, petty officer, or other officer operating a Coast Guard vessel and a Federal, State, and local officer designated by or assisting the Captain of the Port Sector Ohio Valley (COTP) in the enforcement of the safety zone.

Persons or vessels seeking to enter the safety zone must request permission from the COTP on VHF-FM channel 16 or by telephone at 1-502-779-5424. If permission is granted, all persons and vessels shall comply with the instructions of the COTP or designated representative.

The COTP or a designated representative will inform the public of the enforcement times and date for this safety zone through Broadcast Notices to Mariners, Local Notices to Mariners, and/or Safety Marine Information Broadcasts as appropriate.

V. Regulatory Analyses

We developed this rule after considering numerous statutes and Executive orders related to rulemaking. Below we summarize our analyses based on a number of these statutes and Executive orders, and we discuss First Amendment rights of protestors.

A. Regulatory Planning and Review

Executive Orders 12866 and 13563 direct agencies to assess the costs and benefits of available regulatory alternatives and, if regulation is necessary, to select regulatory approaches that maximize net benefits. This rule has not been designated a "significant regulatory action," under section 3(f) of Executive Order 12866, as amended by Executive Order 14094 (Modernizing Regulatory Review). Accordingly, this rule has not been reviewed by the Office of Management and Budget (OMB).

This regulatory action determination is based on the size, location, duration, and time-of-day of the regulated area. This rule is limited to the Kanawha River from mile 41.5 to 42.5 on September 4, 2023, through September 18, 2023, and will be enforced only during the times specified. Moreover, the Coast Guard will issue Broadcast Notice to Mariners via VHF-FM marine channel 16 about the regulated area and the rule allows vessels to seek permission to enter the area.

B. Impact on Small Entities

The Regulatory Flexibility Act of 1980, 5 U.S.C. 601–612, as amended, requires Federal agencies to consider the potential impact of regulations on small entities during rulemaking. The term “small entities” comprises small businesses, not-for-profit organizations that are independently owned and operated and are not dominant in their fields, and governmental jurisdictions with populations of less than 50,000. The Coast Guard certifies under 5 U.S.C. 605(b) that this rule will not have a significant economic impact on a substantial number of small entities.

While some owners or operators of vessels intending to transit the safety zone may be small entities, for the reasons stated in section V.A above, this rule will not have a significant economic impact on any vessel owner or operator.

Under section 213(a) of the Small Business Regulatory Enforcement Fairness Act of 1996 (Pub. L. 104–121), we want to assist small entities in understanding this rule. If the rule would affect your small business, organization, or governmental jurisdiction and you have questions concerning its provisions or options for compliance, please call or email the person listed in the **FOR FURTHER INFORMATION CONTACT** section.

Small businesses may send comments on the actions of Federal employees who enforce, or otherwise determine compliance with, Federal regulations to the Small Business and Agriculture Regulatory Enforcement Ombudsman and the Regional Small Business Regulatory Fairness Boards. The Ombudsman evaluates these actions annually and rates each agency’s responsiveness to small business. If you wish to comment on actions by employees of the Coast Guard, call 1–888–REG–FAIR (1–888–734–3247). The Coast Guard will not retaliate against small entities that question or complain about this rule or any policy or action of the Coast Guard.

C. Collection of Information

This rule will not call for a new collection of information under the Paperwork Reduction Act of 1995 (44 U.S.C. 3501–3520).

D. Federalism and Indian Tribal Governments

A rule has implications for federalism under Executive Order 13132, Federalism, if it has a substantial direct effect on the States, on the relationship between the National Government and the States, or on the distribution of

power and responsibilities among the various levels of government. We have analyzed this rule under that Order and have determined that it is consistent with the fundamental federalism principles and preemption requirements described in Executive Order 13132.

Also, this rule does not have tribal implications under Executive Order 13175, Consultation and Coordination with Indian Tribal Governments, because it does not have a substantial direct effect on one or more Indian tribes, on the relationship between the Federal Government and Indian tribes, or on the distribution of power and responsibilities between the Federal Government and Indian tribes.

E. Unfunded Mandates Reform Act

The Unfunded Mandates Reform Act of 1995 (2 U.S.C. 1531–1538) requires Federal agencies to assess the effects of their discretionary regulatory actions. In particular, the Act addresses actions that may result in the expenditure by a State, local, or tribal government, in the aggregate, or by the private sector of \$100,000,000 (adjusted for inflation) or more in any one year. Though this rule will not result in such an expenditure, we do discuss the effects of this rule elsewhere in this preamble.

F. Environment

We have analyzed this rule under Department of Homeland Security Directive 023–01, Rev. 1, associated implementing instructions, and Environmental Planning COMDTINST 5090.1 (series), which guide the Coast Guard in complying with the National Environmental Policy Act of 1969 (42 U.S.C. 4321–4370f), and have determined that this action is one of a category of actions that do not individually or cumulatively have a significant effect on the human environment. This rule involves establishing a temporary safety zone on the Kanawha River at mile 41.5 to 42.5 on September 4, 2023, through September 18, 2023. It is categorically excluded from further review under paragraph L60(a) of Appendix A, Table 1 of DHS Instruction Manual 023–01–001–01, Rev. 1. A Record of Environmental Consideration supporting this determination is available in the docket. For instructions on locating the docket, see the **ADDRESSES** section of this preamble.

G. Protest Activities

The Coast Guard respects the First Amendment rights of protesters. Protesters are asked to call or email the person listed in the **FOR FURTHER INFORMATION CONTACT** section to

coordinate protest activities so that your message can be received without jeopardizing the safety or security of people, places, or vessels.

List of Subjects in 33 CFR Part 165

Harbors, Marine safety, Navigation (water), Reporting and recordkeeping requirements, Security measures, Waterways.

For the reasons discussed in the preamble, the Coast Guard amends 33 CFR part 165 as follows:

PART 165—REGULATED NAVIGATION AREAS AND LIMITED ACCESS AREAS

■ 1. The authority citation for part 165 continues to read as follows:

Authority: 46 U.S.C. 70034, 70051, 70124; 33 CFR 1.05–1, 6.04–6, and 160.5; Department of Homeland Security Delegation No. 00170.1, Revision No. 01.3.

■ 2. Revise § 165.T08–0613 to read as follows:

§ 165.T08–0613 Safety Zone; Kanawha River, Mile Markers 41.5 to 42.5 Nitro, WV, Change in Dates.

(a) *Location.* The following area is a safety zone: all navigable waters of the Kanawha River from mile marker 41.5 to mile marker 42.5, extending the entire width of the river.

(b) *Definitions.* *Designated representative* means a Coast Guard Patrol Commander (PATCOM), including a Coast Guard coxswain, petty officer, or other officer operating a Coast Guard vessel and a Federal, State, and local officer designated by or assisting the Captain of the Port Ohio Valley (COTP) in the enforcement of the regulations in this section.

(c) *Regulations.* (1) Under the general safety zone regulations in subpart C of this part, you may not enter the safety zone described in paragraph (a) of this section unless authorized by the COTP or the COTP’s designated representative. The Coast Guard may patrol the event area under the direction of a designated Coast Guard Patrol Commander.

(2) To seek permission to enter, the COTP or the COTP’s representative may be contacted on Channel 16 VHF–FM (156.8 MHz) by the call sign “PATCOM”, or phone at 1–502–779–5424. Those in the safety zone must comply with all lawful orders or directions given to them by the COTP or the COTP’s designated representative.

(3) The Patrol Commander may forbid and control the movement of all vessels in the regulated area. When hailed or signaled by an official patrol vessel, a vessel shall come to an immediate stop and comply with the directions given. Failure to do so may result in expulsion

from the area, citation for failure to comply, or both.

(4) The Patrol Commander may terminate the event or the operation of any vessel at any time it is deemed necessary for the protection of life or property.

(5) The COTP will provide notice of the regulated area through advanced notice via local notice to mariners and broadcast notice to mariners and by on-scene designated representatives.

(d) *Enforcement periods.* This section will be subject to enforcement from September 4, 2023, through September 18, 2023, between 5:30 a.m. to 8 p.m.

Dated: August 30, 2023.

H.R. Mattern,

Captain, U.S. Coast Guard, Captain of the Port Sector Ohio Valley.

[FR Doc. 2023-19205 Filed 9-5-23; 8:45 am]

BILLING CODE 9110-04-P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 52

[EPA-R01-OAR-2023-0188; FRL-11025-02-R1]

Air Plan Approval; New Hampshire; Reasonable Available Control Technology for the 2008 and 2015 Ozone Standards

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: The Environmental Protection Agency (EPA) is approving portions of State Implementation Plan (SIP) revisions submitted by the State of New Hampshire that certify that the state has adopted regulations meeting the requirements for reasonably available control technology (RACT) for the 2008 and 2015 ozone national ambient air quality standards (NAAQS), and portions of amendments to a related regulation that New Hampshire revised to fulfill RACT requirements for these two NAAQS. We are also approving a revision to the state's definition of emergency generator. These actions are being taken in accordance with the Clean Air Act.

DATES: This rule is effective on October 6, 2023.

ADDRESSES: EPA has established a docket for this action under Docket Identification No. EPA-R01-OAR-2023-0188. All documents in the docket are listed on the <https://www.regulations.gov> website. Although listed in the index, some information is not publicly available, *i.e.*, CBI or other

information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, is not placed on the internet and will be publicly available only in hard copy form. Publicly available docket materials are available at <https://www.regulations.gov> or at the U.S. Environmental Protection Agency, EPA Region 1 Regional Office, Air and Radiation Division, 5 Post Office Square—Suite 100, Boston, MA. EPA requests that if at all possible, you contact the contact listed in the **FOR FURTHER INFORMATION CONTACT** section to schedule your inspection. The Regional Office's official hours of business are Monday through Friday, 8:30 a.m. to 4:30 p.m., excluding legal holidays and facility closures due to COVID-19.

FOR FURTHER INFORMATION CONTACT: Bob McConnell, Environmental Engineer, Air and Radiation Division (Mail Code 5-MD), U.S. Environmental Protection Agency, Region 1, 5 Post Office Square, Suite 100, Boston, Massachusetts, 02109-3912; (617) 918-1046.

SUPPLEMENTARY INFORMATION:

Throughout this document whenever “we,” “us,” or “our” is used, we mean EPA.

Table of Contents

- I. Background and Purpose
- II. Final Action
- III. Incorporation by Reference
- IV. Statutory and Executive Order Reviews

I. Background and Purpose

On July 10, 2023 (88 FR 43483), EPA published a Notice of Proposed Rulemaking (NPRM) for the State of New Hampshire. The NPRM proposed approval that the state has adopted regulations meeting the requirements for reasonably available control technology (RACT) for the 2008 and 2015 ozone national ambient air quality standards (NAAQS), amendments to Env-A 1300, NO_x RACT, which New Hampshire revised as part of its RACT requirements for these two ozone NAAQS, a revision to the State's definition of emergency generator to address a court decision that vacated the allowance for such engines to operate for demand-response purposes, and removal from the SIP of two previously issued RACT orders related to Merrimack Station. During the public comment period, EPA received one comment letter from the Sierra Club dated August 9, 2023, that opposed New Hampshire's NO_x RACT limits applicable to coal-fired cyclone boilers. EPA is evaluating those comments in light of our July 10, 2023 proposed approval, and will take final action on New Hampshire's NO_x RACT requirements for coal-fired cyclone

boilers and New Hampshire's request to withdraw from the SIP two previously issued RACT orders applicable to Merrimack Station boilers in a subsequent final rule. We did not receive comments on any other portions of our July 10, 2023 proposed action and are therefore approving within this final rule New Hampshire's SIP revisions presented in our July 10, 2023 proposal for all provisions for which we did not receive comments. Please see our July 10, 2023 proposed rule for additional background and a more detailed explanation of EPA's rationale related to this action.

II. Final Action

EPA is approving portions of SIP revisions submitted by the State of New Hampshire. Specifically, EPA is approving the VOC RACT certifications for the 2008 and 2015 ozone NAAQS; the NO_x RACT certifications for these same standards except for the certification regarding NO_x RACT for coal-fired cyclone boilers for which EPA received adverse comments; the state's revised NO_x RACT regulation, Env-A 1300, except for sections within Env-A 1303.06 concerning limits for coal-fired cyclone boilers for which EPA received adverse comments; and the state's revised definition of emergency generator in Regulation Env-A 100.

III. Incorporation by Reference

In this rule, the EPA is finalizing regulatory text that includes incorporation by reference. In accordance with requirements of 1 CFR 51.5, the EPA is finalizing the incorporation by reference of New Hampshire regulation Env-A 1300, NO_x RACT, and a revision to the state's definition of emergency generator in regulation Env-A 100, which contains the state's definition of terms used within its air pollution control regulations, as discussed in Section II of this preamble and described in the amendments to 40 CFR part 52 set forth below. The EPA has made, and will continue to make, these documents generally available through <https://www.regulations.gov> and at the EPA Region 1 Office (please contact the person identified in the **FOR FURTHER INFORMATION CONTACT** section of this preamble for more information). Therefore, these materials have been approved by EPA for inclusion in the State implementation plan, have been incorporated by reference by EPA into that plan, are fully federally enforceable under sections 110 and 113 of the CAA as of the effective date of the final rulemaking of EPA's approval, and will

be incorporated by reference in the next update to the SIP compilation.¹

IV. Statutory and Executive Order Reviews

Under the Clean Air Act, the Administrator is required to approve a SIP submission that complies with the provisions of the Act and applicable Federal regulations. 42 U.S.C. 7410(k); 40 CFR 52.02(a). Thus, in reviewing SIP submissions, EPA's role is to approve state choices, provided that they meet the criteria of the Clean Air Act. Accordingly, this action merely approves state law as meeting Federal requirements and does not impose additional requirements beyond those imposed by state law. For that reason, this action:

- Is not a significant regulatory action subject to review by the Office of Management and Budget under Executive Orders 12866 (58 FR 51735, October 4, 1993) and 13563 (76 FR 3821, January 21, 2011);
 - Does not impose an information collection burden under the provisions of the Paperwork Reduction Act (44 U.S.C. 3501 *et seq.*);
 - Is certified as not having a significant economic impact on a substantial number of small entities under the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*);
 - Does not contain any unfunded mandate or significantly or uniquely affect small governments, as described in the Unfunded Mandates Reform Act of 1995 (Pub. L. 104–4);
 - Does not have federalism implications as specified in Executive Order 13132 (64 FR 43255, August 10, 1999);
 - Is not an economically significant regulatory action based on health or safety risks subject to Executive Order 13045 (62 FR 19885, April 23, 1997);
 - Is not a significant regulatory action subject to Executive Order 13211 (66 FR 28355, May 22, 2001); and
 - Is not subject to requirements of Section 12(d) of the National Technology Transfer and Advancement Act of 1995 (15 U.S.C. 272 note) because application of those requirements would be inconsistent with the Clean Air Act.
- In addition, the SIP is not approved to apply on any Indian reservation land or in any other area where EPA or an Indian tribe has demonstrated that a tribe has jurisdiction. In those areas of Indian country, the rule does not have tribal implications and will not impose substantial direct costs on tribal

governments or preempt tribal law as specified by Executive Order 13175 (65 FR 67249, November 9, 2000).

Executive Order 12898 (Federal Actions To Address Environmental Justice in Minority Populations and Low-Income Populations, 59 FR 7629, Feb. 16, 1994) directs Federal agencies to identify and address “disproportionately high and adverse human health or environmental effects” of their actions on minority populations and low-income populations to the greatest extent practicable and permitted by law. EPA defines environmental justice (EJ) as “the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies.” EPA further defines the term fair treatment to mean that “no group of people should bear a disproportionate burden of environmental harms and risks, including those resulting from the negative environmental consequences of industrial, governmental, and commercial operations or programs and policies.”

The New Hampshire Department of Environmental Services did not evaluate environmental justice considerations as part of its SIP submittal; the CAA and applicable implementing regulations neither prohibit nor require such an evaluation. EPA did not perform an EJ analysis and did not consider EJ in this action. Due to the nature of the action being taken here, this action is expected to have a neutral to positive impact on the air quality of the affected area. Consideration of EJ is not required as part of this action, and there is no information in the record inconsistent with the stated goal of E.O. 12898 of achieving environmental justice for people of color, low-income populations, and Indigenous peoples.

The Congressional Review Act, 5 U.S.C. 801 *et seq.*, as added by the Small Business Regulatory Enforcement Fairness Act of 1996, generally provides that before a rule may take effect, the agency promulgating the rule must submit a rule report, which includes a copy of the rule, to each House of the Congress and to the Comptroller General of the United States. EPA will submit a report containing this action and other required information to the U.S. Senate, the U.S. House of Representatives, and the Comptroller General of the United States prior to publication of the rule in

the **Federal Register**. A major rule cannot take effect until 60 days after it is published in the **Federal Register**. This action is not a “major rule” as defined by 5 U.S.C. 804(2).

Under section 307(b)(1) of the Clean Air Act, petitions for judicial review of this action must be filed in the United States Court of Appeals for the appropriate circuit by November 6, 2023. Filing a petition for reconsideration by the Administrator of this final rule does not affect the finality of this action for the purposes of judicial review nor does it extend the time within which a petition for judicial review may be filed, and shall not postpone the effectiveness of such rule or action. This action may not be challenged later in proceedings to enforce its requirements. (See section 307(b)(2).)

List of Subjects in 40 CFR Part 52

Environmental protection, Air pollution control, Incorporation by reference, Nitrogen dioxide, Ozone, Reporting and recordkeeping requirements, Volatile organic compounds.

Dated: August 30, 2023.

David Cash,

Regional Administrator, EPA Region 1.

Part 52 of chapter I, title 40 of the Code of Federal Regulations is amended as follows:

PART 52—APPROVAL AND PROMULGATION OF IMPLEMENTATION PLANS

- 1. The authority citation for part 52 continues to read as follows:

Authority: 42 U.S.C. 7401 *et seq.*

Subpart EE—New Hampshire

- 2. In § 52.1520 (c), amend the table by adding an entry for “Env-A 100”, immediately preceding the entry for “Env-A 200”; revising the entry for “Env-A 1300”; and in § 52.1520 (e), amending the table to add entries for “Certifications for RACT for the 2008 and 2015 ozone standards” and for “Negative declarations included in New Hampshire’s State Implementation Plan for purposes of the 2008 and 2015 ozone standards” to the end of the table, to read as follows:

§ 52.1520 Identification of plan.

* * * * *

(c) * * *

¹ 62 FR 27968 (May 22, 1997).

EPA-APPROVED NEW HAMPSHIRE REGULATIONS

State citation	Title/subject	State effective date	EPA approval date ¹	Explanations
Env-A 100	Definition of “Emergency generator”.	8/15/2018	9/6/2023 [Insert Federal Register citation].	Revision to the term “Emergency generator” as used within the state’s air pollution control regulations.
Env-A 1300	NO _x RACT	8/15/2018 and 3/20/2023.		Regulation, effective 8/15/2018, containing emissions limits and other requirements for stationary sources of nitrogen oxides approved except for sections pertaining to coal-fired cyclone boilers at Env-A 1303.06(b) and (c). Revisions made to Env-A 1303.02 and 1303.04. effective 3/20/2023.

¹ In order to determine the EPA effective date for a specific provision listed in this table, consult the **Federal Register** notice cited in this column for the particular provision.

(e) * * *

NEW HAMPSHIRE NONREGULATORY

Name of nonregulatory SIP provision	Applicable geographic or nonattainment area	State submittal date/effective date	EPA approved date ³	Explanations
Certifications for RACT for the 2008 and 2015 ozone standards.	Statewide	9/6/2018	9/6/2023 [Insert Federal Register citation].	RACT certifications for stationary sources of VOC and NO _x approved for purposes of the 2008 and 2015 ozone standards except for NO _x RACT requirements pertaining to coal-fired cyclone boilers.
Negative declarations included in New Hampshire’s State Implementation Plan for purposes of the 2008 and 2015 ozone standards.	Statewide	9/6/2018	9/6/2023 [Insert Federal Register citation].	Negative declarations submitted for 26 CTG categories listed within Table 5–3 of the New Hampshire document “Certification of Reasonably Available Control Technology for the 2008 and 2015 8-hour Ozone National Ambient Air Quality Standards”, dated August 21, 2018.

³ In order to determine the EPA effective date for a specific provision listed in this table, consult the **Federal Register** notice cited in this column for the particular provision.

[FR Doc. 2023–19117 Filed 9–5–23; 8:45 am]

BILLING CODE 6560–50–P

Proposed Rules

Federal Register

Vol. 88, No. 171

Wednesday, September 6, 2023

This section of the FEDERAL REGISTER contains notices to the public of the proposed issuance of rules and regulations. The purpose of these notices is to give interested persons an opportunity to participate in the rule making prior to the adoption of the final rules.

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2023-1811; Project Identifier MCAI-2023-00146-E]

RIN 2120-AA64

Airworthiness Directives; GE Aviation Czech s.r.o. (Type Certificate Previously Held by WALTER Engines a.s., Walter a.s., and MOTORLET a.s.) Engines

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: The FAA proposes to supersede Airworthiness Directive (AD) 2023-01-07, which applies to all GE Aviation Czech s.r.o. (GEAC) (type certificate previously held by WALTER Engines a.s., Walter a.s., and MOTORLET a.s.) Model H75-100, H75-200, H80, H80-100, H80-200, H85-100, and H85-200 engines. AD 2023-01-07 requires revising the airworthiness limitations section (ALS) of the existing engine maintenance manual (EMM) and the operator's existing approved maintenance or inspection program, as applicable, to incorporate updated coefficients and recalculate the cycles accumulated on critical parts. Since the FAA issued AD 2023-01-07, the manufacturer revised the ALS of the EMM to introduce new and more restrictive airworthiness limitations and associated thresholds and intervals for life-limited parts, which prompted this proposed AD. This proposed AD would require revising the ALS of the existing EMM and the operator's existing approved engine maintenance or inspection program, as applicable, to incorporate new and more restrictive instructions and associated thresholds and intervals for life-limited parts, as specified in a European Union Aviation Safety Agency (EASA) AD, which is proposed for incorporation by reference

(IBR). The FAA is proposing this AD to address the unsafe condition on these products.

DATES: The FAA must receive comments on this NPRM by October 23, 2023.

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- *Federal eRulemaking Portal:* Go to [regulations.gov](https://www.regulations.gov). Follow the instructions for submitting comments.
- *Fax:* (202) 493-2251.
- *Mail:* U.S. Department of

Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

- *Hand Delivery:* Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

AD Docket: You may examine the AD docket at [regulations.gov](https://www.regulations.gov) under Docket No. FAA-2023-1811; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this NPRM, the mandatory continuing airworthiness information (MCAI), any comments received, and other information. The street address for Docket Operations is listed above.

Material Incorporated by Reference:

- For service information that is proposed for IBR in this NPRM, contact EASA, Konrad-Adenauer-Ufer 3, 50668 Cologne, Germany; phone: +49 221 8999 000; email: ADs@easa.europa.eu; website: easa.europa.eu. You may find this material on the EASA website at ad.easa.europa.eu. It is also available at [regulations.gov](https://www.regulations.gov) under Docket No. FAA-2023-1811.

- You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 1200 District Avenue, Burlington, MA 01803. For information on the availability of this material at the FAA, call (817) 222-5110.

FOR FURTHER INFORMATION CONTACT:

Barbara Caufield, Aviation Safety Engineer, FAA, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; phone: (781) 238-7146; email: barbara.caufield@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

The FAA invites you to send any written relevant data, views, or

arguments about this proposal. Send your comments to an address listed under **ADDRESSES**. Include "Docket No. FAA-2023-1811; Project Identifier MCAI-2023-00146-E" at the beginning of your comments. The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. The FAA will consider all comments received by the closing date and may amend the proposal because of those comments.

Except for Confidential Business Information (CBI) as described in the following paragraph, and other information as described in 14 CFR 11.35, the FAA will post all comments received, without change, to [regulations.gov](https://www.regulations.gov), including any personal information you provide. The agency will also post a report summarizing each substantive verbal contact received about this NPRM.

Confidential Business Information

CBI is commercial or financial information that is both customarily and actually treated as private by its owner. Under the Freedom of Information Act (FOIA) (5 U.S.C. 552), CBI is exempt from public disclosure. If your comments responsive to this NPRM contain commercial or financial information that is customarily treated as private, that you actually treat as private, and that is relevant or responsive to this NPRM, it is important that you clearly designate the submitted comments as CBI. Please mark each page of your submission containing CBI as "PROPIN." The FAA will treat such marked submissions as confidential under the FOIA, and they will not be placed in the public docket of this NPRM. Submissions containing CBI should be sent to Barbara Caufield, Aviation Safety Engineer, FAA, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590. Any commentary that the FAA receives which is not specifically designated as CBI will be placed in the public docket for this rulemaking.

Background

The FAA issued AD 2023-01-07, Amendment 39-22301 (88 FR 7355, February 3, 2023; corrected February 16, 2023 (88 FR 10013)) (AD 2023-01-07), for all GEAC Model H75-100, H75-200, H80, H80-100, H80-200, H85-100, and H85-200 engines. AD 2023-01-07 was prompted by an MCAI originated by

EASA, which is the Technical Agent for the Member States of the European Union. EASA issued EASA AD 2022–0008, dated January 19, 2022 (EASA AD 2022–0008), to address an unsafe condition identified as failure of the engine. EASA AD 2022–0008 stated that the airworthiness limitations for H series engine models have been identified as mandatory for continued airworthiness, and that failure to accomplish these instructions could result in an unsafe condition. EASA AD 2022–0008 also explained that the manufacturer published a revised ALS to introduce updated coefficients for the calculation of the cyclic life and safe life for the main shaft.

AD 2023–01–07 requires revising the ALS of the existing EMM and the operator's existing approved maintenance or inspection program, as applicable, to incorporate updated coefficients and recalculate the cycles accumulated on critical parts. The FAA issued AD 2023–01–07 to prevent failure of the engine.

Actions Since AD 2023–01–07 Was Issued

Since the FAA issued AD 2023–01–07, EASA superseded EASA AD 2022–0008 and issued EASA AD 2023–0021, dated January 23, 2023 (EASA AD 2023–0021) (also referred to after this as the MCAI). The MCAI states that the manufacturer revised the ALS to introduce new and more restrictive instructions and associated thresholds and intervals for life-limited parts. The MCAI also states that GEAC published an Alert Service Bulletin, ASB–H75–72–10–00–0062, ASB–H80–72–10–00–0107, ASB–H85–72–10–00–0051, ASB–M601F–72–10–00–0070, ASB–M601E–72–10–00–0120, ASB–M601D–72–10–00–0087 and ASB–M601Z–72–10–00–0069; Revision 1, dated January 20, 2023, published as a single document, which provides instructions to determine the accumulated life of certain propeller shafts.

You may examine the MCAI in the AD docket at [regulations.gov](https://www.regulations.gov) under Docket No. FAA–2023–1811.

Related Service Information Under 1 CFR Part 51

The FAA reviewed EASA AD 2023–0021, which specifies procedures for operators to revise the ALS of the existing EMM and the operator's existing approved engine maintenance or inspection program, as applicable, to incorporate new and more restrictive instructions and associated thresholds

and intervals for life-limited parts, as applicable to each engine model.

This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in **ADDRESSES**.

FAA's Determination

These products have been approved by the aviation authority of another country and are approved for operation in the United States. Pursuant to the FAA's bilateral agreement with this State of Design Authority, it has notified the FAA of the unsafe condition described in the MCAI referenced above. The FAA is issuing this NPRM after determining that the unsafe condition described previously is likely to exist or develop on other products of the same type design.

Proposed AD Requirements in This NPRM

This proposed AD would require accomplishing the actions specified in the MCAI described previously, except for any differences identified as exceptions in the regulatory text of this proposed AD and as discussed under "Differences Between this Proposed AD and the MCAI." The owner/operator (pilot) holding at least a private pilot certificate may revise the ALS of the existing EMM and must enter compliance with the applicable paragraph of this proposed AD into the engine maintenance records in accordance with 14 CFR 43.9(a) and 91.417(a)(2)(v). The pilot may perform this action because it only involves revising the pilot's manual. This action could be performed equally well by a pilot or a mechanic. This is an exception to the FAA's standard maintenance regulations.

Explanation of Required Compliance Information

In the FAA's ongoing efforts to improve the efficiency of the AD process, the FAA developed a process to use some civil aviation authority (CAA) ADs as the primary source of information for compliance with requirements for corresponding FAA ADs. The FAA has since coordinated with other manufacturers and CAAs to use this process. As a result, the FAA proposes to incorporate by reference EASA AD 2023–0021 in the FAA final rule. This proposed AD would, therefore, require compliance with EASA AD 2023–0021 in its entirety through that incorporation, except for any differences identified as exceptions in the regulatory text of this proposed

AD. Using common terms that are the same as the heading of a particular section in the EASA AD does not mean that operators need comply only with that section. For example, where the AD requirement refers to "all required actions within the compliance times," compliance with this AD requirement is not limited to the section titled "Required Action(s) and Compliance Time(s)" in EASA AD 2023–0021. Service information required by the EASA AD for compliance will be available at [regulations.gov](https://www.regulations.gov) by searching for and locating Docket No. FAA–2023–1811 after the FAA final rule is published.

Differences Between This Proposed AD and the MCAI

Where EASA AD 2023–0021 defines the AMP as the approved Aircraft Maintenance Programme containing the tasks on the basis of which the scheduled maintenance is conducted to ensure the continuing airworthiness of each operated engine, this proposed AD defines the AMP as the aircraft maintenance program containing the tasks on the basis of which the scheduled maintenance is conducted to ensure the continuing airworthiness of each operated airplane.

Where EASA AD 2023–0021 defines the ALS as the Airworthiness Limitations Section of the GEAC EMM No. 0983402 Revision 25, dated November 21, 2022, this proposed AD defines the ALS as the airworthiness limitations section of the GEAC EMM No. 0983402 Revision 26, dated February 1, 2023. The ALS in Revision 26 of the EMM is unchanged from Revision 25 of the EMM.

Where paragraph (3) of EASA AD 2023–0021 specifies revising the approved Aircraft Maintenance Programme within 12 months after the effective date of EASA AD 2023–0021, this proposed AD would require revising the ALS of the existing approved engine maintenance or inspection program, as applicable, within 90 days after the effective date of this AD.

This proposed AD would not require compliance with paragraphs (1), (2), (4), and (5) of EASA AD 2023–0021.

Costs of Compliance

The FAA estimates that this AD, if adopted as proposed, would affect 33 engines installed on airplanes of U.S. registry.

The FAA estimates the following costs to comply with this proposed AD:

ESTIMATED COSTS

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Revise the ALS	1 work-hour × \$85 per hour = \$85	\$0	\$85	\$2,805

Authority for This Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII, Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

The FAA determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that the proposed regulation:

(1) Is not a "significant regulatory action" under Executive Order 12866,

(2) Would not affect intrastate aviation in Alaska, and

(3) Would not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39—AIRWORTHINESS DIRECTIVES

■ 1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

■ 2. The FAA amends § 39.13 by:
 ■ a. Removing Airworthiness Directive 2023–01–07, Amendment 39–22301 (88 FR 7355, February 3, 2023; corrected February 16, 2023 (88 FR 10013)); and
 ■ b. Adding the following new airworthiness directive:

GE Aviation Czech s.r.o. (Type Certificate Previously held by WALTER Engines a.s., Walter a.s., and MOTORLET a.s.):
 Docket No. FAA–2023–1811; Project Identifier MCAI–2023–00146–E.

(a) Comments Due Date

The FAA must receive comments on this airworthiness directive (AD) by October 23, 2023.

(b) Affected ADs

This AD replaces AD 2023–01–07, Amendment 39–22301 (88 FR 7355, February 3, 2023; corrected February 16, 2023 (88 FR 10013)).

(c) Applicability

This AD applies to GE Aviation Czech s.r.o. (Type Certificate Previously held by WALTER Engines a.s., Walter a.s., and MOTORLET a.s.) Model H75–100, H75–200, H80, H80–100, H80–200, H85–100, and H85–200 engines.

(d) Subject

Joint Aircraft System Component (JASC) Code 7200, Engine (Turbine/Turboprop).

(e) Unsafe Condition

This AD was prompted by the manufacturer revising the airworthiness limitations section (ALS) of the existing engine maintenance manual (EMM) to introduce new and more restrictive airworthiness limitations and associated thresholds and intervals for life-limited parts. The FAA is issuing this AD to prevent failure of the engine. The unsafe condition, if not addressed, could result in uncontained release of a critical part, damage to the engine, and damage to the airplane.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Required Actions

(1) Except as specified in paragraph (h) of this AD: Perform all required actions within

the compliance times specified in, and in accordance with, European Union Aviation Safety Agency (EASA) AD 2023–0021, dated January 23, 2023 (EASA AD 2023–0021).

(2) The action required by paragraph (g)(1) of this AD may be performed by the owner/operator (pilot) holding at least a private pilot certificate and must be entered into the aircraft records showing compliance with this AD in accordance with 14 CFR 43.9(a) and 91.417(a)(2)(v). The record must be maintained as required by 14 CFR 91.417, 121.380, or 135.439.

(h) Exceptions to EASA AD 2023–0021

(1) Where EASA AD 2023–0021 defines the AMP as "the approved Aircraft Maintenance Programme containing the tasks on the basis of which the scheduled maintenance is conducted to ensure the continuing airworthiness of each operated engine," for this AD, replace that text with, "the aircraft maintenance program containing the tasks on the basis of which the scheduled maintenance is conducted to ensure the continuing airworthiness of each operated airplane."

(2) Where EASA AD 2023–0021 defines the ALS as "the Airworthiness Limitations Section of GEAC EMM No. 0983402 Revision 25, dated November 21, 2022," for this AD, replace that text with, "the airworthiness limitations section of GEAC EMM No. 0983402 Revision 26, dated February 1, 2023." The ALS in Revision 26 of the EMM is unchanged from Revision 25 of the EMM.

(3) Where EASA AD 2023–0021 refers to its effective date, this AD requires using the effective date of this AD.

(4) Where paragraph (3) of EASA AD 2023–0021 specifies revising "the approved AMP within 12 months after the effective date of EASA AD 2023–0021," replace that text with, "the ALS of the existing approved engine maintenance or inspection program, as applicable, within 90 days after the effective date of this AD."

(5) This AD does not require compliance with paragraphs (1), (2), (4), and (5) of EASA AD 2023–0021.

(6) This AD does not adopt the Remarks paragraph of EASA AD 2023–0021.

(i) Provisions for Alternative Actions and Intervals

After performing the actions required by paragraph (g) of this AD, no alternative actions and associated thresholds and intervals, including life limits, are allowed unless they are approved as specified in the provisions of the "Ref. Publications" section of EASA AD 2023–0021.

(j) Alternative Methods of Compliance (AMOCs):

(1) The Manager, International Validation Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the

procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the International Validation Branch, send it to the attention of the person identified in paragraph (k) of this AD and email to ANE-AD-AMOC@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(k) Additional Information

For more information about this AD, contact Barbara Caufield, Aviation Safety Engineer, FAA, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; phone: (781) 238-7146; email: barbara.caufield@faa.gov.

(l) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(i) European Union Aviation Safety Agency AD 2023-0021, dated January 23, 2023.

(ii) [Reserved]

(3) For EASA AD 2023-0021, contact EASA, Konrad-Adenauer-Ufer 3, 50668 Cologne, Germany; phone: +49 221 8999 000; email: ADs@easa.europa.eu; website: easa.europa.eu. You may find this EASA AD on the EASA website at ad.easa.europa.eu.

(4) You may view this service information at FAA, Airworthiness Products Section, Operational Safety Branch, 1200 District Avenue, Burlington, MA 01803. For information on the availability of this material at the FAA, call (817) 222-5110.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, email: fr.inspection@nara.gov, or go to: www.archives.gov/federal-register/cfr/ibr-locations.html.

Issued on August 25, 2023.

Victor Wicklund,

Deputy Director, Compliance & Airworthiness Division, Aircraft Certification Service.

[FR Doc. 2023-18930 Filed 9-5-23; 8:45 am]

BILLING CODE 4910-13-P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2023-1817; Project Identifier MCAI-2023-00664-T]

RIN 2120-AA64

Airworthiness Directives; Airbus Canada Limited Partnership (Type Certificate Previously Held by C Series Aircraft Limited Partnership (CSALP); Bombardier, Inc.) Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: The FAA proposes to adopt a new airworthiness directive (AD) for certain Airbus Canada Limited Partnership Model BD-500-1A10 and BD-500-1A11 airplanes. This proposed AD was prompted by a design review that identified the fixed emergency locator transmitter (ELT) lithium batteries would not be sufficiently cooled by the outside air in the event of a thermal runaway event. This proposed AD would require replacing the ELT with a new ELT with redesigned batteries, as specified in a Transport Canada AD, which is proposed for incorporation by reference (IBR). The FAA is proposing this AD to address the unsafe condition on these products.

DATES: The FAA must receive comments on this proposed AD by October 23, 2023.

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- **Federal eRulemaking Portal:** Go to regulations.gov. Follow the instructions for submitting comments.

- **Fax:** 202-493-2251.

- **Mail:** U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

- **Hand Delivery:** Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

AD Docket: You may examine the AD docket at regulations.gov under Docket No. FAA-2023-1817; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this NPRM, the mandatory continuing airworthiness information (MCAI), any comments received, and

other information. The street address for Docket Operations is listed above.

Material Incorporated by Reference:

- For material that is proposed for IBR in this NPRM, contact Transport Canada, Transport Canada National Aircraft Certification, 159 Cleopatra Drive, Nepean, Ontario K1A 0N5, Canada; telephone 888-663-3639; email TC.AirworthinessDirectives-Consignesdenavigabilite.TC@tc.gc.ca; website tc.canada.ca/en/aviation. It is also available at regulations.gov under Docket No. FAA-2023-1817.

- You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th Street, Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

FOR FURTHER INFORMATION CONTACT:

Steven Dzierzynski, Aviation Safety Engineer, FAA, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7300; email 9-avs-nyaco-cos@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

The FAA invites you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under **ADDRESSES**. Include "Docket No. FAA-2023-1817; Project Identifier MCAI-2023-00664-T" at the beginning of your comments. The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. The FAA will consider all comments received by the closing date and may amend this proposal because of those comments.

Except for Confidential Business Information (CBI) as described in the following paragraph, and other information as described in 14 CFR 11.35, the FAA will post all comments received, without change, to regulations.gov, including any personal information you provide. The agency will also post a report summarizing each substantive verbal contact received about this NPRM.

Confidential Business Information

CBI is commercial or financial information that is both customarily and actually treated as private by its owner. Under the Freedom of Information Act (FOIA) (5 U.S.C. 552), CBI is exempt from public disclosure. If your comments responsive to this NPRM contain commercial or financial information that is customarily treated as private, that you actually treat as

private, and that is relevant or responsive to this NPRM, it is important that you clearly designate the submitted comments as CBI. Please mark each page of your submission containing CBI as “PROPIN.” The FAA will treat such marked submissions as confidential under the FOIA, and they will not be placed in the public docket of this NPRM. Submissions containing CBI should be sent to Steven Dzierzynski, Aviation Safety Engineer, FAA, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516–228–7300; email 9-avs-nyaco-cos@faa.gov. Any commentary that the FAA receives which is not specifically designated as CBI will be placed in the public docket for this rulemaking.

Background

Transport Canada, which is the aviation authority for Canada, has issued Transport Canada AD CF–2023–31, dated May 8, 2023 (Transport Canada AD CF–2023–31) (also referred to as the MCAI), to correct an unsafe condition for certain Airbus Canada Limited Partnership Model BD–500–1A10 and BD–500–1A11 airplanes. The MCAI states a design review identified that the fixed ELT lithium batteries would not be sufficiently cooled by the outside air in the event of a thermal runaway event. As a result, a thermal runaway could lead to an uncontrolled fire of the fixed ELT, which may compromise the structural integrity of the aircraft structure in the area where the fixed ELT is installed.

The FAA is proposing this AD to address the unsafe condition on these products. You may examine the MCAI in the AD docket at [regulations.gov](https://www.regulations.gov) under Docket No. FAA–2023–1817.

Related Service Information Under 1 CFR Part 51

Transport Canada AD CF–2023–31 specifies procedures for replacing the fixed ELT with an ELT with improved batteries that do not rely on cooling from the outside. The replacement includes modifying two electrical harnesses and installing a new ELT support assembly, ELT, and aircraft identification module (AIM). This material is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in ADDRESSES section.

FAA’s Determination

This product has been approved by the aviation authority of another country and is approved for operation in the United States. Pursuant to the FAA’s bilateral agreement with this State of Design Authority, it has notified the FAA of the unsafe condition described in the MCAI referenced above. The FAA is issuing this NPRM after determining that the unsafe condition described previously is likely to exist or develop in other products of the same type design.

Proposed AD Requirements in This NPRM

This proposed AD would require accomplishing the actions specified in

Transport Canada AD CF–2023–31 described previously, except for any differences identified as exceptions in the regulatory text of this proposed AD.

Explanation of Required Compliance Information

In the FAA’s ongoing efforts to improve the efficiency of the AD process, the FAA developed a process to use some civil aviation authority (CAA) ADs as the primary source of information for compliance with requirements for corresponding FAA ADs. The FAA has been coordinating this process with manufacturers and CAAs. As a result, the FAA proposes to incorporate Transport Canada AD CF–2023–31 by reference in the FAA final rule. This proposed AD would, therefore, require compliance with Transport Canada AD CF–2023–31 in its entirety through that incorporation, except for any differences identified as exceptions in the regulatory text of this proposed AD. Service information required by Transport Canada AD CF–2023–31 for compliance will be available at [regulations.gov](https://www.regulations.gov) under Docket No. FAA–2023–1817 after the FAA final rule is published.

Costs of Compliance

The FAA estimates that this AD, if adopted as proposed, would affect 71 airplanes of U.S. registry. The FAA estimates the following costs to comply with this proposed AD:

ESTIMATED COSTS FOR REQUIRED ACTIONS

Labor cost	Parts cost	Cost per product	Cost on U.S. operators
19 work-hours × \$85 per hour = \$1,615	\$12,804	\$14,419	\$1,023,749

The FAA has included all known costs in its cost estimate. According to the manufacturer, however, some or all of the costs of this proposed AD may be covered under warranty, thereby reducing the cost impact on affected operators.

Authority for This Rulemaking

Title 49 of the United States Code specifies the FAA’s authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency’s authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

The FAA determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

(1) Is not a “significant regulatory action” under Executive Order 12866,

(2) Would not affect intrastate aviation in Alaska, and

(3) Would not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39—AIRWORTHINESS DIRECTIVES

■ 1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

■ 2. The FAA amends § 39.13 by adding the following new airworthiness directive:

Airbus Canada Limited Partnership (Type Certificate Previously Held by C Series Aircraft Limited Partnership (CSALP); Bombardier, Inc.): Docket No. FAA–2023–1817; Project Identifier MCAI–2023–00664–T.

(a) Comments Due Date

The FAA must receive comments on this airworthiness directive (AD) by October 23, 2023.

(b) Affected ADs

None.

(c) Applicability

This AD applies to Airbus Canada Limited Partnership (Type Certificate previously held by C Series Aircraft Limited Partnership (CSALP); Bombardier, Inc.) Model BD–500–1A10 and BD–500–1A11 airplanes, certificated in any category, as identified in Transport Canada AD CF–2023–31, dated May 8, 2023 (Transport Canada AD CF–2023–31).

(d) Subject

Air Transport Association (ATA) of America Code: 25, Equipment/furnishings.

(e) Unsafe Condition

This AD was prompted by a design review that identified the fixed emergency locator transmitter (ELT) lithium batteries would not be sufficiently cooled by the outside air in the event of a thermal runaway event. The FAA is issuing this AD to address a thermal runaway that could lead to an uncontrolled fire of the fixed ELT. The unsafe condition, if not addressed, may compromise the structural integrity of the aircraft structure in the area where the fixed ELT is installed.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Requirements

Except as specified in paragraph (h) of this AD: Comply with all required actions and compliance times specified in, and in accordance with, Transport Canada AD CF–2023–31.

(h) Exceptions to Transport Canada AD CF–2023–31

Where Transport Canada AD CF–2023–31 refers to its effective date, this AD requires using the effective date of this AD.

(i) Additional AD Provisions

The following provisions also apply to this AD:

(1) *Alternative Methods of Compliance (AMOCs):* The Manager, International Validation Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or responsible Flight Standards Office, as appropriate. If sending information directly to the International Validation Branch, send it to the attention of the person identified in paragraph (j) of this AD. Information may be emailed to: 9-AVS-AIR-730-AMOC@faa.gov. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the responsible Flight Standards Office.

(2) *Contacting the Manufacturer:* For any requirement in this AD to obtain instructions from a manufacturer, the instructions must be accomplished using a method approved by the Manager, International Validation Branch, FAA; or Transport Canada; or Airbus Canada Limited Partnership's Transport Canada Design Approval Organization (DAO). If approved by the DAO, the approval must include the DAO-authorized signature.

(3) *Required for Compliance (RC):* Except as required by paragraph (i)(2) of this AD, if any service information contains procedures or tests that are identified as RC, those procedures and tests must be done to comply with this AD; any procedures or tests that are not identified as RC are recommended. Those procedures and tests that are not identified as RC may be deviated from using accepted methods in accordance with the operator's maintenance or inspection program without obtaining approval of an AMOC, provided the procedures and tests identified as RC can be done and the airplane can be put back in an airworthy condition. Any substitutions or changes to procedures or tests identified as RC require approval of an AMOC.

(j) Additional Information

For more information about this AD, contact: Steven Dzierzynski, Aviation Safety Engineer, FAA, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516–228–7300; email 9-avs-nyaco-cos@faa.gov.

(k) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference

(IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless this AD specifies otherwise.

(i) Transport Canada AD CF–2023–31, dated May 8, 2023.

(ii) [Reserved]

(3) For Transport Canada AD CF–2023–31, contact Transport Canada, Transport Canada National Aircraft Certification, 159 Cleopatra Drive, Nepean, Ontario K1A 0N5, Canada; telephone 888–663–3639; email TC.AirworthinessDirectives-Consignesdenavigabilite.TC@tc.gc.ca; website tc.canada.ca/en/aviation.

(4) You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th Street, Des Moines, WA. For information on the availability of this material at the FAA, call 206–231–3195.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, email fr.inspection@nara.gov, or go to: www.archives.gov/federal-register/cfr/ibr-locations.html.

Issued on August 30, 2023.

Victor Wicklund,

Deputy Director, Compliance & Airworthiness Division, Aircraft Certification Service.

[FR Doc. 2023–19074 Filed 9–5–23; 8:45 am]

BILLING CODE 4910–13–P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA–2023–1818; Project Identifier MCAI–2023–00582–T]

RIN 2120–AA64

Airworthiness Directives; Airbus Canada Limited Partnership (Type Certificate Previously Held by C Series Aircraft Limited Partnership (CSALP); Bombardier, Inc.) Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: The FAA proposes to adopt a new airworthiness directive (AD) for certain Airbus Canada Limited Partnership Model BD–500–1A10 and BD–500–1A11 airplanes. This proposed AD was prompted by a report of a fouling condition (interference) between the gimbal bushing and the airplane horizontal stabilizer trim actuator (HSTA) structural fitting, which prevented engagement of the secondary load path. This proposed AD would

require replacing the upper gimbal bushing flanges, as specified in a Transport Canada AD, which is proposed for incorporation by reference (IBR). The FAA is proposing this AD to address the unsafe condition on these products.

DATES: The FAA must receive comments on this proposed AD by October 23, 2023.

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- *Federal eRulemaking Portal:* Go to [regulations.gov](https://www.regulations.gov). Follow the instructions for submitting comments.

- *Fax:* 202-493-2251.

- *Mail:* U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

- *Hand Delivery:* Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

AD Docket: You may examine the AD docket at [regulations.gov](https://www.regulations.gov) under Docket No. FAA-2023-1818; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this NPRM, the mandatory continuing airworthiness information (MCAI), any comments received, and other information. The street address for Docket Operations is listed above.

Material Incorporated by Reference:

- For material that is proposed for IBR in this NPRM, contact Transport Canada, Transport Canada National Aircraft Certification, 159 Cleopatra Drive, Nepean, Ontario K1A 0N5, Canada; telephone 888-663-3639; email: TC.AirworthinessDirectives-Consignesdenavigabilite.TC@tc.gc.ca; website: tc.canada.ca/en/aviation. It is also available at [regulations.gov](https://www.regulations.gov) under Docket No. FAA-2023-1818.

- You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th Street, Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

FOR FURTHER INFORMATION CONTACT: Gabriel Kim, Aviation Safety Engineer, FAA, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7300; email 9-avs-nyaco-cos@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

The FAA invites you to send any written relevant data, views, or

arguments about this proposal. Send your comments to an address listed under **ADDRESSES**. Include “Docket No. FAA-2023-1818; Project Identifier MCAI-2023-00582-T” at the beginning of your comments. The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. The FAA will consider all comments received by the closing date and may amend this proposal because of those comments.

Except for Confidential Business Information (CBI) as described in the following paragraph, and other information as described in 14 CFR 11.35, the FAA will post all comments received, without change, to [regulations.gov](https://www.regulations.gov), including any personal information you provide. The agency will also post a report summarizing each substantive verbal contact received about this NPRM.

Confidential Business Information

CBI is commercial or financial information that is both customarily and actually treated as private by its owner. Under the Freedom of Information Act (FOIA) (5 U.S.C. 552), CBI is exempt from public disclosure. If your comments responsive to this NPRM contain commercial or financial information that is customarily treated as private, that you actually treat as private, and that is relevant or responsive to this NPRM, it is important that you clearly designate the submitted comments as CBI. Please mark each page of your submission containing CBI as “PROPIN.” The FAA will treat such marked submissions as confidential under the FOIA, and they will not be placed in the public docket of this NPRM. Submissions containing CBI should be sent to Gabriel Kim, Aviation Safety Engineer, FAA, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7300; email 9-avs-nyaco-cos@faa.gov. Any commentary that the FAA receives which is not specifically designated as CBI will be placed in the public docket for this rulemaking.

Background

Transport Canada, which is the aviation authority for Canada, has issued Transport Canada AD CF-2023-23, dated April 5, 2023 (Transport Canada AD CF-2023-23) (also referred to as the MCAI), to correct an unsafe condition for certain Airbus Canada Limited Partnership Model BD-500-1A10 and BD-500-1A11 airplanes. The MCAI states that interference was found between the gimbal bushing and the airplane HSTA structural fitting, which

prevented engagement of the secondary load path. On multiple other BD-500-1A10 and BD-500-1A11 airplanes, similar interference caused visible damage, but the secondary load path was successfully engaged. Inability to engage the HSTA secondary load path, following a failure of the primary load path, may result in a loss of pitch control of the airplane.

The FAA is proposing this AD to address the unsafe condition on these products. You may examine the MCAI in the AD docket at [regulations.gov](https://www.regulations.gov) under Docket No. FAA-2023-1818.

Related Service Information Under 14 CFR Part 51

Transport Canada AD CF-2023-23 specifies procedures for replacing the upper gimbal bushing flanges. This material is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in **ADDRESSES** section.

FAA’s Determination

This product has been approved by the aviation authority of another country and is approved for operation in the United States. Pursuant to the FAA’s bilateral agreement with this State of Design Authority, it has notified the FAA of the unsafe condition described in the MCAI referenced above. The FAA is issuing this NPRM after determining that the unsafe condition described previously is likely to exist or develop in other products of the same type design.

Proposed AD Requirements in This NPRM

This proposed AD would require accomplishing the actions specified in Transport Canada AD CF-2023-23 described previously, except for any differences identified as exceptions in the regulatory text of this proposed AD.

Explanation of Required Compliance Information

In the FAA’s ongoing efforts to improve the efficiency of the AD process, the FAA developed a process to use some civil aviation authority (CAA) ADs as the primary source of information for compliance with requirements for corresponding FAA ADs. The FAA has been coordinating this process with manufacturers and CAAs. As a result, the FAA proposes to incorporate Transport Canada AD CF-2023-23 by reference in the FAA final rule. This proposed AD would, therefore, require compliance with Transport Canada AD CF-2023-23 in its entirety through that incorporation,

except for any differences identified as exceptions in the regulatory text of this proposed AD. Service information required by Transport Canada AD CF–2023–23 for compliance will be available at [regulations.gov](https://www.regulations.gov) under

Docket No. FAA–2023–1818 after the FAA final rule is published.

Costs of Compliance

The FAA estimates that this AD, if adopted as proposed, would affect 4

airplanes of U.S. registry. The FAA estimates the following costs to comply with this proposed AD:

ESTIMATED COSTS FOR REQUIRED ACTIONS

Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Up to 24 work-hours × \$85 per hour = \$2,040	\$5,883	Up to \$7,923	Up to \$31,692.

The FAA has included all known costs in its cost estimate. According to the manufacturer, however, some or all of the costs of this proposed AD may be covered under warranty, thereby reducing the cost impact on affected operators.

Authority for This Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

The FAA determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

- (1) Is not a "significant regulatory action" under Executive Order 12866,
- (2) Would not affect intrastate aviation in Alaska, and
- (3) Would not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39—AIRWORTHINESS DIRECTIVES

- 1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

- 2. The FAA amends § 39.13 by adding the following new airworthiness directive:

Airbus Canada Limited Partnership (Type Certificate Previously Held by C Series Aircraft Limited Partnership (CSALP); Bombardier, Inc.): Docket No. FAA–2023–1818; Project Identifier MCAL–2023–00582–T.

(a) Comments Due Date

The FAA must receive comments on this airworthiness directive (AD) by October 23, 2023.

(b) Affected ADs

None.

(c) Applicability

This AD applies to Airbus Canada Limited Partnership (Type Certificate previously held by C Series Aircraft Limited Partnership (CSALP); Bombardier, Inc.) Model BD–500–1A10 and BD–500–1A11 airplanes, certificated in any category, as identified in Transport Canada AD CF–2023–23, dated April 5, 2023 (Transport Canada AD CF–2023–23).

(d) Subject

Air Transport Association (ATA) of America Code: 27, Flight Controls.

(e) Unsafe Condition

This AD was prompted by a report of interference between the gimbal bushing and the airplane horizontal stabilizer trim actuator (HSTA) structural fitting. The FAA is issuing this AD to ensure no interference occurs between the bushing and HSTA. The

unsafe condition, if not addressed, could result in the inability of the HSTA secondary load path to engage, following a failure of the primary load path, which may result in a loss of pitch control of the airplane.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Requirements

Except as specified in paragraph (h) of this AD: Comply with all required actions and compliance times specified in, and in accordance with, Transport Canada AD CF–2023–23.

(h) Exceptions to Transport Canada AD CF–2023–23

(1) Where Transport Canada AD CF–2023–23 refers to its effective date, this AD requires using the effective date of this AD.

(2) Where Transport Canada AD CF–2023–23 refers to hours air time, this AD requires using flight hours.

(i) Additional AD Provisions

The following provisions also apply to this AD:

(1) *Alternative Methods of Compliance (AMOCs):* The Manager, International Validation Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or responsible Flight Standards Office, as appropriate. If sending information directly to the International Validation Branch, send it to the attention of the person identified in paragraph (j) of this AD. Information may be emailed to: 9-AVS-AIR-730-AMOC@faa.gov. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the responsible Flight Standards Office.

(2) *Contacting the Manufacturer:* For any requirement in this AD to obtain instructions from a manufacturer, the instructions must be accomplished using a method approved by the Manager, International Validation Branch, FAA; or Transport Canada; or Airbus Canada Limited Partnership's Transport Canada Design Approval Organization (DAO). If approved by the DAO, the approval must include the DAO-authorized signature.

(j) Additional Information

For more information about this AD, contact Gabriel Kim, Aviation Safety Engineer, FAA, 1600 Stewart Avenue, Suite

410, Westbury, NY 11590; telephone 516-228-7300; email 9-avs-nyaco-cos@faa.gov.

(k) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless this AD specifies otherwise.

(i) Transport Canada AD CF-2023-23, dated April 5, 2023.

(ii) [Reserved]

(3) For Transport Canada AD CF-2023-23, contact Transport Canada, Transport Canada National Aircraft Certification, 159 Cleopatra Drive, Nepean, Ontario K1A 0N5, Canada; telephone 888-663-3639; email: TC.AirworthinessDirectives-Consignesdenavigabilite.TC@tc.gc.ca; website: tc.canada.ca/en/aviation.

(4) You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th Street, Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, email fr.inspection@nara.gov, or go to: www.archives.gov/federal-register/cfr/ibr-locations.html.

Issued on August 30, 2023.

Victor Wicklund,

Deputy Director, Compliance & Airworthiness Division, Aircraft Certification Service.

[FR Doc. 2023-19076 Filed 9-5-23; 8:45 am]

BILLING CODE 4910-13-P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2023-0017; Project Identifier AD-2022-01418-T]

RIN 2120-AA64

Airworthiness Directives; The Boeing Company Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Supplemental notice of proposed rulemaking (SNPRM).

SUMMARY: The FAA is revising a notice of proposed rulemaking (NPRM) that applied to all The Boeing Company Model 757 airplanes. This action revises the NPRM by adding inspections for airplanes modified to a cargo configuration. The FAA is proposing this airworthiness directive (AD) to address the unsafe condition on these products. Since these actions would

impose an additional burden over those in the NPRM, the FAA is requesting comments on this SNPRM.

DATES: The FAA must receive comments on this SNPRM by October 23, 2023.

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- **Federal eRulemaking Portal:** Go to [regulations.gov](https://www.regulations.gov). Follow the instructions for submitting comments.
- **Fax:** 202-493-2251.
- **Mail:** U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.
- **Hand Delivery:** Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

AD Docket: You may examine the AD docket at [regulations.gov](https://www.regulations.gov) under Docket No. FAA-2023-0017; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains the NPRM, this SNPRM, any comments received, and other information. The street address for Docket Operations is listed above.

Material Incorporated by Reference:

- For service information identified in this SNPRM, contact Boeing Commercial Airplanes, Attention: Contractual & Data Services (C&DS), 2600 Westminister Blvd., MC 110-SK57, Seal Beach, CA 90740-5600; telephone 562-797-1717; website myboeingfleet.com.

• You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195. It is also available at [regulations.gov](https://www.regulations.gov) by searching for and locating Docket No. FAA-2023-0017.

FOR FURTHER INFORMATION CONTACT:

Wayne Ha, Aviation Safety Engineer, FAA, 3960 Paramount Boulevard, Lakewood, CA 90712; phone: 562-627-5238; email: wayne.ha@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

The FAA invites you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under **ADDRESSES**. Include “Docket No. FAA-2023-0017; Project Identifier AD-2022-01418-T” at the beginning of your comments. The most helpful comments reference a specific portion of the proposal, explain the reason for any

recommended change, and include supporting data. The FAA will consider all comments received by the closing date and may again revise this proposal because of those comments.

Except for Confidential Business Information (CBI) as described in the following paragraph, and other information as described in 14 CFR 11.35, the FAA will post all comments received, without change, to [regulations.gov](https://www.regulations.gov), including any personal information you provide. The agency will also post a report summarizing each substantive verbal contact received about this proposed AD.

Confidential Business Information

CBI is commercial or financial information that is both customarily and actually treated as private by its owner. Under the Freedom of Information Act (FOIA) (5 U.S.C. 552), CBI is exempt from public disclosure. If your comments responsive to this SNPRM contain commercial or financial information that is customarily treated as private, that you actually treat as private, and that is relevant or responsive to this SNPRM, it is important that you clearly designate the submitted comments as CBI. Please mark each page of your submission containing CBI as “PROPIN.” The FAA will treat such marked submissions as confidential under the FOIA, and they will not be placed in the public docket of this SNPRM. Submissions containing CBI should be sent to Wayne Ha, Aviation Safety Engineer, FAA, 3960 Paramount Boulevard, Lakewood, CA 90712; phone: 562-627-5238; email: wayne.ha@faa.gov. Any commentary that the FAA receives that is not specifically designated as CBI will be placed in the public docket for this rulemaking.

Background

The FAA issued an NPRM to amend 14 CFR part 39 by adding an AD that would apply to all The Boeing Company Model 757 airplanes. The NPRM published in the **Federal Register** on January 26, 2023 (88 FR 4920). The NPRM was prompted by the potential for cracks to start in hidden areas underneath the scuff plates in the fuselage skin and bear strap of certain doors. In the NPRM, the FAA stated that certain maintenance inspections do not include a step to remove the scuff plates, which contributes to the inability to find cracks before they become critical. Cracks underneath the scuff plates in the fuselage skin and bear strap, if not addressed, could adversely affect the structural integrity of the airplane.

In the NPRM, the FAA proposed to require a general visual inspection or a maintenance records check for repairs in the areas around the fuselage skin door cutout lower corners of certain doors. The FAA also proposed applicable on-condition actions including repetitive low frequency and high frequency eddy current inspections for cracks in the skin or bear strap in the unrepaired areas, and crack repair.

Actions Since the NPRM Was Issued

Based on the comments the FAA received on the NPRM, the FAA is proposing additional inspections for Model 757–200 series airplanes that have been modified from a passenger configuration to a cargo configuration under supplemental type certificate (STC) ST04242AT, ST03562AT, or ST03952AT. As proposed in the NPRM, for Model 757–200 series airplanes with STC ST04242AT, ST03562AT, or ST03952AT, only the No. 1, No. 2, and No. 4 passenger entry doors, and the No. 1, No. 2, and No. 3 cargo doors, would have to be inspected. With this SNPRM, the FAA is proposing that for those airplanes, the crew entry door and main deck cargo door, as applicable, would also have to be inspected. This change is more fully discussed under the Comments section.

Comments

The FAA received comments from the Air Line Pilots Association, International, Boeing, and United Airlines, who supported the NPRM without change.

The FAA also received comments from Aviation Partners Boeing, VT Mobile Aerospace Engineering (VT MAE), and Federal Express (FedEx). The following presents the comments received on the NPRM and the FAA's response to each comment.

Effect of Winglets on Accomplishment of the Proposed Actions

Aviation Partners Boeing stated that the installation of blended or scimitar blended winglets per STC ST01518SE does not affect compliance with the actions in the proposed AD.

The FAA agrees with the commenter. The FAA has redesignated paragraph (c) of the proposed AD (of the NPRM) as paragraph (c)(1) of this proposed AD (of the SNPRM) and added paragraph (c)(2) to this proposed AD to state that installation of STC ST01518SE does not affect the ability to accomplish the actions required by this AD. Therefore, for airplanes on which STC ST01518SE is installed, a “change in product” alternative method of compliance (AMOC) approval request is not

necessary to comply with the requirements of 14 CFR 39.17.

Request To Change Required Inspections and Compliance Time for Airplanes Modified per VT MAE STC ST04242AT

VT MAE requested the FAA change the proposed inspections for airplanes modified under STC ST04242AT from a passenger configuration to a 15-pallet cargo configuration. VT MAE stated that under STC ST04242AT, the No. 1 left hand side (LHS), No. 1 right hand side (RHS), No. 4 LHS, and No. 4 RHS passenger entry doors have been plugged (re-skinned). Thus, the commenter requested the FAA not require these airplanes to be subject to the inspection of the No. 1 LHS, No. 1 RHS, No. 4 LHS and No. 4 RHS passenger entry doors specified in Boeing Alert Requirements Bulletin 757–53A0119 RB, dated October 12, 2022. In addition, the commenter stated that under STC ST04242AT, the crew entry door and the main deck cargo door surround cutout structure is similar to that of Boeing Model 757–200 PF airplanes identified as Group 4 in Boeing Alert Requirements Bulletin 757–53A0119 RB, dated October 12, 2022. As a result, VT MAE requested that these airplanes be required to do the inspection of the crew entry door and main deck cargo door (Table 4 and Table 5 of Boeing Alert Requirements Bulletin 757–53A0119 RB, dated October 12, 2022), that is specified for Group 4 airplanes.

The FAA agrees that Model 757–200 series airplanes modified under VT MAE STC ST04242AT should be subject to the same inspections as those required for Model 757–200 PF series airplanes (Group 4 in the service information), due to the similar design. The FAA has added paragraph (g)(2) of this proposed AD to require these additional inspections. The FAA disagrees with the request to omit the inspection of the passenger doors because the commenter did not submit sufficient data to substantiate an acceptable level of safety.

VT MAE also requested the FAA change the proposed compliance time to start after the airplane is converted from passenger to cargo configuration for the inspection at the door cutout lower corners of the crew entry door and the door cutout lower corners of main deck cargo door. The commenter stated that the cutout structures are newly installed during the freighter conversion.

The FAA disagrees with the request to revise the compliance time because the commenter did not submit sufficient data to substantiate an acceptable level

of safety. However, the FAA will consider requests for approval of AMOCs and compliance times if sufficient data is submitted to substantiate the changes would provide an acceptable level of safety.

Request To Add Inspections and Change Compliance Time for Airplanes Modified per VT MAE STC ST03562AT or ST03952AT

FedEx and VT MAE requested the FAA add inspections for airplanes modified from a passenger configuration to a cargo configuration. VT MAE stated that under STCs ST03562AT and ST03952AT, the main deck cargo door surround cutout structure is similar in design to Boeing Model 757–200 airplanes in a special freighter configuration under STC ST00916WI–D (identified as Group 6 in Boeing Alert Requirements Bulletin 757–53A0119 RB, dated October 12, 2022). Thus, VT MAE requested that airplanes modified under STC ST03562AT or ST03952AT be inspected as specified in Boeing Alert Requirements Bulletin 757–53A0119 RB, dated October 12, 2022, including the inspection at the door cutout lower corners of the main deck cargo door specified for Group 6 in Table 5. FedEx made the same request regarding airplanes modified under STC ST03562AT.

The FAA agrees that Model 757–200 airplanes modified under VT MAE STC ST03562AT or ST03952AT should be subject to the same inspections as those required for Model 757–200 airplanes modified under STC ST00916WI–D (Group 6 in the service information), due to the similar design. The FAA has added paragraph (g)(3) of this proposed AD to require these additional inspections.

VT MAE and FedEx also requested the FAA change the proposed compliance time to start after the airplane is converted from passenger to cargo configuration for the inspection at the door cutout lower corners of main deck cargo door. The commenters stated that the cutout structure surrounding the main deck cargo doors are added during passenger-to-cargo conversion, rather than when the airplanes are manufactured.

The FAA disagrees with the request to revise the compliance time because the commenters did not submit sufficient data to substantiate an acceptable level of safety. However, the FAA will consider requests for approval of alternative compliance times as an AMOC if sufficient data is submitted to substantiate the change would provide an acceptable level of safety.

Request To Clarify Exceptions Paragraph

FedEx requested the FAA clarify paragraph (h)(2) of the proposed AD and provided suggested language.

The FAA determined that the language provided by the commenter is identical to the language in paragraph (h)(2) of the proposed AD. However, the FAA has revised the language in paragraph (h)(2) of this proposed AD to clarify which conditions the exception applies to.

FAA’s Determination

The FAA is issuing this SNPRM after determining the unsafe condition described previously is likely to exist or develop in other products of the same type design. Certain changes described above expand the scope of the NPRM. As a result, it is necessary to reopen the comment period to provide additional

opportunity for the public to comment on this SNPRM.

Related Service Information Under 1 CFR Part 51

The FAA reviewed Boeing Alert Requirements Bulletin 757–53A0119 RB, dated October 12, 2022. This service information specifies procedures for either a general visual inspection or a maintenance records check for repairs in the areas around the fuselage skin door cutout lower corners of the No. 1, No. 2, and No. 4 passenger entry doors; crew entry door; No. 1, No. 2, and No. 3 cargo doors; and main deck cargo door; and applicable on-condition actions, including repetitive low frequency and high frequency eddy current inspections for cracks in the skin or bear strap in the unrepaired areas, and crack repair. This service information is reasonably available because the interested parties have

access to it through their normal course of business or by the means identified in **ADDRESSES**.

Proposed AD Requirements in This SNPRM

This proposed AD would require accomplishing the actions specified in the service information already described, except for any differences identified as exceptions in the regulatory text of this proposed AD. For information on the procedures and compliance times, see this service information at *regulations.gov* by searching for and locating Docket No. FAA–2023–0017.

Costs of Compliance

The FAA estimates that this AD, if adopted as proposed, would affect 482 airplanes of U.S. registry. The FAA estimates the following costs to comply with this proposed AD:

ESTIMATED COSTS

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
General visual inspection for repairs	1 work-hour × \$85 per hour = \$85	\$0	\$85	\$40,970

The FAA estimates the following costs to do any necessary on-condition actions that would be required based on

the results of the proposed inspection. The agency has no way of determining

the number of airplanes that might need these on-condition actions:

ON-CONDITION COSTS

Action	Labor cost	Parts cost	Cost per product
Inspections for cracks	Up to 27 work-hours × \$85 per hour = Up to \$2,295 per inspection cycle.	\$0	Up to \$2,295 per inspection cycle.

The extent of cracking found during the on-condition inspection could vary significantly from airplane to airplane. The FAA has no way of determining the extent of cracking that may be found on each airplane, the cost to repair the cracking on each airplane, or the number of airplanes that may require repair.

Authority for This Rulemaking

Title 49 of the United States Code specifies the FAA’s authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs describes in more detail the scope of the Agency’s authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA

with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

The FAA determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Would not affect intrastate aviation in Alaska, and
- (3) Would not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39—AIRWORTHINESS DIRECTIVES

■ 1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

■ 2. The FAA amends § 39.13 by adding the following new airworthiness directive:

The Boeing Company: Docket No. FAA–2023–0017; Project Identifier AD–2022–01418–T.

(a) Comments Due Date

The FAA must receive comments on this airworthiness directive (AD) by October 23, 2023.

(b) Affected ADs

None.

(c) Applicability

(1) This AD applies to all The Boeing Company Model 757–200, –200PF, –200CB, and –300 series airplanes, certificated in any category.

(2) Installation of Supplemental Type Certificate (STC) ST01518SE does not affect the ability to accomplish the actions required by this AD. Therefore, for airplanes on which STC ST01518SE is installed, a “change in product” alternative method of compliance (AMOC) approval request is not necessary to comply with the requirements of 14 CFR 39.17.

(d) Subject

Air Transport Association (ATA) of America Code 53, Fuselage.

(e) Unsafe Condition

This AD was prompted by the potential for cracks to start in hidden areas underneath the scuff plates in the fuselage skin and bear strap of certain doors. The FAA is issuing this AD to address cracks caused by higher fatigue stresses at the fuselage skin door cutout lower corners. This unsafe condition, if not addressed, could adversely affect the structural integrity of the airplane.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Required Actions

(1) For all airplanes: Except as specified by paragraph (h) of this AD, at the applicable times specified in the “Compliance” paragraph of Boeing Alert Requirements Bulletin 757–53A0119 RB, dated October 12, 2022, do all applicable actions identified in, and in accordance with, the Accomplishment Instructions of Boeing Alert Requirements Bulletin 757–53A0119 RB, dated October 12, 2022.

(2) For Model 757–200 series airplanes that have been modified from a passenger to cargo configuration under VT Mobile Aerospace Engineering (VT MAE) STC ST04242AT: Except as specified by paragraph (h) of this AD, at the applicable times specified in Table

4 and Table 5 of the “Compliance” paragraph of Boeing Alert Requirements Bulletin 757–53A0119 RB, dated October 12, 2022, do all applicable actions for Group 4 identified in, and in accordance with, Table 4 and Table 5 of the Accomplishment Instructions of Boeing Alert Requirements Bulletin 757–53A0119 RB, dated October 12, 2022.

(3) For Model 757–200 series airplanes that have been modified from a passenger to cargo configuration under VT MAE STC ST03562AT or ST03952AT: Except as specified by paragraph (h) of this AD, at the applicable times specified in Table 5 of the “Compliance” paragraph of Boeing Alert Requirements Bulletin 757–53A0119 RB, dated October 12, 2022, do all applicable actions for Group 6 identified in, and in accordance with, Table 5 of the Accomplishment Instructions of Boeing Alert Requirements Bulletin 757–53A0119 RB, dated October 12, 2022.

Note 1 to paragraph (g): Guidance for accomplishing the actions required by this AD can be found in Boeing Alert Service Bulletin 757–53A0119, dated October 12, 2022, which is referred to in Boeing Alert Requirements Bulletin 757–53A0119 RB, dated October 12, 2022.

(h) Exceptions to Service Information Specifications

(1) Where the Compliance Time columns of the tables in the “Compliance” paragraph of Boeing Alert Requirements Bulletin 757–53A0119 RB, dated October 12, 2022, use the phrase “the original issue date of Requirements Bulletin 757–53A0119 RB,” this AD requires using “the effective date of this AD.”

(2) Where Boeing Alert Requirements Bulletin 757–53A0119RB, dated October 12, 2022, specifies performing a general visual inspection (GVI) or a maintenance records check for any existing repair, if only a maintenance records check is accomplished with no GVI, then any initial high frequency eddy current (HFEC) or low frequency eddy current (LFEC) inspection with a compliance time of before further flight must be done prior to the accumulation of 30,000 total flight cycles, or within 3,000 flight cycles after the effective date of this AD, whichever occurs later.

(3) Where Boeing Alert Requirements Bulletin 757–53A0119 RB, dated October 12, 2022, specifies contacting Boeing for repair instructions or for alternative inspections: This AD requires doing the repair, or doing the alternative inspections and applicable on-condition actions, before further flight using a method approved in accordance with the procedures specified in paragraph (i) of this AD.

(i) AMOCs

(1) The Manager, AIR–520, Continued Operational Safety Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or responsible Flight Standards Office, as appropriate. If sending information directly to the manager of the Continued Operational Safety Branch, send it to the attention of the

person identified in paragraph (j) of this AD. Information may be emailed to: 9-ANM-Seattle-ACO-AMOC-Requests@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the responsible Flight Standards Office.

(3) An AMOC that provides an acceptable level of safety may be used for any repair, modification, or alteration required by this AD if it is approved by The Boeing Company Organization Designation Authorization (ODA) that has been authorized by the Manager, AIR–520, Continued Operational Safety Branch, to make those findings. To be approved, the repair method, modification deviation, or alteration deviation must meet the certification basis of the airplane, and the approval must specifically refer to this AD.

(j) Related Information

(1) For more information about this AD, contact Wayne Ha, Aviation Safety Engineer, FAA, 3960 Paramount Boulevard, Lakewood, CA 90712; phone: 562–627–5238; email: wayne.ha@faa.gov.

(2) Service information identified in this AD that is not incorporated by reference is available at the addresses specified in paragraphs (k)(3) and (4) of this AD.

(k) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(i) Boeing Alert Requirements Bulletin 757–53A0119 RB, dated October 12, 2022.

(ii) [Reserved]

(3) For service information identified in this AD, contact Boeing Commercial Airplanes, Attention: Contractual & Data Services (C&DS), 2600 Westminister Blvd., MC 110–SK57, Seal Beach, CA 90740–5600; telephone 562–797–1717; website myboeingfleet.com.

(4) You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206–231–3195.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, fr.inspection@nara.gov, or go to: www.archives.gov/federal-register/cfr/ibr-locations.html.

Issued on August 23, 2023.

Victor Wicklund,

Deputy Director, Compliance & Airworthiness Division, Aircraft Certification Service.

[FR Doc. 2023–18839 Filed 9–5–23; 8:45 am]

BILLING CODE 4910–13–P

DEPARTMENT OF TRANSPORTATION**Federal Aviation Administration****14 CFR Part 39**

[Docket No. FAA–2023–1815; Project Identifier MCAI–2023–00581–T]

RIN 2120–AA64

Airworthiness Directives; Airbus SAS Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: The FAA proposes to adopt a new airworthiness directive (AD) for all Airbus SAS Model A321–111, –112, –131, –211, –212, –213, –231, and –232 airplanes. This proposed AD was prompted by stress analysis results indicating that cracks may appear in the center wing box at frame 42 and slanted junction areas. This proposed AD would require a one-time inspection of the center wing box at frame 42 and slanted junction areas, and applicable corrective actions, if necessary, as specified in a European Union Aviation Safety Agency (EASA) AD, which is proposed for incorporation by reference (IBR). The FAA is proposing this AD to address the unsafe condition on these products.

DATES: The FAA must receive comments on this proposed AD by October 23, 2023.

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- *Federal eRulemaking Portal:* Go to *regulations.gov*. Follow the instructions for submitting comments.

- *Fax:* 202–493–2251.

- *Mail:* U.S. Department of Transportation, Docket Operations, M–30, West Building Ground Floor, Room W12–140, 1200 New Jersey Avenue SE, Washington, DC 20590.

- *Hand Delivery:* Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

AD Docket: You may examine the AD docket at *regulations.gov* under Docket No. FAA–2023–1815; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this NPRM, the mandatory continuing airworthiness information (MCAI), any comments received, and other information. The street address for Docket Operations is listed above.

Material Incorporated by Reference:

- For EASA material that is proposed for IBR in this AD, contact EASA,

Konrad-Adenauer-Ufer 3, 50668 Cologne, Germany; telephone +49 221 8999 000; email *ADs@easa.europa.eu*; website *easa.europa.eu*. You may find this material on the EASA website at *ad.easa.europa.eu*.

- You may view this material at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206–231–3195.

FOR FURTHER INFORMATION CONTACT: Tim Dowling, Aviation Safety Engineer, FAA, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; phone 206–231–3667; email: *timothy.p.dowling@faa.gov*.

SUPPLEMENTARY INFORMATION:**Comments Invited**

The FAA invites you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under **ADDRESSES**. Include “Docket No. FAA–2023–1815; Project Identifier MCAI–2023–0581–T” at the beginning of your comments. The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. The FAA will consider all comments received by the closing date and may amend this proposal because of those comments.

Except for Confidential Business Information (CBI) as described in the following paragraph, and other information as described in 14 CFR 11.35, the FAA will post all comments received, without change, to *regulations.gov*, including any personal information you provide. The agency will also post a report summarizing each substantive verbal contact received about this NPRM.

Confidential Business Information

CBI is commercial or financial information that is both customarily and actually treated as private by its owner. Under the Freedom of Information Act (FOIA) (5 U.S.C. 552), CBI is exempt from public disclosure. If your comments responsive to this NPRM contain commercial or financial information that is customarily treated as private, that you actually treat as private, and that is relevant or responsive to this NPRM, it is important that you clearly designate the submitted comments as CBI. Please mark each page of your submission containing CBI as “PROPIN.” The FAA will treat such marked submissions as confidential under the FOIA, and they will not be placed in the public docket of this NPRM. Submissions containing CBI

should be sent to Tim Dowling, Aviation Safety Engineer, FAA, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; phone 206–231–3667; email: *timothy.p.dowling@faa.gov*. Any commentary that the FAA receives which is not specifically designated as CBI will be placed in the public docket for this rulemaking.

Background

EASA, which is the Technical Agent for the Member States of the European Union, has issued EASA AD 2023–0074, dated April 5, 2023 (EASA AD 2023–0074) (also referred to as the MCAI), to correct an unsafe condition for all Airbus SAS Model A321–111, –112, –131, –211, –212, –213, –231, and –232 airplanes. The MCAI states that stress analysis results from A321 XLFR certification and fatigue and damage tolerance harmonization have revealed that cracks may appear in the center wing box at frame 42 and slanted junction areas of the affected airplanes. Cracks may appear due to the high fatigue stress in affected areas.

The FAA is proposing this AD to detect potential cracks in the center wing box at frame 42 and slanted junction areas. The unsafe condition, if not addressed, could affect the structural integrity of the fuselage. See EASA AD 2023–0074 for additional background information.

You may examine the MCAI in the AD docket at *regulations.gov* under Docket No. FAA–2023–1815.

Related Service Information Under 14 CFR Part 51

EASA AD 2023–0074 specifies procedures for one-time rototest and high frequency eddy current inspections for cracks of the center wing box rear lower spar junction area at frame 42; a rototest inspection for cracks of the frame 42 slanted beam connection; a detailed visual inspection of certain fasteners for damage; and applicable corrective actions. Corrective actions include obtaining and following instructions for crack repair and replacing damaged fasteners. This material is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in **ADDRESSES**.

FAA’s Determination

This product has been approved by the aviation authority of another country and is approved for operation in the United States. Pursuant to the FAA’s bilateral agreement with this State of Design Authority, it has notified the FAA of the unsafe condition described

in the MCAI referenced above. The FAA is issuing this NPRM after determining that the unsafe condition described previously is likely to exist or develop in other products of the same type design.

Proposed AD Requirements in This NPRM

This proposed AD would require accomplishing the actions specified in EASA AD 2023–0074 described previously, except for any differences identified as exceptions in the regulatory text of this proposed AD.

Explanation of Required Compliance Information

In the FAA's ongoing efforts to improve the efficiency of the AD process, the FAA developed a process to use some civil aviation authority (CAA)

ADs as the primary source of information for compliance with requirements for corresponding FAA ADs. The FAA has been coordinating this process with manufacturers and CAAs. As a result, the FAA proposes to incorporate EASA AD 2023–0074 by reference in the FAA final rule. This proposed AD would, therefore, require compliance with EASA AD 2023–0074 in its entirety through that incorporation, except for any differences identified as exceptions in the regulatory text of this proposed AD. Using common terms that are the same as the heading of a particular section in EASA AD 2023–0074 does not mean that operators need comply only with that section. For example, where the AD requirement refers to "all required actions and compliance times," compliance with this AD requirement is

not limited to the section titled "Required Action(s) and Compliance Time(s)" in EASA AD 2023–0074. Service information required by EASA AD 2023–0074 for compliance will be available at *regulations.gov* under Docket No. FAA–2023–1815 after the FAA final rule is published.

Interim Action

The FAA considers that this proposed AD would be an interim action. If final action is later identified, the FAA might consider further rulemaking then.

Costs of Compliance

The FAA estimates that this AD, if adopted as proposed, would affect 657 airplanes of U.S. registry. The FAA estimates the following costs to comply with this proposed AD:

ESTIMATED COSTS FOR REQUIRED ACTIONS

Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Up to 25 work-hours × \$85 per hour = Up to \$2,125	* \$0	Up to \$2,125	Up to \$1,396,125.

* Additional work will be required if repairs are needed. Inspection results will determine extent (time and materials) of repair costs.

The FAA has received no definitive data on which to base the cost estimates for the on-condition actions specified in this proposed AD.

Paperwork Reduction Act

A federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to a penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act unless that collection of information displays a current valid OMB Control Number. The OMB Control Number for this information collection is 2120–0056. Public reporting for this collection of information is estimated to take approximately 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. All responses to this collection of information are mandatory. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to: Information Collection Clearance Officer, Federal Aviation Administration, 10101 Hillwood Parkway, Fort Worth, TX 76177–1524.

Authority for This Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

The FAA determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

(1) Is not a "significant regulatory action" under Executive Order 12866,

(2) Would not affect intrastate aviation in Alaska, and

(3) Would not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39—AIRWORTHINESS DIRECTIVES

■ 1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

■ 2. The FAA amends § 39.13 by adding the following new airworthiness directive:

Airbus SAS: Docket No. FAA–2023–1815; Project Identifier MCAI–2023–00581–T.

(a) Comments Due Date

The FAA must receive comments on this airworthiness directive (AD) by October 23, 2023.

(b) Affected ADs

None.

(c) Applicability

This AD applies to all Airbus SAS Model A321–111, –112, –131, –211, –212, –213, –231, and –232 airplanes, certificated in any category.

(d) Subject

Air Transport Association (ATA) of America Code 57, Wings.

(e) Unsafe Condition

This AD was prompted by stress analysis results indicating that cracks may appear in the center wing box at frame 42 and slanted junction areas. The FAA is issuing this AD to detect potential cracks in the center wing box at frame 42 and slanted junction areas. The unsafe condition, if not addressed, could affect the structural integrity of the fuselage.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Requirements

Except as specified in paragraph (h) of this AD: Comply with all required actions and compliance times specified in, and in accordance with, European Union Aviation Safety Agency (EASA) AD 2023–0074, dated April 5, 2023 (EASA AD 2023–0074).

(h) Exceptions to EASA AD 2023–0074

(1) Where EASA AD 2023–0074 refers to its effective date, this AD requires using the effective date of this AD.

(2) Where EASA AD 2023–0074 specifies to comply with “the instructions of the AOT,” this AD requires compliance with the procedures marked as required for compliance (RC) in the Alert Operators Transmission (AOT).

(3) This AD does not adopt the “Remarks” section of EASA AD 2023–0074.

(4) Where paragraph (3) of EASA AD 2023–0074 specifies to “contact Airbus for approved repair instructions and, within the compliance time specified therein, accomplish those instructions accordingly,” for this AD, if any cracking is detected, the cracking must be repaired before further flight using a method approved by the Manager, International Validation Branch, FAA; or EASA; or Airbus SAS’s EASA Design Organization Approval (DOA). If approved by the DOA, the approval must include the DOA-authorized signature.

(5) Paragraph (4) of EASA AD 2023–0074 specifies to report inspection results to Airbus within a certain compliance time. For this AD, report inspection results at the applicable time specified in paragraph (h)(5)(i) or (ii) of this AD.

(i) If the inspection was done on or after the effective date of this AD: Submit the report within 90 days after the inspection.

(ii) If the inspection was done before the effective date of this AD: Submit the report within 90 days after the effective date of this AD.

(6) Where paragraph (2) of EASA AD 2023–0074 refers to a ferry flight, a special flight permit may be issued in accordance with 14

CFR 21.197 and 21.199 provided the operators comply with the provisions specified in paragraph (2) of EASA AD 2023–0074.

(j) Additional AD Provisions

The following provisions also apply to this AD:

(1) *Alternative Methods of Compliance (AMOCs)*: The Manager, International Validation Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or responsible Flight Standards Office, as appropriate. If sending information directly to the International Validation Branch, send it to the attention of the person identified in paragraph (k) of this AD. Information may be emailed to: 9-AVS-AIR-730-AMOC@faa.gov. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the responsible Flight Standards Office.

(2) *Contacting the Manufacturer*: For any requirement in this AD to obtain instructions from a manufacturer, the instructions must be accomplished using a method approved by the Manager, International Validation Branch, FAA; or EASA; or Airbus SAS’s EASA DOA. If approved by the DOA, the approval must include the DOA-authorized signature.

(3) *Required for Compliance (RC)*: Except as required by paragraphs (h)(2) and (j)(2) of this AD, if any service information referenced in EASA AD 2023–0074 contains paragraphs that are labeled as RC, the instructions in RC paragraphs, including subparagraphs under an RC paragraph, must be done to comply with this AD; any paragraphs, including subparagraphs under those paragraphs, that are not identified as RC are recommended. The instructions in paragraphs, including subparagraphs under those paragraphs, not identified as RC may be deviated from using accepted methods in accordance with the operator’s maintenance or inspection program without obtaining approval of an AMOC, provided the instructions identified as RC can be done and the airplane can be put back in an airworthy condition. Any substitutions or changes to instructions identified as RC require approval of an AMOC.

(k) Additional Information

For more information about this AD, contact Tim Dowling, Aviation Safety Engineer, FAA, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; phone 206–231–3667; email: timothy.p.dowling@faa.gov.

(l) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless this AD specifies otherwise.

(i) European Union Aviation Safety Agency (EASA) AD 2023–0074, dated April 5, 2023.

(ii) [Reserved]

(3) For EASA AD 2023–0074, contact EASA, Konrad-Adenauer-Ufer 3, 50668 Cologne, Germany; telephone +49 221 8999 000; email ADs@easa.europa.eu; website easa.europa.eu. You may find this EASA AD on the EASA website at ad.easa.europa.eu.

(4) You may view this material at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206–231–3195.

(5) You may view this material that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, email fr.inspection@nara.gov, or go to: www.archives.gov/federal-register/cfr/ibr-locations.html.

Issued on August 30, 2023.

Victor Wicklund,

Deputy Director, Compliance & Airworthiness Division, Aircraft Certification Service.

[FR Doc. 2023–19075 Filed 9–5–23; 8:45 am]

BILLING CODE 4910–13–P

DEPARTMENT OF TRANSPORTATION**Federal Aviation Administration****14 CFR Part 71**

[Docket No. FAA–2023–1780; Airspace Docket No. 23–ASO–35]

RIN 2120–AA66

Revocation of Class D and Class E Airspace; Milton, FL

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: This action proposes to remove Class D airspace, Class E surface airspace, and Class E airspace extending upward from 700 feet above the surface for Choctaw NOLF, Milton, FL.

DATES: Comments must be received on or before October 23, 2023.

ADDRESSES: Send comments identified by FAA Docket No. FAA–2023–1780 and Airspace Docket No. 23–ASO–35 using any of the following methods:

* *Federal eRulemaking Portal:* Go to www.regulations.gov and follow the online instructions for sending your comments electronically.

* *Mail:* Send comments to Docket Operations, M–30; U.S. Department of Transportation, 1200 New Jersey Avenue SE, Room W12–140, West Building Ground Floor, Washington, DC 20590–0001.

* *Hand Delivery or Courier:* Take comments to Docket Operations in Room W12–140 of the West Building Ground Floor at 1200 New Jersey

Avenue SE, Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except for Federal holidays.

* Fax: Fax comments to Docket Operations at (202) 493-2251.

Docket: Background documents or comments received may be read at www.regulations.gov anytime. Follow the online instructions for accessing the docket or go to the Docket Operations in Room W12-140 of the West Building Ground Floor at 1200 New Jersey Avenue SE, Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except for Federal holidays.

FAA Order JO 7400.11G Airspace Designations and Reporting Points and subsequent amendments can be viewed online at www.faa.gov/air_traffic/publications/. You may also contact the Rules and Regulations Group, Office of Policy, Federal Aviation Administration, 800 Independence Avenue SW, Washington, DC 20591; telephone: (202) 267-8783.

FOR FURTHER INFORMATION CONTACT: John Fornito, Operations Support Group, Eastern Service Center, Federal Aviation Administration, 1701 Columbia Avenue, College Park, GA 30337; Telephone: (404) 305-6364.

SUPPLEMENTARY INFORMATION:

Authority for This Rulemaking

The FAA's authority to issue rules regarding aviation safety is found in Title 49 of the United States Code. Subtitle I, Section 106 describes the authority of the FAA Administrator. Subtitle VII, Aviation Programs, describes in more detail the scope of the agency's authority. This rulemaking is promulgated under the authority described in Subtitle VII, Part A, Subpart I, Section 40103. Under that section, the FAA is charged with prescribing regulations to assign the use of airspace necessary to ensure the safety of aircraft and the efficient use of airspace. This regulation is within the scope of that authority, as it would remove Class D and Class E airspace in Milton, FL. The closing of the air traffic control tower and cancellation of all instrument approaches determined that this update is necessary to support operations in the area.

Comments Invited

The FAA invites interested persons to participate in this rulemaking by submitting written comments, data, or views. Comments are specifically invited on the proposal's overall regulatory, aeronautical, economic, environmental, and energy-related aspects. The most helpful comments reference a specific portion of the

proposal, explain the reason for any recommended change, and include supporting data. To ensure the docket does not contain duplicate comments, commenters should submit only one time if comments are filed electronically, or commenters should send only one copy of written comments if comments are filed in writing.

The FAA will file in the docket all comments it receives and a report summarizing each substantive public contact with FAA personnel concerning this proposed rulemaking. Before acting on this proposal, the FAA will consider all comments it receives on or before the closing date for comments. The FAA will consider comments filed after the comment period has closed if it is possible to do so without incurring expense or delay. The FAA may change this proposal in light of the comments it receives.

Privacy: In accordance with 5 U.S.C. 553(c), DOT solicits comments from the public to better inform its rulemaking process. DOT posts these comments, without edit, including any personal information the commenter provides, to www.regulations.gov, as described in the system of records notice (DOT/ALL-14 FDMS), which can be reviewed at www.dot.gov/privacy.

Availability of Rulemaking Documents

An electronic copy of this document may be downloaded through the internet at www.regulations.gov. Recently published rulemaking documents can also be accessed through the FAA's web page at www.faa.gov/air_traffic/publications/airspace_amendments/.

You may review the public docket containing the proposal, any comments received, and any final disposition in person in the Dockets Operations office (see **ADDRESSES** section for address, phone number, and hours of operations). An informal docket may also be examined during normal business hours at the office of the Eastern Service Center, Federal Aviation Administration, Room 210, 1701 Columbia Ave., College Park, GA 30337.

Incorporation by Reference

Class D and Class E airspace designations are published in Paragraphs 5000, 6002, and 6005 of FAA Order JO 7400.11, Airspace Designations and Reporting Points, which is incorporated by reference in 14 CFR 71.1 annually. This document proposes to amend the current version of that order, FAA Order JO 7400.11G, Airspace Designations and Reporting Points, dated August 19, 2022, and

effective September 15, 2022. These updates would be published subsequently in the next update to FAA Order JO 7400.11. FAA Order JO 7400.11G is publicly available as listed in the **ADDRESSES** section of this document. FAA Order JO 7400.11G lists Class A, B, C, D, and E airspace areas, air traffic service routes, and reporting points.

The Proposal

The FAA proposes an amendment to 14 CFR part 71 to remove Class D airspace, Class E surface airspace, and Class E airspace extending upward from 700 feet above the surface for Choctaw NOLF, Milton, FL, as the air traffic control tower has closed, and all instrument approaches canceled.

Regulatory Notices and Analyses

The FAA has determined that this proposed regulation only involves an established body of technical regulations for which frequent and routine amendments are necessary to keep them operationally current. It, therefore, (1) is not a "significant regulatory action" under Executive Order 12866; (2) is not a "significant rule" under Department of Transportation (DOT) Regulatory Policies and Procedures (44 FR 11034; February 26, 1979); and (3) does not warrant preparation of a regulatory evaluation as the anticipated impact is so minimal. Since this is a routine matter that will only affect air traffic procedures and air navigation, it is certified that this proposed rule, when promulgated, will not have a significant economic impact on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

Environmental Review

This proposal will be subject to an environmental analysis per FAA Order 1050.1F, "Environmental Impacts: Policies and Procedures," before any FAA final regulatory action.

Lists of Subjects in 14 CFR Part 71

Airspace, Incorporation by reference, Navigation (air).

The Proposed Amendment

In consideration of the foregoing, the Federal Aviation Administration proposes to amend 14 CFR part 71 as follows:

PART 71—DESIGNATION OF CLASS A, B, C, D, AND E AIRSPACE AREAS; AIR TRAFFIC SERVICE ROUTES; AND REPORTING POINTS

■ 1. The authority citation for part 71 continues to read as follows:

Authority: 49 U.S.C. 106(f), 106(g); 40103, 40113, 40120; E.O. 10854, 24 FR 9565, 3 CFR, 1959–1963 Comp., p. 389.

§ 71.1 [Amended]

■ 2. The incorporation by reference in 14 CFR 71.1 of FAA Order JO 7400.11G, Airspace Designations and Reporting Points, dated August 19, 2022, and effective September 15, 2022, is amended as follows:

Paragraph 5000 Class D Airspace.
* * * * *

ASO FL D Milton, FL [Removed]
* * * * *
Paragraph 6002 Class E Surface Airspace.
* * * * *

ASO FL E2 Milton, FL [Removed]
* * * * *
Paragraph 6005 Class E Airspace Areas Extending Upward From 700 Feet or More Above the Surface of the Earth.
* * * * *

ASO FL E5 Choctaw Outlying Field, FL [Removed]
* * * * *
ASO FL E5 Milton, FL [Removed]
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Issued in College Park, Georgia, on August 29, 2023.
Lisa E. Burrows,
Manager, Airspace & Procedures Team North, Eastern Service Center, Air Traffic Organization.
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Notices

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This section of the FEDERAL REGISTER contains documents other than rules or proposed rules that are applicable to the public. Notices of hearings and investigations, committee meetings, agency decisions and rulings, delegations of authority, filing of petitions and applications and agency statements of organization and functions are examples of documents appearing in this section.

DEPARTMENT OF AGRICULTURE

Food and Nutrition Service

Agency Information Collection

Activities: Assessing Equity in Work Requirements and SNAP Employment & Training

AGENCY: Food and Nutrition Service, U.S. Department of Agriculture.

ACTION: Notice.

SUMMARY: In accordance with the Paperwork Reduction Act of 1995, this notice invites the general public and other public agencies to comment on this proposed information collection for the *Assessing Equity in Work Requirements and SNAP [Supplemental Nutrition Assistance Program] Employment & Training* study. This is a new information collection request. This study informs the U.S. Department of Agriculture's (USDA) Food and Nutrition Service (FNS) about feasible options for assessing and monitoring equity in the administration of SNAP work requirements and SNAP Employment and Training (E&T) services.

DATES: Written comments must be received on or before November 6, 2023.

ADDRESSES: Comments may be sent to Kristen Corey, USDA Food and Nutrition Service, Office of Policy Support, 1320 Braddock Place, Alexandria, VA 22314. Comments may also be submitted via email to Kristen.Corey@usda.gov. Comments will also be accepted through the Federal eRulemaking Portal. Go to <http://www.regulations.gov>, and follow the online instructions for submitting comments electronically.

All responses to this notice will be summarized and included in the request for Office of Management and Budget approval. All comments will be a matter of public record.

FOR FURTHER INFORMATION CONTACT:

Requests for additional information or

copies of this information collection should be directed to Kristen Corey at (703) 305-2517.

SUPPLEMENTARY INFORMATION: Comments are invited on (a) whether the proposed collection of information is necessary for the proper performance of the functions of the agency, including whether the information shall have practical utility; (b) the accuracy of the agency's estimate of the burden of the proposed collection of information, including the validity of the methodology and assumptions that were used; (c) ways to enhance the quality, utility, and clarity of the information to be collected; and (d) ways to minimize the burden of the collection of information on those who are to respond, including use of appropriate automated, electronic, mechanical, or other technological collection techniques or other forms of information technology.

Title: Assessing Equity in Work Requirements and SNAP Employment and Training.

Form Number: Not applicable.

OMB Number: 0584-NEW.

Expiration date: Not yet determined.

Type of request: New collection.

Abstract: Section 17 [7 U.S.C. 2026] (a)(1) of the Food and Nutrition Act of 2008, as amended, provides general legislative authority for the planned data collection. It authorizes the Secretary of Agriculture to enter into contracts with private institutions to undertake research that will help improve the administration and effectiveness of SNAP.

FNS is conducting this study to identify data available from SNAP State agencies, their E&T provider partners, and other sources that can be used to develop measures to assess equity in the administration of SNAP work requirements and E&T services. The developed measures can be used to determine how and whether States are providing equitable access to SNAP through the administration of work requirements, achieving equitable participation in education and training opportunities through the SNAP E&T program, and adopting program option and discretionary policies and procedures that influence disparities. FNS has identified four objectives for this study:

(1) Identify areas in the administration of work requirements in

SNAP and in SNAP E&T program administration and access where equity issues could occur.

(2) Identify and describe the data that could be used to assess access and outcomes in the areas identified in Objective 1.

(3) Describe how State agencies address equity in administering work requirements in their SNAP and SNAP E&T programs.

(4) Develop recommendations on how FNS should assess and measure equity in the administration of work requirements in SNAP and in SNAP E&T program administration and access.

The study will gather data through a web-based survey and document review of all 53 SNAP State agencies and key informant interviews in six States. The web-based survey will provide information on current practices addressing equity and data available to assess equity. The web-based survey questions will be limited to those not answerable through the document review. The document review will include extant documents, manuals, guides, and other data sources from all 53 SNAP State agencies. We will identify nine SNAP State agencies and recruit as necessary to ensure the completion of key informant interviews in six States. The key informant interviews will include staff from each of the six study States at (1) the SNAP State agency office and (2) the SNAP local office; interviews will also include (3) SNAP E&T providers and (4) relevant interested parties, who may be government employees or representatives of academic and business interests (e.g., community-based organizations, community college consortium, American Job Centers). We will pretest the web-based survey with individuals with previous experience working in SNAP State agencies. We will pretest the key informant interviews with State and local office staff from a SNAP State agency not selected as a study State.

This study aligns with President Biden's January 20, 2021, Executive Order on Advancing Racial Equity and Support for Underserved Communities Through the Federal Government and the goal of equitable implementation of Federal programs.¹ These data will

¹ The White House. (2021). Executive order on advancing racial equity and support for

ultimately result in recommendations on how FNS can assess and measure equity in the administration of work requirements and SNAP E&T. The data collected will be kept private and will not be shared with anyone outside the study team and FNS research and administrative staff.

Affected public: Members of the public affected by the data collection include State, local, and Tribal governments; business (for profit and not for profit); and individuals.

Respondent groups identified include the following:

(1) *State, local, and Tribal government:* The web-based survey will be completed by all 53 SNAP State agency Directors with input from SNAP E&T Directors and SNAP State agency data analysts who are familiar with SNAP data and data systems. Submission of files for document review will be completed by the SNAP State agency Directors and data analysts.

Staff from the SNAP State office, the SNAP local office, and an interested party will pretest the interview instruments. The key informant interviews will be conducted in the six study States with SNAP State agency Directors, State agency data analysts, SNAP E&T Directors, staff from two local offices, SNAP E&T providers, and interested parties, such as staff at American Job Centers.

(2) *Business (for profit and not for profit):* One SNAP E&T provider will pretest the interview instrument. SNAP E&T providers and interested parties, such as staff at community-based organizations from the six study States, will participate in key informant interviews.

(3) *Individuals:* Six individuals will pretest the web-based survey instrument.

Pretesting: We anticipate 100 percent participation from the respondents involved in pretesting the web-based survey and the key informant interview guides. Six individuals with previous experience working in SNAP State agencies will pretest the web-based survey. Key informant interview instruments will be pretested by one SNAP State Director, one local SNAP E&T administrator, one interested party, and one SNAP E&T provider.

Survey: We will contact all 53 SNAP State agency Directors to request that they complete the survey. FNS anticipates 100 percent participation

from the SNAP State agency Directors. Each SNAP State agency Director may designate up to two staff to complete sections of the survey, accounting for up to an additional 106 State agency staff participating as respondents (159 SNAP State agency staff respondents total). This is the highest possible number of survey respondents.

Document review: When recruited for participation in the survey, SNAP State agencies will also be asked to submit documents for a document review; FNS anticipates 100 percent participation. We will reach out to 53 SNAP State agency Directors to submit documents; Directors will be assisted by one staff member (*i.e.*, data analyst) to identify the necessary documents.

Key informant interviews: We will identify nine candidate States and conduct key informant interview in six States. The key informant interviews will involve semi-structured interviews with program administrators and staff of SNAP State agencies and SNAP local agencies, businesses or other agencies providing SNAP E&T services, and interested parties representing other government agencies or businesses. After FNS and the study team recruit the six States, FNS expects all selected local SNAP agencies, SNAP providers, and interested parties to participate.

Estimated number of respondents: The total estimated number of respondents is 264 as follows: 203 State, local, and Tribal government staff; 55 business (for profit and not for profit) staff; and 6 individuals. Of the 264 contacted, 264 are estimated to be responsive, and three are estimated to be nonresponsive. The breakout of respondents follows:

(1) *State, local, and Tribal government staff:* Of the 159 SNAP State agency staff contacted, 159 are estimated to be responsive, and three will be nonresponsive. The web-based survey will be completed by 53 SNAP State Directors, 53 data analysts, and 53 SNAP E&T Directors; we expect them all to be responsive. The submission of files for document review will be completed by 53 SNAP State Directors and 53 data analysts; we expect them all to be responsive. Before beginning key informant interviews, we will pretest the interview instruments with a SNAP State Director, a local SNAP E&T administrator, and an interested party working for the government; we expect them all to be responsive. We will conduct key informant interviews in six study States. To successfully recruit six study States, FNS and the study team will contact up to nine SNAP State Directors; six SNAP State Directors will agree to participate in the interviews

and three will be nonresponsive. Other State staff joining the SNAP State Directors for the key informant interviews will be six data analysts and six SNAP E&T Directors, who will all be responsive, and zero will be nonresponsive. Other local government staff will include 12 local SNAP E&T administrators, 24 local office staff, and six interested parties working for the government will be contacted and be responsive; zero will be nonresponsive.

(2) *Business (for profit and not for profit) staff:* One SNAP E&T provider will be recruited to pretest the key informant interview instrument, and they will be responsive. Of the 48 SNAP E&T providers contacted for key informant interviews in the six study States, 48 are estimated to be responsive, and zero will be nonresponsive. Six interested parties employed by businesses will be contacted for key informant interviews; we expect all six to be responsive and zero to be nonresponsive.

(3) *Individuals:* Of the six individuals recruited to pretest the web-based survey, all six are estimated to be responsive, and zero will be nonresponsive.

Estimated number of responses per respondent: 3.67—based on 981 total annual responses (978 responsive and 3 nonresponsive) made by the 264 respondents (264 responsive and three nonresponsive). See table 1 for the estimated number of responses per respondent for each type of respondent.

The estimate breakout follows:

(1) State, local, and Tribal government staff:

(a) *SNAP State Staff (159):* The estimated number of responses per SNAP State staff is 4.23:

—Fifty-three SNAP State Directors will receive recruitment emails from FNS and the study team for the web-based survey. They will all respond and complete the web-based survey. The SNAP State Directors will coordinate with their staff to support the accurate completion of the survey; 53 data analysts and 53 SNAP E&T Directors will assist in the completion of the web-based survey.

—Fifty-three SNAP State Directors will respond to the request for the submission of files for document review, including reading advance materials and preparation of the files for submission. SNAP State Directors will coordinate with their staff to obtain the necessary files; 53 data analysts will assist in the preparation of documents.

—One SNAP State Director will be recruited and will pretest the key

informant interview instrument that will be used with SNAP State office staff.

- Up to nine SNAP State Directors will receive and respond to an email invitation to participate in key informant interviews. SNAP State Directors in selected States will receive an introductory email from the study team and have a meeting to schedule interviews and ask questions. Of the up to nine SNAP State Directors, six will agree to participate in the virtual key informant interviews and up to three will decline to participate.

- Six SNAP E&T Directors and six data analysts will also participate in virtual key informant interviews.

(b) *Local SNAP office staff (37)*: The estimated number of responses per local SNAP office staff is 2.97:

- One local SNAP E&T administrator will be recruited and will pretest the key informant interview instrument that will be used with SNAP local office staff.
- Twelve local SNAP E&T administrators will respond to scheduling and take part in virtual key informant interviews; 24 additional local SNAP office staff will take part in virtual key informant interviews.

(c) *Non-SNAP State and local government agency staff (7)*: The estimated number of responses per non-SNAP State and local staff is 2.86:

- One interested party will be recruited and will pretest the key informant interview instrument that will be used with interested parties.
- Six interested parties employed by either State or local government agencies will respond to scheduling and take part in virtual key informant interviews.

(2) *Business (for profit and not for profit) SNAP E&T providers (55)*: The estimated number of responses per business stakeholder staff is 2.98:

- One SNAP E&T provider will be recruited and will pretest the key informant interview instrument that will be used with E&T providers.
- Forty-eight business E&T provider staff will respond to scheduling and participate in virtual key informant interviews.
- Six interested parties employed by a for-profit or not-for-profit business will respond to scheduling and participate in virtual key informant interviews.

(3) *Individuals (6)*: The estimated number of responses per individuals is 2.00:

- Six individuals will be recruited and will pretest the web-based survey that will be administered to all 53 SNAP State agencies.

Estimated total frequency response per respondent. FNS anticipates 3.67 responses per respondent.

Estimated total annual responses: 981 (978 annual responses for responsive participants and 3 annual responses for nonresponsive participants).

Estimated time per response: 0.3796 hours (0.38 hours for responsive participants and 0.25 hours for nonresponsive participants). Among respondents, the estimated time of response varies from 0.03 hours to 1.50 hours depending on respondent group and activity, as table 1 shows.

Estimated total annual burden on respondents and nonrespondents: 372.41 hours (371.66 hours for responsive participants and 0.75 hours for nonresponsive participants). See table 1 for estimated total annual burden for each type of respondent.

Tameka Owens,

Acting Administrator, Food and Nutrition Service.

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Table 1. Total Public Burden Hours

Respondent category	Type of respondents	Instruments	Respondents					Non-Respondents					Grand Total Annual Burden Estimate (hours)	Hourly Wage Rate ^c	Total Annualized Cost of Respondent Burden ^d
			Sample Size ^a	Number of respondents	Frequency of response	Total annual responses	Hours per response ^b	Annual burden (hours)	Number of Non-respondents	Frequency of response	Total annual responses	Hours per response ^b	Annual burden (hours)		
State, Local, and Tribal Government		Pretesting: recruitment and scheduling	1	1	1	1	0.2500	0.25	0	0	0	0	0	83.90	20.97
		Pretesting of key informant interview	1	1	1	1	1.5000	1.50	0	0	0	0	0	83.90	125.84
SNAP State office	SNAP State director	Initial survey recruitment email from FNS	53	53	1	53	0.0835	4.43	0	0	0	0	0	83.90	371.28
		Introductory email from study team and survey launch email	53	53	1	53	0.0835	4.43	0	0	0	0	0	83.90	371.28
		Web-based survey completion	53	53	1	53	0.8350	44.26	0	0	0	0	0	83.90	3712.84
		First email reminder	38	38	1	38	0.0334	1.27	0	0	0	0	0	83.90	106.48
		First followup phone reminder	27	27	1	27	0.0835	2.25	0	0	0	0	0	83.90	189.14
		Second email reminder	16	16	1	16	0.0334	0.53	0	0	0	0	0	83.90	44.83
		Second followup phone reminder	11	11	1	11	0.0835	0.92	0	0	0	0	0	83.90	77.06
		Survey completion thank you email	53	53	1	53	0.0334	1.77	0	0	0	0	0	83.90	148.51
		Submission of document review	53	53	1	53	0.6680	35.40	0	0	0	0	0	83.90	2970.27
		Document reminder email	38	38	1	38	0.0334	1.27	0	0	0	0	0	83.90	106.48
		Email to data analyst regarding submission of document review files	53	53	1	53	0.0835	4.43	0	0	0	0	0	83.90	371.28
		Key informant interview: initial study state invitation email from FNS	9	9	1	9	0.0835	0.75	0	0	0	0	0	83.90	63.05

Respondent category	Type of respondents	Instruments	Respondents					Non-Respondents					Grand Total Annual Burden Estimate (hours)	Hourly Wage Rate ^c	Total Annualized Cost of Respondent Burden ^d
			Sample Size ^a	Number of respondents	Frequency of response	Total annual responses	Hours per response ^b	Annual burden (hours)	Number of non-respondents	Frequency of response	Total annual responses	Hours per response ^b	Annual burden (hours)		
SNAP local office	Data analyst	Key informant interview: Introductory email and phone call from study team	9	6	1	6	0.2500	1.50	3	1	3	0.2500	0.75	83.90	188.77
		State staff virtual key informant interview	6	6	1	6	1.5000	9.00	0	0	0	0	0	83.90	755.07
		Key informant interview thank you email	6	6	1	6	0.0334	0.20	0	0	0	0	0	83.90	16.81
		Web-based survey completion	53	53	1	53	0.5845	30.98	0	0	0	0	0	65.56	2030.82
		Submission of document review	53	53	1	53	1.0835	57.43	0	0	0	0	0	65.56	3764.57
		Invitation email to State staff key informant interview	6	6	1	6	0.0835	0.50	0	0	0	0	0	65.56	32.84
		State staff key informant interview	6	6	1	6	1.5000	9.00	0	0	0	0	0	65.56	590.00
		Key informant interview thank you email	6	6	1	6	0.0334	0.20	0	0	0	0	0	65.56	13.14
		Web-based survey completion	53	53	1	53	0.5845	30.98	0	0	0	0	0	83.90	2598.98
		Invitation email to State staff key informant interview	6	6	1	6	0.0835	0.50	0	0	0	0	0	83.90	42.03
		State staff key informant interview	6	6	1	6	1.5000	9.00	0	0	0	0	0	83.90	755.07
		Key informant interview thank you email	6	6	1	6	0.0334	0.20	0	0	0	0	0	83.90	16.81
		Subtotal for State SNAP staff ^e	159	159	4.23	672	0.3764	252.94	3	1	3	0.2500	0.75	253.69	19484.25
		Pretesting: recruitment and scheduling	1	1	1	1	0.2500	0.25	0	0	0	0	0	72.52	18.13
		Pretesting of key informant interview	1	1	1	1	1.0000	1.00	0	0	0	0	0	72.52	72.52

Respondent category	Type of respondents	Instruments	Respondents						Non-Respondents					Grand Total Annual Burden Estimate (hours)	Hourly Wage Rate ^c	Total Annualized Cost of Respondent Burden ^d
			Sample Size ^a	Number of respondents	Frequency of response	Total annual responses	Hours per response ^b	Annual burden (hours)	Number of Non-respondents	Frequency of response	Total annual responses	Hours per response ^b	Annual burden (hours)			
Non-SNAP State and local government staff		Invitation email to local staff key informant interview	12	12	1	12	0.0835	1.00	0	0	0	0	0	1.00	72.52	72.67
		Local staff key informant interview	12	12	1	12	1.0000	12.00	0	0	0	0	0	12.00	72.52	870.30
		Key informant interview thank you email	12	12	1	12	0.0334	0.40	0	0	0	0	0	0.40	72.52	29.07
		Invitation email to local staff key informant interview	24	24	1	24	0.0835	2.00	0	0	0	0	0	2.00	31.99	64.10
	Local office staff	Local staff key informant interview	24	24	1	24	1.0000	24.00	0	0	0	0	0	24.00	31.99	767.68
		Key informant interview thank you email	24	24	1	24	0.0334	0.80	0	0	0	0	0	0.80	31.99	25.64
	Subtotal for local SNAP staff		37	37	2.97	110	0.3769	41.46	0	0	0	0	0	41.46		1920.11
	Interested parties	Pretesting: recruitment and scheduling	1	1	1	1	0.2500	0.25	0	0	0	0	0	0.25	35.66	8.91
		Pretesting of key informant interview	1	1	1	1	1.2500	1.25	0	0	0	0	0	1.25	35.66	44.57
		Invitation email to interested parties key informant interview	6	6	1	6	0.0835	0.50	0	0	0	0	0	0.50	35.66	17.86
		Interested parties key informant interview	6	6	1	6	1.0000	6.00	0	0	0	0	0	6.00	35.66	213.94
		Key informant interview thank you email	6	6	1	6	0.0334	0.20	0	0	0	0	0	0.20	35.66	7.15
	Subtotal for non-SNAP State and local staff		7	7	2.86	20	0.4101	8.20	0	0	0	0	0	8.20		292.44
State/local/tribal government subtotal			203	203	3.95	802	0.3773	302.60	3	0.000	3	0.2500	0.75	303.35		21,696.80

Respondent category	Type of respondents	Instruments	Respondents				Non-Respondents				Grand Total Annual Burden Estimate (hours)	Hourly Wage Rate ^c	Total Annualized Cost of Respondent Burden ^d
			Sample Size ^a	Number of respondents	Frequency of response	Total annual responses	Hours per response ^b	Annual burden (hours)	Number of Non-respondents	Frequency of response	Total annual responses	Hours per response ^b	Annual burden (hours)
Businesses (For Profit and Not for Profit)	E&T providers	Pretesting: recruitment and scheduling	1	1	1	1	0.2500	0.25	0	0	0	35.66	8.91
		Pretesting of key informant interview	1	1	1	1	1.0000	1.00	0	0	0	35.66	35.66
		Invitation email to E&T provider key informant interview	48	48	1	48	0.0835	4.01	0	0	0	35.66	142.91
		E&T provider key informant interview	48	48	1	48	1.0000	48.00	0	0	0	35.66	1711.55
Businesses (for profit and not for profit)	Interested parties	Key informant interview thank you email	48	48	1	48	0.0334	1.60	0	0	0	35.66	57.17
		Invitation email to interested parties key informant interview	6	6	1	6	0.0835	0.50	0	0	0	35.66	17.86
		Interested parties key informant interview	6	6	1	6	1.0000	6.00	0	0	0	35.66	213.94
		Key informant interview thank you email	6	6	1	6	0.0334	0.20	0	0	0	35.66	7.15
Subtotal for Businesses			55	55	2.98	164	0.3754	61.56	0	0	0	61.56	2,195.16
Individuals													
Individuals	Survey pretesters	Pretesting: recruitment and scheduling	6	6	1	6	0.2500	1.50	0	0	0	83.90	125.84
		Pretesting of web-based survey	6	6	1	6	1.0000	6.00	0	0	0	83.90	503.38
Subtotal for Individuals			6	6	2.00	12	0.6250	7.50	0	0	0	7.50	629.22
Total			264	264	3.70	978	0.3800	371.66	3	1.00	3	372.41	24,521.18

Footnotes:

^a Numbers are always rounded up to the next whole number.^b Decimal values have been calculated by multiplying the decimal unit value of one minute (.0167) by the total number of minutes (Conversion of Minutes to Decimals)^c All hourly wage rates are fully loaded (using average hourly wage * 1.33 to obtain fully loaded wage).^d Costs are rounded up to the next whole cent.^e SNAP State directors invited to participate in interviews are a subset of the directors participating in the survey. We expect that nine directors will be invited to participate in interviews and three will decline to participate. The three non-respondents are noted in the table, but not double-counted in the sample size column.

DEPARTMENT OF AGRICULTURE**Forest Service****Grand Mesa, Uncompahgre, and Gunnison National Forests; Revision of the Land Management Plan for the Grand Mesa, Uncompahgre, and Gunnison National Forests**

AGENCY: Forest Service, Agriculture (USDA).

ACTION: Notice of opportunity to object to the revised Land Management Plan and the Regional Forester's list of species of conservation concern for the Grand Mesa, Uncompahgre, and Gunnison National Forests.

SUMMARY: The Forest Service, U.S. Department of Agriculture, is revising the Grand Mesa, Uncompahgre, and Gunnison National Forests' Land Management Plan (Plan). The Forest Service has prepared a Final Environmental Impact Statement (FEIS) for the revised Plan and draft Record of Decision (ROD). This notice is to inform the public that the Grand Mesa, Uncompahgre, and Gunnison National Forests (GMUG National Forests) are initiating a 60-day period where individuals or entities with specific concerns about the Grand Mesa, Uncompahgre, and Gunnison National Forests' revised Plan and the associated FEIS may file objections for Forest Service review prior to the approval of the revised Plan. This is also an opportunity to object to the Regional Forester's list of species of conservation concern for the Grand Mesa, Uncompahgre, and Gunnison National Forests.

DATES: The publication date of the legal notice in the Grand Mesa, Uncompahgre, and Gunnison National Forests' newspaper of record, *Grand Junction Sentinel*, initiates the 60-day objection filing period and is the exclusive means for calculating the time to file an objection (36 CFR 219.52(c)(5)). An electronic copy of the legal notice with the publication date will be posted at <https://www.fs.usda.gov/goto/gmug/forestplan>.

ADDRESSES: The Grand Mesa, Uncompahgre, and Gunnison National Forests' revised Plan, FEIS, draft ROD, the Regional Forester's list of species of conservation concern, and other supporting information will be available for review at: <https://www.fs.usda.gov/goto/gmug/forestplan> or at the following office: Grand Mesa, Uncompahgre, and Gunnison National Forests, 2250 Main Street, Delta, CO 81416, phone: 970-874-6600.

Objections must be submitted to the Objection Reviewing Officer by one of the following methods:

- *Electronically to the Objection Reviewing Officer:* Electronic objections are preferred and may be submitted through the project web page at <https://www.fs.usda.gov/goto/gmug/forestplan/objections>; Electronic submissions (including all attachments) must be submitted in a format (Word, PDF, or Rich Text) that is readable and searchable with optical character recognition software. An automated response will confirm your electronic objection has been received.

- *Via Regular Mail, Private Carrier, or Hand Delivery to the Following Address:* USDA Forest Service, Rocky Mountain Region, Attn: Objection Reviewing Officer, C/O Director of Strategic Planning, 2nd floor, 1617 Cole Blvd., Bldg. 17, Lakewood, CO 80401. For hand delivery, office hours are Monday through Friday, 8 a.m. to 4:30 p.m., excluding Federal holidays.

- *By Fax:* If fax is the only method available for objection, please contact Administrative Review Specialist Scarlett Vallaire at scarlett.vallaire@usda.gov or 801-989-6605.

FOR FURTHER INFORMATION CONTACT:

Forest Plan Revision Team Leader, Samantha Staley, at samantha.j.staley@usda.gov or 970-852-9812. Individuals who use telecommunication devices for the deaf and hard of hearing (TDD) may call the Federal Relay Service (FRS) at 800-877-8339, 24 hours a day, every day of the year, including holidays.

SUPPLEMENTARY INFORMATION: The decision to approve the revised Plan and the Regional Forester's list of species of conservation concern for the Grand Mesa, Uncompahgre, and Gunnison National Forests will be subject to the objection process identified in 36 CFR part 219 subpart B (219.50 to 219.62). Per 36 CFR 219.53, only individuals and entities who have submitted substantive formal comments related to a plan revision during the opportunities for public comment that are attributable to the objector may file an objection unless the objection concerns an issue that arose after the opportunities for formal comment.

How To File an Objection

Objections must be submitted to the Objection Reviewing Officer at the address shown in the **ADDRESSES** section of this notice. An objection must include the following (36 CFR 219.54(c)):

(1) The objector's name and address along with a telephone number or email address if available. In cases where no

identifiable name is attached to an objection, the Forest Service will attempt to verify the identity of the objector to confirm objection eligibility;

(2) Signature or other verification of authorship upon request (a scanned signature for electronic mail may be filed with the objection);

(3) Identification of the lead objector when multiple names are listed on an objection. The Forest Service will communicate to all parties to an objection through the lead objector. Verification of the identity of the lead objector must also be provided if requested;

(4) The name of the plan revision being objected to, and the name and title of the responsible official;

(5) A statement of the issues and/or parts of the plan revision to which the objection applies;

(6) A concise statement explaining the objection and suggesting how the draft plan decision may be improved. If the objector believes that the plan revision is inconsistent with law, regulation, or policy, an explanation should be included;

(7) A statement that demonstrates the link between the objector's prior substantive formal comments and the content of the objection, unless the objection concerns an issue that arose after the opportunities for formal comment; and

(8) All documents referenced in the objection (a bibliography is not sufficient), except the following need not be provided:

a. All or any part of a Federal law or regulation,

b. Forest Service Directive System documents and land management plans or other published Forest Service documents,

c. Documents referenced by the Forest Service in the planning documentation related to the proposal subject to objection, and

d. Formal comments previously provided to the Forest Service by the objector during the proposed plan, plan amendment, or plan revision comment period.

Additionally, objections should be identified as pertaining to the "GMUG National Forests Plan" or the "Regional Forester's Species of Conservation Concern List" for the GMUG National Forests, as these are subject to separate objection processes. Objectors filing objections on both topics should submit these as separate objection letters.

It is the responsibility of the objector to ensure that the Objection Reviewing Officer receives the objection in a timely manner. The regulations generally prohibit extending the length of the

objection filing period (36 CFR 219.56(d)). However, when the time period expires on a Saturday, Sunday, or a Federal holiday, the time is extended to the end of the next Federal working day (11:59 p.m. for objections filed by electronic means such as email or facsimile machine) (36 CFR 219.56).

Responsible Official: The responsible official who will approve the ROD for the Grand Mesa, Uncompahgre, and Gunnison National Forests' revised Plan is Forest Supervisor Chad Stewart, Grand Mesa, Uncompahgre, and Gunnison National Forests Headquarters, 2250 South Main Street, Delta, CO 81416, and phone: 970-874-6674. The responsible official for the list of species of conservation concern is Regional Forester Frank Beum, USDA Forest Service Rocky Mountain Region, 1617 Cole Blvd., Lakewood, CO 80401.

The Regional Forester is the reviewing officer for the revised Plan because the Forest Supervisor is the responsible official (36 CFR 219.56(e)). Objection review of the Regional Forester's list of species of conservation concern will be subject to a separate objection process from the objection review of the Plan. The Chief of the Forest Service is the reviewing officer for the list of species of conservation concern because the Regional Forester is the responsible official (36 CFR 219.56(e)(2)). This authority may be delegated to an individual Deputy Chief or Associate Deputy Chief for the National Forest System, consistent with delegations of authority provided in the Forest Service Manual at sections 1235.4 and 1235.5.

Dated: August 30, 2023.

Troy Heithecker,

Associate Deputy Chief, National Forest System.

[FR Doc. 2023-19109 Filed 9-5-23; 8:45 am]

BILLING CODE 3411-15-P

DEPARTMENT OF COMMERCE

International Trade Administration

[A-549-839]

Steel Propane Cylinders From Thailand: Preliminary Results of Antidumping Duty Administrative Review; 2021-2022

AGENCY: Enforcement and Compliance, International Trade Administration, Department of Commerce.

SUMMARY: The U.S. Department of Commerce (Commerce) preliminarily finds that Sahamitr Pressure Container Plc. (also known as Sahamitr Pressure Container Public Company Limited) (SMPC) made sales of steel propane

cylinders from Thailand at less than normal value (NV) during the period of review (POR), August 1, 2021, through July 31, 2022. We invite interested parties to comment on these preliminary results.

DATES: Applicable September 6, 2023.

FOR FURTHER INFORMATION CONTACT:

Samuel Brummitt, AD/CVD Operations, Office III, Enforcement and Compliance, International Trade Administration, U.S. Department of Commerce, 1401 Constitution Avenue NW, Washington, DC 20230; telephone: (202) 482-7851.

SUPPLEMENTARY INFORMATION:

Background

On August 15, 2019, Commerce published in the **Federal Register** the antidumping duty order on steel propane cylinders from Thailand.¹ On August 2, 2022, Commerce published in the **Federal Register** a notice of opportunity to request an administrative review of the *Order*.² On October 11, 2022, based on timely requests for review and in accordance with section 751(a)(1) of the Tariff Act of 1930, as amended (the Act) and 19 CFR 351.221(c)(1)(i), Commerce initiated an administrative review of the *Order*.³ Pursuant to section 751(a)(3)(A) of the Act, Commerce extended the deadline for the preliminary results until August 31, 2023.⁴

For a complete description of the events that followed the initiation of this review, see the Preliminary Decision Memorandum.⁵ A list of the topics included in the Preliminary Decision Memorandum is included as the appendix to this notice. The Preliminary Decision Memorandum is a public document and is on file electronically via Enforcement and Compliance's Antidumping and

Countervailing Duty Centralized Electronic Service System (ACCESS). ACCESS is available to registered users at <https://access.trade.gov>. In addition, a complete version of the Preliminary Decision Memorandum can be accessed directly at <https://access.trade.gov/public/FRNoticesListLayout.aspx>.

Scope of the Order

The merchandise covered by this *Order* is steel propane cylinders from Thailand. For a complete description of the scope of the *Order*, see the Preliminary Decision Memorandum.⁶

Methodology

Commerce is conducting this review in accordance with section 751(a) of the Act. Export price was calculated in accordance with section 772 of the Act. NV was calculated in accordance with section 773 of the Act. For a full description of the methodology underlying these preliminary results, see the Preliminary Decision Memorandum.

Preliminary Results of the Review

We preliminarily determine that the following estimated weighted-average dumping margin exists for the period August 1, 2021, through July 31, 2022:

Exporter/producer	Weighted-average dumping margin (percent)
Sahamitr Pressure Container Plc	2.12

Disclosure and Public Comment

We intend to disclose the calculations used for these preliminary results to interested parties within five days of the date of publication of this notice in accordance with 19 CFR 351.224(b). Interested parties may submit case briefs not later than seven days after the date on which the verification report is issued in this administrative review.⁷ Rebuttal briefs, limited to issues raised in the case briefs, may be filed not later than seven days after the date for filing case briefs.⁸ Parties who submit case briefs or rebuttal briefs in this review are encouraged to submit with each argument: (1) a statement of the issue; (2) a brief summary of the argument; and (3) a table of authorities.⁹ Executive

⁶ See Preliminary Decision Memorandum at "Scope of the Order."

⁷ See 19 CFR 351.309(c)(1)(ii).

⁸ See 19 CFR 351.309(d); see also *Temporary Rule Modifying AD/CVD Service Requirements Due to COVID-19; Extension of Effective Period*, 85 FR 41363 (July 10, 2020) (*Temporary Rule*).

⁹ See 19 CFR 351.309(c)(2) and (d)(2).

¹ See *Steel Propane Cylinders from the People's Republic of China and Thailand: Amended Final Determination of Sales at Less Than Fair Value and Antidumping Duty Orders*, 84 FR 41703 (August 15, 2019) (*Order*).

² See *Antidumping or Countervailing Duty Order, Finding, or Suspended Investigation; Opportunity To Request Administrative Review and Join Annual Inquiry Service List*, 87 FR 47187 (August 2, 2022).

³ See *Initiation of Antidumping and Countervailing Duty Administrative Reviews*, 87 FR 61278, 61284 (October 11, 2022); see also *Antidumping or Countervailing Duty Order, Finding, or Suspended Investigation; Opportunity To Request Administrative Review and Join Annual Inquiry Service List*, 87 FR 47187, 47188 (August 2, 2022).

⁴ See Memorandum, "Extension of Deadline for Preliminary Results of Antidumping Duty Administrative Review," dated April 3, 2023.

⁵ See Memorandum, "Decision Memorandum for Preliminary Results of Antidumping Duty Administrative Review: Steel Propane Cylinders from Thailand; 2021-2022," dated concurrently with, and hereby adopted by, this notice (Preliminary Decision Memorandum).

summaries should be limited to five pages total, including footnotes. All briefs must be filed electronically using ACCESS.¹⁰

Pursuant to 19 CFR 351.310(c), interested parties who wish to request a hearing, must submit a written request to the Assistant Secretary for Enforcement and Compliance, within 30 days after the date of publication of this notice in the **Federal Register**. Requests should contain: (1) the party's name, address and telephone number; (2) the number of participants; and (3) whether any participant is a foreign national; and (4) a list of issues to be discussed. Issues raised in the hearing will be limited to those raised by each party in their respective case and rebuttal briefs. If a request for a hearing is made, Commerce will announce the date and time of the hearing. Parties should confirm by telephone the date and time of the hearing two days before the scheduled hearing date.

Note that Commerce has temporarily modified certain of its requirements for serving documents containing business proprietary information, until further notice.¹¹ An electronically filed document must be received successfully in its entirety in ACCESS by 5:00 p.m. Eastern Time on the due date.

We intend to issue the final results of this administrative review, including the results of our analysis of the issues raised in any written briefs, not later than 120 days after the date of publication of this notice, unless extended, pursuant to section 751(a)(3)(A) of the Act.

Verification

On January 18, 2023, Worthington Industries (the petitioner) requested that Commerce conduct verification of SMPC's responses.¹² Accordingly, as provided in section 782(i)(3) of the Act, Commerce intends to verify the information relied upon in determining its final results.

Assessment Rates

Upon issuance of the final results of this review, Commerce shall determine, and U.S. Customs and Border Protection (CBP) shall assess, antidumping duties on all appropriate entries covered by this review. If the weighted-average dumping margin for SMPC (*i.e.*, the sole individually-examined respondent in this review) is not zero or *de minimis* (*i.e.*, greater than or equal to 0.5 percent) in the final results of this review, we

will calculate importer-specific *ad valorem* antidumping duty assessment rates on the basis of the ratio of the total amount of dumping calculated for the examined sales made during the POR to each importer and the total entered value of those same sales, in accordance with 19 CFR 351.212(b)(1). If SMPC has not reported entered values, we will calculate a per-unit assessment rate for each importer by dividing the total amount of dumping calculated for the examined sales made to that importer by the total quantity associated with those transactions. To determine whether an importer-specific, per-unit assessment rate is *de minimis*, in accordance with 19 CFR 351.106(c)(2), we also will calculate an importer-specific *ad valorem* ratio based on estimated entered values. Where either SMPC's weighted average dumping margin is zero or *de minimis*, or an importer-specific assessment *ad valorem* rate is zero or *de minimis*, we intend to instruct CBP to liquidate appropriate entries without regard to antidumping duties.¹³ The final results of this review shall be the basis for the assessment of antidumping duties on entries of merchandise covered by this review where applicable.

For entries of subject merchandise during the POR produced by SMPC for which the producer did not know its merchandise was destined for the United States, we will instruct CBP to liquidate those entries at the all-others rate (*i.e.*, 10.77 percent)¹⁴ if there is no rate for the intermediate company(ies) involved in the transaction.¹⁵

We intend to issue assessment instructions to CBP no earlier than 35 days after the date of publication of the final results of this review in the **Federal Register**. If a timely summons is filed at the U.S. Court of International Trade, the assessment instructions will direct CBP not to liquidate relevant entries until the time for parties to file a request for a statutory injunction has expired (*i.e.*, within 90 days of publication).

Cash Deposit Requirements

The following cash deposit requirements will be effective for all shipments of the subject merchandise entered, or withdrawn from warehouse,

for consumption on or after the publication date of the final results of this administrative review, as provided by section 751(a)(2)(C) of the Act: (1) the cash deposit rate for SMPC will be equal to the weighted-average dumping margin established in the final results of this administrative review, except if the rate is less than 0.50 percent and, therefore, *de minimis* within the meaning of 19 CFR 351.106(c)(1), in which case the cash deposit rate will be zero; (2) for previously reviewed or investigated companies not listed above, the cash deposit rate will continue to be the company-specific rate published for the most recently completed segment of this proceeding in which the company participated; (3) if the exporter is not a firm covered in this review, a prior review, or in the less-than-fair-value investigation (LTFV) but the producer is, the cash deposit rate will be the rate established for the most recently completed segment of this proceeding for the producer of the merchandise; and (4) the cash deposit rate for all other producers or exporters will continue to be the all-others rate of 10.77 percent, the rate established in the LTFV investigation of this proceeding.¹⁶ These cash deposit requirements, when imposed, shall remain in effect until further notice.

Notification to Importers

This notice also serves as a preliminary reminder to importers of their responsibility under 19 CFR 351.402(f)(2) to file a certificate regarding the reimbursement of antidumping duties prior to liquidation of the relevant entries during this review period. Failure to comply with this requirement could result in Commerce's presumption that reimbursement of antidumping duties occurred and the subsequent assessment of doubled antidumping duties.

Notification to Interested Parties

We are issuing and publishing these preliminary results of review in accordance with sections 751(a)(1) and 777(i) of the Act, and 19 CFR 351.213(h)(2) and 19 CFR 351.221(b)(4).

Dated: August 30, 2023.

Lisa W. Wang,

Assistant Secretary for Enforcement and Compliance.

Appendix

List of Topics Discussed in the Preliminary Decision Memorandum

- I. Summary
- II. Background
- III. Scope of the Order

¹⁶ See Order, 84 FR at 41704.

¹⁰ See, generally, 19 CFR 351.303.

¹¹ See *Temporary Rule*, 85 FR at 41363–41364.

¹² See Petitioner's Letter, "Steel Propane Cylinders from Thailand—Petitioner's Request for Verification," dated January 18, 2023.

¹³ See 19 CFR 351.106(c)(2); see also *Antidumping Proceeding: Calculation of the Weighted-Average Dumping Margin and Assessment Rate in Certain Antidumping Proceedings; Final Modification*, 77 FR 8101, 8103 (February 14, 2012).

¹⁴ See Order, 84 FR at 41704.

¹⁵ See *Antidumping and Countervailing Duty Proceedings: Assessment of Antidumping Duties*, 68 FR 23954 (May 6, 2003).

IV. Discussion of the Methodology
V. Currency Conversion
VI. Recommendation

[FR Doc. 2023–19202 Filed 9–5–23; 8:45 am]

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DEPARTMENT OF COMMERCE

International Trade Administration

Antidumping or Countervailing Duty Order, Finding, or Suspended Investigation; Opportunity To Request Administrative Review and Join Annual Inquiry Service List

AGENCY: Enforcement and Compliance, International Trade Administration, Department of Commerce.

FOR FURTHER INFORMATION CONTACT: Brenda E. Brown, Office of AD/CVD Operations, Customs Liaison Unit, Enforcement and Compliance, International Trade Administration, U.S. Department of Commerce, 1401 Constitution Avenue NW, Washington, DC 20230, telephone: (202) 482–4735.

SUPPLEMENTARY INFORMATION:

Background

Each year during the anniversary month of the publication of an antidumping or countervailing duty order, finding, or suspended investigation, an interested party, as defined in section 771(9) of the Tariff Act of 1930, as amended (the Act), may request, in accordance with 19 CFR 351.213, that the U.S. Department of Commerce (Commerce) conduct an administrative review of that antidumping or countervailing duty order, finding, or suspended investigation.

All deadlines for the submission of comments or actions by Commerce discussed below refer to the number of calendar days from the applicable starting date.

Respondent Selection

In the event Commerce limits the number of respondents for individual examination for administrative reviews initiated pursuant to requests made for the orders identified below, Commerce intends to select respondents based on U.S. Customs and Border Protection (CBP) data for U.S. imports during the period of review. We intend to release the CBP data under administrative protective order (APO) to all parties having an APO within five days of publication of the initiation notice and to make our decision regarding

respondent selection within 35 days of publication of the initiation **Federal Register** notice. Therefore, we encourage all parties interested in commenting on respondent selection to submit their APO applications on the date of publication of the initiation notice, or as soon thereafter as possible. Commerce invites comments regarding the CBP data and respondent selection within five days of placement of the CBP data on the record of the review.

In the event Commerce decides it is necessary to limit individual examination of respondents and conduct respondent selection under section 777A(c)(2) of the Act:

In general, Commerce finds that determinations concerning whether particular companies should be “collapsed” (*i.e.*, treated as a single entity for purposes of calculating antidumping duty rates) require a substantial amount of detailed information and analysis, which often require follow-up questions and analysis. Accordingly, Commerce will not conduct collapsing analyses at the respondent selection phase of a review and will not collapse companies at the respondent selection phase unless there has been a determination to collapse certain companies in a previous segment of this antidumping proceeding (*i.e.*, investigation, administrative review, new shipper review or changed circumstances review). For any company subject to a review, if Commerce determined, or continued to treat, that company as collapsed with others, Commerce will assume that such companies continue to operate in the same manner and will collapse them for respondent selection purposes.

Otherwise, Commerce will not collapse companies for purposes of respondent selection. *Parties are requested to:* (a) identify which companies subject to review previously were collapsed; and (b) provide a citation to the proceeding in which they were collapsed. Further, if companies are requested to complete a quantity and value questionnaire for purposes of respondent selection, in general each company must report volume and value data separately for itself. Parties should not include data for any other party, even if they believe they should be treated as a single entity with that other party. If a company was collapsed with another company or companies in the most recently completed segment of a proceeding where Commerce considered collapsing that entity, complete quantity and value

data for that collapsed entity must be submitted.

Deadline for Withdrawal of Request for Administrative Review

Pursuant to 19 CFR 351.213(d)(1), a party that requests a review may withdraw that request within 90 days of the date of publication of the notice of initiation of the requested review. The regulation provides that Commerce may extend this time if it is reasonable to do so. Determinations by Commerce to extend the 90-day deadline will be made on a case-by-case basis.

Deadline for Particular Market Situation Allegation

Section 504 of the Trade Preferences Extension Act of 2015 amended the Act by adding the concept of particular market situation (PMS) for purposes of constructed value under section 773(e) of the Act.¹ Section 773(e) of the Act states that “if a particular market situation exists such that the cost of materials and fabrication or other processing of any kind does not accurately reflect the cost of production in the ordinary course of trade, the administering authority may use another calculation methodology under this subtitle or any other calculation methodology.” When an interested party submits a PMS allegation pursuant to section 773(e) of the Act, Commerce will respond to such a submission consistent with 19 CFR 351.301(c)(2)(v). If Commerce finds that a PMS exists under section 773(e) of the Act, then it will modify its dumping calculations appropriately.

Neither section 773(e) of the Act nor 19 CFR 351.301(c)(2)(v) set a deadline for the submission of PMS allegations and supporting factual information. However, in order to administer section 773(e) of the Act, Commerce must receive PMS allegations and supporting factual information with enough time to consider the submission. Thus, should an interested party wish to submit a PMS allegation and supporting new factual information pursuant to section 773(e) of the Act, it must do so no later than 20 days after submission of initial Section D responses.

Opportunity To Request A Review: Not later than the last day of September 2023,² interested parties may request administrative review of the following orders, findings, or suspended investigations, with anniversary dates in September for the following periods:

¹ See Trade Preferences Extension Act of 2015, Public Law 114–27, 129 Stat. 362 (2015).

² Or the next business day, if the deadline falls on a weekend, federal holiday or any other day when Commerce is closed.

	Period
Antidumping Duty Proceedings	
Belarus: Steel Concrete Reinforcing Bars, A-822-804	9/1/22-8/31/23
Brazil: Emulsion Styrene-Butadiene Rubber, A-351-849	9/1/22-8/31/23
India: Cold-Rolled Steel Flat Products, A-533-865	9/1/22-8/31/23
India: Lined Paper Products, A-533-843	9/1/22-8/31/23
India: Oil Country Tubular Goods, A-533-857	9/1/22-8/31/23
Indonesia: Steel Concrete Reinforcing Bars, A-560-811	9/1/22-8/31/23
Japan: Methionine, A-588-879	9/1/22-8/31/23
Japan: Stainless Steel Wire Rod, A-588-843	9/1/22-8/31/23
Latvia: Stainless Concrete Reinforcing Bars, A-449-804	9/1/22-8/31/23
Mexico: Emulsion Styrene-Butadiene Rubber, A-201-848	9/1/22-8/31/23
Mexico: Heavy Walled Rectangular Welded Carbon Steel Pipes and Tubes, A-201-847	9/1/22-8/31/23
Mexico: Magnesia Carbon Bricks, A-201-837	9/1/22-8/31/23
Moldova: Steel Concrete Reinforcing Bars, A-841-804	9/1/22-8/31/23
Poland: Emulsion Styrene-Butadiene Rubber, A-455-805	9/1/22-8/31/23
Poland: Steel Concrete Reinforcing Bars, A-455-803	9/1/22-8/31/23
Republic of Korea: Cold-Rolled Steel Flat Products, A-580-881	9/1/22-8/31/23
Republic of Korea: Emulsion Styrene-Butadiene Rubber, A-580-890	9/1/22-8/31/23
Republic of Korea: Heavy Walled Rectangular Welded Carbon Steel Pipes and Tubes, A-580-880	9/1/22-8/31/23
Republic of Korea: Oil Country Tubular Goods, A-580-870	9/1/22-8/31/23
Republic of Korea: Polyethylene Terephthalate (PET) Sheet, A-580-903	9/1/22-8/31/23
Republic of Korea: Stainless Steel Wire Rod, A-580-829	9/1/22-8/31/23
Socialist Republic of Vietnam: Oil Country Tubular Goods, A-552-817	9/1/22-8/31/23
Spain: Methionine, A-469-822	9/1/22-8/31/23
Taiwan: Forged Steel Fittings, A-583-863	9/1/22-8/31/23
Taiwan: Narrow Woven Ribbons With Woven Selvedge, A-583-844	9/1/22-8/31/23
Taiwan: Raw Flexible Magnets, A-583-842	9/1/22-8/31/23
Taiwan: Stainless Steel Wire Rod, A-583-828	9/1/22-8/31/23
The People's Republic of China: Certain Magnesia Carbon Bricks, A-570-954	9/1/22-8/31/23
The People's Republic of China: Certain Steel Wheels 12 to 16.5 Inches in Diameter, A-570-090	9/1/22-8/31/23
The People's Republic of China: Foundry Coke, A-570-862	9/1/22-8/31/23
The People's Republic of China: Kitchen Appliance Shelving and Racks, A-570-941	9/1/22-8/31/23
The People's Republic of China: Lined Paper Products, A-570-901	9/1/22-8/31/23
The People's Republic of China: Narrow Woven Ribbons With Woven Selvedge, A-570-952	9/1/22-8/31/23
The People's Republic of China: Raw Flexible Magnets, A-570-922	9/1/22-8/31/23
The People's Republic of China: Steel Concrete Reinforcing Bars, A-570-860	9/1/22-8/31/23
The People's Republic of China: Steel Racks, A-570-088	9/1/22-8/31/23
Turkey: Heavy Walled Rectangular Welded Carbon Steel Pipes and Tubes, A-489-824	9/1/22-8/31/23
Turkey: Oil Country Tubular Goods, A-489-816	9/1/22-8/31/23
Ukraine: Steel Concrete Reinforcing Bars, A-823-809	9/1/22-8/31/23
United Kingdom: Cold-Rolled Steel Flat Products, A-412-824	9/1/22-8/31/23

Countervailing Duty Proceedings

Brazil: Cold-Rolled Steel Flat Products, C-351-844	1/1/22-12/31/22
India: Cold-Rolled Steel Flat Products, C-533-866	1/1/22-12/31/22
India: Lined Paper Products, C-533-844	1/1/22-12/31/22
India: Oil Country Tubular Goods, C-533-858	1/1/22-12/31/22
Republic of Korea: Cold-Rolled Steel Flat Products, C-580-882	1/1/22-12/31/22
The People's Republic of China: Certain Magnesia Carbon Bricks, C-570-955	1/1/22-12/31/22
The People's Republic of China: Certain Steel Wheels 12 to 16.5 Inches in Diameter, C-570-091	1/1/22-12/31/22
The People's Republic of China: Kitchen Appliance Shelving and Racks, C-570-942	1/1/22-12/31/22
The People's Republic of China: Narrow Woven Ribbons With Woven Selvedge, C-570-953	1/1/22-12/31/22
The People's Republic of China: Raw Flexible Magnets, C-570-923	1/1/22-12/31/22
The People's Republic of China: Steel Racks, C-570-089	1/1/22-12/31/22
Turkey: Heavy Walled Rectangular Welded Carbon Steel Pipes and Tubes, C-489-825	1/1/22-12/31/22
Turkey: Oil Country Tubular Goods, C-489-817	1/1/22-12/31/22

Suspension Agreements

MEXICO: Fresh Tomatoes, A-201-820	1/1/22-12/31/22

In accordance with 19 CFR 351.213(b), an interested party as defined by section 771(9) of the Act may request in writing that the Secretary conduct an administrative review. For both antidumping and countervailing duty reviews, the interested party must

specify the individual producers or exporters covered by an antidumping finding or an antidumping or countervailing duty order or suspension agreement for which it is requesting a review. In addition, a domestic interested party or an interested party

described in section 771(9)(B) of the Act must state why it desires the Secretary to review those particular producers or exporters. If the interested party intends for the Secretary to review sales of merchandise by an exporter (or a producer if that producer also exports

merchandise from other suppliers) which was produced in more than one country of origin and each country of origin is subject to a separate order, then the interested party must state specifically, on an order-by-order basis, which exporter(s) the request is intended to cover.

Note that, for any party Commerce was unable to locate in prior segments, Commerce will not accept a request for an administrative review of that party absent new information as to the party's location. Moreover, if the interested party who files a request for review is unable to locate the producer or exporter for which it requested the review, the interested party must provide an explanation of the attempts it made to locate the producer or exporter at the same time it files its request for review, in order for the Secretary to determine if the interested party's attempts were reasonable, pursuant to 19 CFR 351.303(f)(3)(ii).

As explained in *Antidumping and Countervailing Duty Proceedings: Assessment of Antidumping Duties*, 68 FR 23954 (May 6, 2003), and *Non-Market Economy Antidumping Proceedings: Assessment of Antidumping Duties*, 76 FR 65694 (October 24, 2011), Commerce clarified its practice with respect to the collection of final antidumping duties on imports of merchandise where intermediate firms are involved. The public should be aware of this clarification in determining whether to request an administrative review of merchandise subject to antidumping findings and orders.³

Commerce no longer considers the non-market economy (NME) entity as an exporter conditionally subject to an antidumping duty administrative reviews.⁴ Accordingly, the NME entity will not be under review unless Commerce specifically receives a request for, or self-initiates, a review of the NME entity.⁵ In administrative reviews of antidumping duty orders on merchandise from NME countries where a review of the NME entity has not been initiated, but where an individual exporter for which a review was

initiated does not qualify for a separate rate, Commerce will issue a final decision indicating that the company in question is part of the NME entity. However, in that situation, because no review of the NME entity was conducted, the NME entity's entries were not subject to the review and the rate for the NME entity is not subject to change as a result of that review (although the rate for the individual exporter may change as a function of the finding that the exporter is part of the NME entity). Following initiation of an antidumping administrative review when there is no review requested of the NME entity, Commerce will instruct CBP to liquidate entries for all exporters not named in the initiation notice, including those that were suspended at the NME entity rate.

All requests must be filed electronically in Enforcement and Compliance's Antidumping and Countervailing Duty Centralized Electronic Service System (ACCESS) on Enforcement and Compliance's ACCESS website at <https://access.trade.gov>.⁶ Further, in accordance with 19 CFR 351.303(f)(1)(i), a copy of each request must be served on the petitioner and each exporter or producer specified in the request. Note that Commerce has temporarily modified certain of its requirements for serving documents containing business proprietary information, until further notice.⁷

Commerce will publish in the **Federal Register** a notice of "Initiation of Administrative Review of Antidumping or Countervailing Duty Order, Finding, or Suspended Investigation" for requests received by the last day of September 2023. If Commerce does not receive, by the last day of September 2023, a request for review of entries covered by an order, finding, or suspended investigation listed in this notice and for the period identified above, Commerce will instruct CBP to assess antidumping or countervailing duties on those entries at a rate equal to the cash deposit of estimated antidumping or countervailing duties required on those entries at the time of entry, or withdrawal from warehouse, for consumption and to continue to collect the cash deposit previously ordered.

For the first administrative review of any order, there will be no assessment of antidumping or countervailing duties

on entries of subject merchandise entered, or withdrawn from warehouse, for consumption during the relevant provisional-measures "gap" period of the order, if such a gap period is applicable to the period of review.

Establishment of and Updates to the Annual Inquiry Service List

On September 20, 2021, Commerce published the final rule titled "*Regulations to Improve Administration and Enforcement of Antidumping and Countervailing Duty Laws*" in the **Federal Register**.⁸ On September 27, 2021, Commerce also published the notice entitled "*Scope Ruling Application; Annual Inquiry Service List; and Informational Sessions*" in the **Federal Register**.⁹ The *Final Rule* and *Procedural Guidance* provide that Commerce will maintain an annual inquiry service list for each order or suspended investigation, and any interested party submitting a scope ruling application or request for circumvention inquiry shall serve a copy of the application or request on the persons on the annual inquiry service list for that order, as well as any companion order covering the same merchandise from the same country of origin.¹⁰

In accordance with the *Procedural Guidance*, for orders published in the **Federal Register** before November 4, 2021, Commerce created an annual inquiry service list segment for each order and suspended investigation. Interested parties who wished to be added to the annual inquiry service list for an order submitted an entry of appearance to the annual inquiry service list segment for the order in ACCESS, and on November 4, 2021, Commerce finalized the initial annual inquiry service lists for each order and suspended investigation. Each annual inquiry service list has been saved as a public service list in ACCESS, under each case number, and under a specific segment type called "AISL-Annual Inquiry Service List."¹¹

⁸ See *Regulations to Improve Administration and Enforcement of Antidumping and Countervailing Duty Laws*, 86 FR 52300 (September 20, 2021) (*Final Rule*).

⁹ See *Scope Ruling Application; Annual Inquiry Service List; and Informational Sessions*, 86 FR 53205 (September 27, 2021) (*Procedural Guidance*).

¹⁰ *Id.*

¹¹ This segment has been combined with the ACCESS Segment Specific Information (SSI) field which will display the month in which the notice of the order or suspended investigation was published in the **Federal Register**, also known as the anniversary month. For example, for an order under case number A-000-000 that was published in the **Federal Register** in January, the relevant segment and SSI combination will appear in

³ See the Enforcement and Compliance website at <https://www.trade.gov/us-antidumping-and-countervailing-duties>.

⁴ See *Antidumping Proceedings: Announcement of Change in Department Practice for Respondent Selection in Antidumping Duty Proceedings and Conditional Review of the Nonmarket Economy Entity in NME Antidumping Duty Proceedings*, 78 FR 65963 (November 4, 2013).

⁵ In accordance with 19 CFR 351.213(b)(1), parties should specify that they are requesting a review of entries from exporters comprising the entity, and to the extent possible, include the names of such exporters in their request.

⁶ See *Antidumping and Countervailing Duty Proceedings: Electronic Filing Procedures; Administrative Protective Order Procedures*, 76 FR 39263 (July 6, 2011).

⁷ See *Temporary Rule Modifying AD/CVD Service Requirements Due to COVID-19; Extension of Effective Period*, 85 FR 41363 (July 10, 2020).

As mentioned in the *Procedural Guidance*, beginning in January 2022, Commerce will update these annual inquiry service lists on an annual basis when the *Opportunity Notice* for the anniversary month of the order or suspended investigation is published in the **Federal Register**.¹² Accordingly, Commerce will update the annual inquiry service lists for the above-listed antidumping and countervailing duty proceedings. All interested parties wishing to appear on the updated annual inquiry service list must take one of the two following actions: (1) new interested parties who did not previously submit an entry of appearance must submit a new entry of appearance at this time; or (2) interested parties who were included in the preceding annual inquiry service list must submit an amended entry of appearance to be included in the next year's annual inquiry service list. For these interested parties, Commerce will change the entry of appearance status from "Active" to "Needs Amendment" for the annual inquiry service lists corresponding to the above-listed proceedings. This will allow those interested parties to make any necessary amendments and resubmit their entries of appearance. If no amendments need to be made, the interested party should indicate in the area on the ACCESS form requesting an explanation for the amendment that it is resubmitting its entry of appearance for inclusion in the annual inquiry service list for the following year. As mentioned in the *Final Rule*,¹³ once the petitioners and foreign governments have submitted an entry of appearance for the first time, they will automatically be added to the updated annual inquiry service list each year.

Interested parties have 30 days after the date of this notice to submit new or amended entries of appearance. Commerce will then finalize the annual inquiry service lists five business days thereafter. For ease of administration, please note that Commerce requests that law firms with more than one attorney representing interested parties in a proceeding designate a lead attorney to be included on the annual inquiry service list.

Commerce may update an annual inquiry service list at any time as needed based on interested parties' amendments to their entries of appearance to remove or otherwise

ACCESS as "AISL-January Anniversary." Note that there will be only one annual inquiry service list segment per case number, and the anniversary month will be pre-populated in ACCESS.

¹² See *Procedural Guidance*, 86 FR at 53206.

¹³ See *Final Rule*, 86 FR at 52335.

modify their list of members and representatives, or to update contact information. Any changes or announcements pertaining to these procedures will be posted to the ACCESS website at <https://access.trade.gov>.

Special Instructions for Petitioners and Foreign Governments

In the *Final Rule*, Commerce stated that, "after an initial request and placement on the annual inquiry service list, both petitioners and foreign governments will automatically be placed on the annual inquiry service list in the years that follow."¹⁴ Accordingly, as stated above and pursuant to 19 CFR 351.225(n)(3), the petitioners and foreign governments will not need to resubmit their entries of appearance each year to continue to be included on the annual inquiry service list. However, the petitioners and foreign governments are responsible for making amendments to their entries of appearance during the annual update to the annual inquiry service list in accordance with the procedures described above.

This notice is not required by statute but is published as a service to the international trading community.

Dated: August 23, 2023.

James Maeder,

Deputy Assistant Secretary for Antidumping and Countervailing Duty Operations.

[FR Doc. 2023-19124 Filed 9-5-23; 8:45 am]

BILLING CODE 3510-DS-P

DEPARTMENT OF COMMERCE

International Trade Administration

[A-570-028]

Hydrofluorocarbon Blends From the People's Republic of China: Preliminary Results of Antidumping Duty Administrative Review; 2021-2022

AGENCY: Enforcement and Compliance, International Trade Administration, Department of Commerce.

SUMMARY: The U.S. Department of Commerce (Commerce) preliminarily determines that the sole mandatory respondent under review did not make sales of Hydrofluorocarbon Blends (HFC blends) from the People's Republic of China (China) at less than normal value (NV) during the period of review (POR), August 31, 2021, through July 31, 2022. Interested parties are invited to comment on these preliminary results.

¹⁴ *Id.*

DATES: Applicable September 6, 2023.

FOR FURTHER INFORMATION CONTACT: Alex Wood, AD/CVD Operations, Office II, Enforcement and Compliance, International Trade Administration, U.S. Department of Commerce, 1401 Constitution Avenue NW, Washington, DC 20230; telephone: (202) 482-1959.

SUPPLEMENTARY INFORMATION:

Background

On August 19, 2016, Commerce published the antidumping duty (AD) order on HFC blends from China.¹ On August 2, 2022, Commerce published a notice of opportunity to request an administrative review of the *Order*, covering the POR, pursuant to section 751(a)(1) of the Tariff Act of 1930, as amended (the Act).² On October 11, 2022, based on timely requests for review from American HFC Coalition and Zhejiang Sanmei Chemical Industry Co., Ltd. (Sanmei),³ Commerce initiated an administrative review of the *Order* covering the POR.⁴ The administrative review covers 17 companies,⁵ including the mandatory respondent, Sanmei. On April 10, 2023, Commerce extended the deadline for the preliminary results of this review to no later than August 31, 2023.⁶

Scope of the Order

The products covered by the *Order* are shipments of HFC blends from China. For a full description of the scope of the *Order*, see the Preliminary Decision Memorandum.⁷

Separate Rate

Commerce preliminarily determines that one respondent, Sanmei, the only company individually examined in this

¹ See *Hydrofluorocarbon Blends from the People's Republic of China: Antidumping Duty Order*, 81 FR 55436 (August 19, 2016) (*Order*).

² See *Antidumping or Countervailing Duty Order, Finding, or Suspended Investigation; Opportunity to Request Administrative Review and Join Annual Inquiry Service List*, 87 FR 47187 (August 2, 2022).

³ See HFC Coalition's Letter, "Request for Administrative Review," dated August 31, 2022; see also Sanmei's Letter, "Request for Administrative Review," dated August 31, 2022.

⁴ See *Initiation of Antidumping and Countervailing Duty Administrative Reviews*, 87 FR 61278 (October 11, 2022) (*Initiation Notice*).

⁵ The *Initiation Notice* listed 18 companies. However, Zhejiang Sanmei Chemical Ind. Co., Ltd. is the same company as Zhejiang Sanmei Chemical Industry Co., Ltd.

⁶ See Memorandum, "Extension of Deadline for Preliminary Results of 2021-2022 Antidumping Duty Administrative Review," dated April 10, 2023.

⁷ See Memorandum, "Decision Memorandum for the Preliminary Results of the 2021-2022 Antidumping Duty Administrative Review of Hydrofluorocarbon Blends from the People's Republic of China," dated concurrently with, and hereby adopted by, this notice (Preliminary Decision Memorandum).

review, is eligible to receive a separate rate in this review.⁸

China-Wide Entity

Under Commerce's policy regarding the conditional review of the China-wide entity,⁹ the China-wide entity will not be under review unless a party specifically requests, or Commerce self-initiates, a review of the entity. Because no party requested a review of the China-wide entity in this review, the entity is not under review, and the entity's rate (*i.e.*, 216.37 percent) is not subject to change.¹⁰ Commerce considers the 16 companies for which a review was requested (which did not file a separate rate application or did not demonstrate separate rate eligibility) listed in Appendix II to this notice, to be part of the China-wide entity.¹¹

Methodology

Commerce is conducting this review in accordance with section 751(a)(1)(B) of the Act. We calculated export price in accordance with section 772 of the Act. Because China is an NME country within the meaning of section 771(18) of the Act, we calculated normal value in accordance with section 773(c) of the Act.

For a full description of the methodology underlying our preliminary results, *see* the Preliminary Decision Memorandum.¹² A list of topics discussed in the Preliminary Decision Memorandum is included as Appendix I to this notice. The Preliminary Decision Memorandum is a public document and is on file electronically via Enforcement and Compliance's Antidumping and Countervailing Duty Centralized Electronic Service System (ACCESS). ACCESS is available to registered users at <https://access.trade.gov>. In addition, a complete version of the Preliminary Decision Memorandum can be found at <https://access.trade.gov/public/FRNoticesListLayout.aspx>.

⁸ *Id.* at "Separate Rates" section.

⁹ *See Antidumping Proceedings: Announcement of Change in Department Practice for Respondent Selection in Antidumping Duty Proceedings and Conditional Review of the Nonmarket Economy Entity in NME Antidumping Duty Proceedings*, 78 FR 65963 (November 4, 2013).

¹⁰ *See Order*.

¹¹ *See Initiation Notice* ("All firms listed below that wish to qualify for separate rate status in the administrative reviews involving NME countries must complete, as appropriate, either a separate rate application or certification, as described below."), 87 FR at 61285; *see also* Appendix II, *infra*, for the list of companies that are subject to this administrative review that are considered to be part of the China-wide entity.

¹² *See Preliminary Decision Memorandum* at "Discussion of the Methodology."

Preliminary Results of Review

Commerce preliminarily determines that the following weighted-average dumping margin exists for the period August 31, 2021, through July 31, 2022:

Exporter	Weighted-average dumping margin (percent)
Sanmei Chemical Industry Co., Ltd	0.00

Disclosure

Commerce intends to disclose the calculations performed in connection with these preliminary results to interested parties within five days after the date of publication of this notice.¹³

Public Comment

Case briefs or other written comments may be submitted to Commerce no later than 30 days after the date of publication of this notice.¹⁴ Rebuttal briefs, limited to issues raised in the case briefs, may be filed no later than seven days after the time limit for filing case briefs.¹⁵ Parties who submit case briefs or rebuttal briefs in this proceeding are encouraged to submit with each argument: (1) a statement of the issue; (2) a brief summary of the argument; and (3) a table of authorities.¹⁶ Case and rebuttal briefs should be filed using ACCESS.¹⁷ Note that Commerce has temporarily modified certain of its requirements for serving documents containing business proprietary information, until further notice.¹⁸

Pursuant to 19 CFR 351.310(c), interested parties who wish to request a hearing, limited to issues raised in the case and rebuttal briefs, must submit a written request to the Assistant Secretary for Enforcement and Compliance, U.S. Department of Commerce, filed electronically via ACCESS within 30 days after the date of publication of this notice.¹⁹ Hearing requests should contain: (1) the party's name, address, and telephone number; (2) the number of participants; and (3) a list of issues to be discussed. Issues raised in the hearing will be limited to issues raised in the briefs. If a request

for a hearing is made, Commerce intends to hold the hearing at a date and time to be determined.²⁰ Parties should confirm by telephone the date and time of the hearing two days before the scheduled date. An electronically filed document must be received successfully in its entirety by ACCESS by 5:00 p.m. Eastern Time on the established deadline.

Unless the deadline is extended, Commerce intends to issue the final results of this administrative review, including the results of its analysis of issues raised in any written briefs, not later than 120 days after the date of publication of this notice.²¹

Assessment Rates

Upon completion of the final results, Commerce shall determine, and U.S. Customs and Border Protection (CBP) shall assess, antidumping duties on all appropriate entries covered by this review.²² If the preliminary results are unchanged for the final results, we will instruct CBP to apply an *ad valorem* assessment rate of 216.37 percent to all entries of subject merchandise during the POR which were exported by the companies considered to be a part of the China-wide entity listed in Appendix II of this notice.

If the individually examined respondent's weighted-average dumping margin is above *de minimis* (*i.e.*, 0.50 percent) in the final results of this review, we will calculate an importer-specific assessment rate on the basis of the ratio of the total amount of dumping calculated for each importer's examined sales and, where possible, the total entered value of those same sales in accordance with 19 CFR 351.212(b)(1).²³ Where an importer- (or customer-) specific *ad valorem* rate is zero or *de minimis*, we will instruct CBP to liquidate appropriate entries without regard to antidumping duties.²⁴

For entries that were not reported in the U.S. sales database submitted by exporter individually examined during this review, Commerce will instruct CBP to liquidate such entries at the China-wide rate.²⁵

²⁰ *See* 19 CFR 351.310(d).

²¹ *See* section 751(a)(3)(A) of the Act and 19 CFR 351.213(h).

²² *See* 19 CFR 351.212(b)(1).

²³ *See Antidumping Proceedings: Calculation of the Weighted-Average Dumping Margin and Assessment Rate in Certain Antidumping Proceedings: Final Modification*, 77 FR 8101, 8103 (February 14, 2012).

²⁴ *See* 19 CFR 351.106(c)(2).

²⁵ For a full discussion of this practice, *see Non-Market Economy Antidumping Proceedings: Assessment of Antidumping Duties*, 76 FR 65694 (October 24, 2011).

¹³ *See* 19 CFR 351.224(b).

¹⁴ *See* 19 CFR 351.309(c).

¹⁵ *See* 19 CFR 351.309(c); *see also Temporary Rule Modifying AD/CVD Service Requirements Due to COVID-19; Extension of Effective Period*, 85 FR 41363 (July 10, 2020) (*Temporary Rule*).

¹⁶ *See* 19 CFR 351.309(c)(2) and (d)(2).

¹⁷ *See* 19 CFR 351.303.

¹⁸ *See Temporary Rule*.

¹⁹ *See* 19 CFR 351.310(c).

Commerce intends to issue assessment instructions to CBP no earlier than 35 days after date of publication of the final results of this review in the **Federal Register**. If a timely summons is filed at the U.S. Court of International Trade, the assessment instructions will direct CBP not to liquidate relevant entries until the time for parties to file a request for a statutory injunction has expired (*i.e.*, within 90 days of publication).

Cash Deposit Requirements

The following cash deposit requirements will be effective upon publication of the final results of this administrative review for all shipments of the subject merchandise entered, or withdrawn from warehouse, for consumption on or after the publication date, as provided for by section 751(a)(2)(C) of the Act: (1) for the subject merchandise exported by the company listed above that has a separate rate, the cash deposit rate will be equal to the weighted-average dumping margin established in the final results of this administrative review (except, if the rate is zero or *de minimis*, then zero cash deposit will be required); (2) for previously investigated or reviewed Chinese and non-Chinese exporters not listed above that received a separate rate in a prior segment of this proceeding, the cash deposit rate will continue to be the existing exporter-specific rate; (3) for all Chinese exporters of subject merchandise that have not been found to be entitled to a separate rate, the cash deposit rate will be that for the China-wide entity; and (4) for all non-Chinese exporters of subject merchandise which have not received their own rate, the cash deposit rate will be the rate applicable to the Chinese exporter that supplied that non-Chinese exporter. These deposit requirements, when imposed, shall remain in effect until further notice. These deposit requirements, when imposed, shall remain in effect until further notice.

Notification to Importers

This notice also serves as a preliminary reminder to importers of their responsibility under 19 CFR 351.402(f) to file a certificate regarding the reimbursement of antidumping duties prior to liquidation of the relevant entries during this review period. Failure to comply with this requirement could result in Commerce's presumption that reimbursement of antidumping duties occurred and the subsequent assessment of double antidumping duties.

Notification to Interested Parties

We are issuing and publishing these preliminary results of review in accordance with sections 751(a)(1) and 777(i)(1) of the Act, and 19 CFR 351.221(b)(4).

Dated: August 29, 2023.

Lisa W. Wang,

Assistant Secretary for Enforcement and Compliance.

Appendix I—List of Topics Discussed in the Preliminary Decision Memorandum

- I. Summary
- II. Background
- III. Scope of the *Order*
- IV. Discussion of the Methodology
- V. Currency Conversion
- VI. Recommendation

Appendix II—Companies Considered To Be Part of the China-Wide Entity

1. Changzhou Vista Chemical Co., Ltd.
2. Daikin Fluorochemicals (China) Co., Ltd.
3. Dongyang Weihua Refrigerants Co., Ltd.
4. Hangzhou Icetop Refrigeration Co., Ltd.
5. Jiangsu Sanmei Chemicals Co., Ltd.
6. Oasis Chemical Co., Limited
7. Sinochem Environmental Protection Chemicals (Taicang) Co., Ltd.
8. Superfy Industrial Limited
9. Tianjin Synergy Gases Products, Co., Ltd.
10. Weitron International Refrigeration Equipment (Kunshan) Co., Ltd.
11. Weitron International Refrigeration Equipment Co., Ltd.
12. Yangfar Industry Co., Ltd
13. Zhejiang Lantian Environmental Protection Fluoro Material Co. Ltd
14. Zhejiang Quzhou Lianzhou Refrigerants Co., Ltd
15. Zhejiang Yonghe Refrigerant Co., Ltd
16. Zhejiang Zhonglan Refrigeration Technology Co., Ltd

[FR Doc. 2023–19120 Filed 9–5–23; 8:45 am]

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DEPARTMENT OF COMMERCE

International Trade Administration

[C–533–874]

Certain Cold-Drawn Mechanical Tubing of Carbon and Alloy Steel From India: Final Results of Countervailing Duty Administrative Review; 2021

AGENCY: Enforcement and Compliance, International Trade Administration, U.S. Department of Commerce.

SUMMARY: The U.S. Department of Commerce (Commerce) determines that countervailable subsidies are being provided to producers and exporters of certain cold-drawn mechanical tubing of carbon and alloy steel (cold-drawn mechanical tubing) from India during the period of review, January 1, 2021, through December 31, 2021.

DATES: Applicable September 6, 2023.

FOR FURTHER INFORMATION CONTACT:

Eliza DeLong or Eric Hawkins, AD/CVD Operations, Office V, Enforcement and Compliance, International Trade Administration, U.S. Department of Commerce, 1401 Constitution Avenue NW, Washington, DC 20230; telephone: (202) 482–3878 or (202) 482–1988, respectively.

SUPPLEMENTARY INFORMATION:

Background

Commerce published the *Preliminary Results* of this review on March 7, 2023.¹ We invited interested parties to comment on the *Preliminary Results*.² On May 30, 2023, Commerce extended the deadline for the final results of this review until September 1, 2023.³ For a complete description of the events that occurred since the *Preliminary Results*, see the Issues and Decision Memorandum.⁴

Scope of the Order⁵

The merchandise covered by the *Order* is cold-drawn mechanical tubing from India. For a complete description of the scope of the *Order*, see the Issues and Decision Memorandum.

Analysis of Comments Received

All issues raised in interested parties' briefs are addressed in the Issues and Decision Memorandum. A list of the issues raised by interested parties, to which we responded in the Issues and Decision Memorandum, is provided as an appendix to this notice. The Issues and Decision Memorandum is a public document and is on file electronically via Enforcement and Compliance's Antidumping and Countervailing Duty Centralized Electronic Service System (ACCESS). ACCESS is available to registered users at <https://access.trade.gov>. In addition, a complete

¹ See *Certain Cold-Drawn Mechanical Tubing of Carbon and Alloy Steel from India: Preliminary Results of Countervailing Duty Administrative Review*; 2021, 88 FR 14143 (March 7, 2023) (*Preliminary Results*), and accompanying Preliminary Decision Memorandum.

² *Id.*, 88 FR at 14143.

³ See Memorandum, "Extension of Deadline for Final Results of Countervailing Duty Administrative Review, 2021," dated May 30, 2023.

⁴ See Memorandum, "Issues and Decision Memorandum for the Final Results of Countervailing Duty Administrative Review: Certain Cold-Drawn Mechanical Tubing of Carbon and Alloy Steel from India; 2021," dated concurrently with, and hereby adopted by, this notice (Issues and Decision Memorandum).

⁵ See *Certain Cold-Drawn Mechanical Tubing of Carbon and Alloy Steel from the People's Republic of China and India: Countervailing Duty Orders*, 83 FR 4637 (February 1, 2018) (*Order*); see also *Certain Cold-Drawn Mechanical Tubing of Carbon and Alloy Steel from the People's Republic of China and India: Countervailing Duty Orders; Correction*, 86 FR 30595 (June 9, 2021).

version of the Issues and Decision Memorandum can be accessed directly at <https://access.trade.gov/public/FRNoticesListLayout.aspx>.

Changes Since the Preliminary Results

Based on a review of the record and comments received from interested parties regarding our *Preliminary Results*, and for the reasons explained in the Issues and Decision Memorandum, we made certain changes for these final results of review.

Methodology

Commerce conducted this review in accordance with section 751(a)(1)(A) of the Tariff Act of 1930, as amended (the Act). For each of the subsidy programs found countervailable, we find that there is a subsidy, *i.e.*, a financial contribution from a government or public entity that gives rise to a benefit to the recipient, and the subsidy is specific.⁶ For a full description of the methodology underlying our conclusions, including any determination that relied upon the use of adverse facts available pursuant to section 776(a) and (b) of the Act, *see* the Issues and Decision Memorandum.

Companies Not Selected for Individual Review

We made no changes to the methodology for determining a rate for companies not selected for individual examination from the *Preliminary Results*. However, due to changes in calculations for Goodluck India Limited, the non-selected rate changed for each of the non-selected companies for which a review was requested and not rescinded, and which were not selected as mandatory respondents.⁷

Final Results of Review

We determine the total estimated net countervailable subsidy rates for the period January 1, 2021, through December 31, 2021, to be as follows:

Producer/exporter	Subsidy rate (percent <i>ad valorem</i>)
Goodluck India Limited ⁸	3.39
Tube Investments of India Ltd ⁹	3.97

⁶ See sections 771(5)(B) and (D) of the Act regarding financial contribution; section 771(5)(E) of the Act regarding benefit; and section 771(5A) of the Act regarding specificity.

⁷ See Memorandum, "Calculation of Subsidy Rate for Non-Selected Companies Under Review," dated concurrently with this notice.

Producer/exporter	Subsidy rate (percent <i>ad valorem</i>)
Review-Specific Average Rate Applicable to the Following	
Lal Baba Seamless Tubes Pvt. Ltd	3.74
Metamorphosis Engitech India Pvt. Ltd	3.74

Disclosure

Commerce will disclose to interested parties the calculations performed for these final results within five days of public announcement or, if there is no public announcement, within five days of the date of publication of the notice of final results in the **Federal Register**, in accordance with 19 CFR 351.224(b).

Assessment Rate

Consistent with section 751(a)(2)(C) of the Act, upon issuance of the final results, Commerce shall determine, and U.S. Customs and Border Protection (CBP) shall assess, countervailing duties on all appropriate entries covered by this review. Commerce intends to issue appropriate assessment instructions to CBP no earlier than 35 days after publication of these final results. If a timely summons is filed at the U.S. Court of International Trade, the assessment instructions will direct CBP not to liquidate relevant entries until the time for parties to file a request for a statutory injunction has expired (*i.e.*, within 90 days of publication).

Cash Deposit Requirements

Pursuant to section 751(a)(1) of the Act, Commerce intends to instruct CBP to collect cash deposits of estimated countervailing duties in the amounts indicated above with regard to shipments of subject merchandise entered, or withdrawn from warehouse, for consumption on or after the date of publication of the final results of this review. For all non-reviewed firms, CBP will continue to collect cash deposits of estimated countervailing duties at the most recent company-specific or all-others rate applicable to the company, as appropriate. These cash deposit instructions, when imposed, shall remain in effect until further notice.

Administrative Protective Order

This notice also serves as a final reminder to parties subject to an

administrative protective order (APO) of their responsibility concerning the return or destruction of proprietary information disclosed under APO in accordance with 19 CFR 351.305(a)(3), which continues to govern business proprietary information in this segment of proceeding. Timely written notification of the return/destruction of APO materials or conversion to judicial protective order is hereby requested. Failure to comply with the regulations and terms of an APO is a violation which is subject to sanction.

Notification to Interested Parties

These final results are issued and published in accordance with sections 751(a)(1) and 777(i)(1) of the Act and 19 CFR 351.221(b)(5).

Dated: August 29, 2023.

Lisa W. Wang,

Assistant Secretary for Enforcement and Compliance.

Appendix

List of Topics Discussed in the Issues and Decision Memorandum

- I. Summary
- II. Background
- III. Scope of the Order
- IV. Changes Since the *Preliminary Results*
- V. Subsidies Valuation Information
- VI. Use of Facts Otherwise Available and Application of Adverse Inferences
- VII. Analysis of Programs
- VIII. Discussion of the Issues
 - Comment 1: Whether to Apply Adverse Facts Available to the Government of India or Otherwise Revisit Prior Financial Contribution and Specificity Determinations
 - Comment 2: Steel Inputs Purchased from Steel Authority of India Ltd.
 - Comment 3: Whether to Correct Certain Calculation Errors for Goodluck
 - Comment 4: Whether to Countervail Benefits from Special Economic Zone Programs
- IX. Recommendation

[FR Doc. 2023–19125 Filed 9–5–23; 8:45 am]

BILLING CODE 3510-DS-P

DEPARTMENT OF COMMERCE

International Trade Administration

[A–580–902]

Utility Scale Wind Towers From the Republic of Korea: Preliminary Results of Antidumping Duty Administrative Review and Preliminary Determination of No Shipments; 2021–2022

AGENCY: Enforcement and Compliance, International Trade Administration, Department of Commerce.

SUMMARY: The U.S. Department of Commerce (Commerce) preliminarily

⁸ Entries for Goodluck India Limited may have been made under the following company names: Goodluck India Limited (formerly Good Luck Steel Tubes Limited); Good Luck Steel Tubes Limited Good Luck House; and Good Luck Industries.

⁹ Tube Investments of India Ltd. is also known as Tube Investments of India Limited.

determines that sales of utility scale wind towers (wind towers) from the Republic of Korea (Korea) were made at less than normal value (NV) during the period of review (POR) August 1, 2021, through July 31, 2022. We also preliminarily determine that two companies had no shipments. Interested parties are invited to comment on these preliminary results.

DATES: Applicable September 6, 2023.

FOR FURTHER INFORMATION CONTACT: Adam Simons, AD/CVD Operations, Office IX, Enforcement and Compliance, International Trade Administration, U.S. Department of Commerce, 1401 Constitution Avenue NW, Washington, DC 20230; telephone: (202) 482-6172.

SUPPLEMENTARY INFORMATION:

Background

On October 11, 2022, based on timely requests for review, in accordance with 19 CFR 351.221(c)(1)(i), we initiated an administrative review of the antidumping duty order¹ on wind towers from Korea.² This review covers 15 producers/exporters of the subject merchandise. In April 2023, we extended the deadline for issuing the preliminary results of this review to no later than August 31, 2023.³ For a complete description of the events that followed the initiation of this review, see the Preliminary Decision Memorandum.⁴

Scope of the Order

The merchandise subject to the *Order* is wind towers.⁵ The product is currently classified in the Harmonized Tariff Schedule of the United States (HTSUS) under subheading 7308.20.0020 or 8502.31.0000 and may also be classified under HTSUS subheading 7308.20.0020 or 8502.31.0000. While the HTSUS subheadings are provided for convenience and customs purposes, the written product description remains dispositive.

Preliminary Determination of No Shipments

On October 28 and November 10, 2022, respectively, we received letters from Hyosung Heavy Industries Corporation (Hyosung) and CS Wind Corporation (CS Wind), timely notifying Commerce that they had no exports, sales, or entries of subject merchandise during the POR.⁶ Based on their certifications and our analysis of U.S. Customs and Border Protection (CBP) information, we preliminarily determine that CS Wind and Hyosung had no shipments during the POR. Consistent with our practice, we are not rescinding the review with respect to CS Wind and Hyosung. Instead, we will complete the review and issue appropriate instructions to CBP based on the final results of this review.⁷

Methodology

Commerce is conducting this review in accordance with section 751(a) of the Tariff Act of 1930, as amended (the Act). Export price is calculated in accordance with section 772 of the Act. NV is calculated in accordance with section 773 of the Act. For a full description of the methodology underlying our conclusions, see the Preliminary Decision Memorandum. The Preliminary Decision Memorandum is a public document and is on file electronically via Enforcement and Compliance's Antidumping and Countervailing Duty Centralized Electronic Service System (ACCESS). ACCESS is available to registered users at <https://access.trade.gov>. In addition, a complete version of the Preliminary Decision Memorandum can be accessed directly at <https://access.trade.gov/public/FRNoticesListLayout.aspx>. A list of the topics discussed in the Preliminary Decision Memorandum is attached in Appendix I of this notice.

Preliminary Results of Review

As a result of this review, we preliminarily determine the following estimated weighted-average dumping margin for the period August 1, 2021, through July 31, 2022:

Producer/exporter	Weighted-average dumping margin (percent)
Dongkuk S&C Co., Ltd	1.95
Companies Not Selected for Individual Review	1.95

Rate for Companies Not Selected for Individual Examination

The Act and Commerce's regulations do not address the establishment of a weighted-average dumping margin to be applied to companies not selected for individual examination when Commerce limits its examination in an administrative review pursuant to section 777A(c)(2) of the Act. Generally, Commerce looks to section 735(c)(5) of the Act, which provides instructions for calculating the all-others rate in a less-than-fair-value (LTFV) investigation, for guidance when calculating the weighted-average dumping margin for companies which were not selected for individual examination in an administrative review. Under section 735(c)(5)(A) of the Act, the all-others rate is normally equal to the weighted average of the estimated weighted-average dumping margins established for exporters and producers individually examined, excluding rates that are zero, *de minimis* (i.e., less than 0.5 percent), or determined entirely on the basis of facts available.

For these preliminary results, we have preliminarily assigned a dumping margin to these companies based on the rate calculated for Dongkuk S&C Co., Ltd. (Dongkuk). The companies not selected for individual review are listed in Appendix II.

Disclosure and Public Comment

Commerce intends to disclose the calculations performed in connection with these preliminary results to interested parties within five days after the date of publication of this notice in the **Federal Register**.⁸ Interested parties may submit case briefs or other written comments to Commerce no later than 30 days after the date of publication of this notice.⁹ Rebuttal briefs, limited to issues raised in the case briefs, may be filed no later than seven days after the time limit

¹ See *Utility Scale Wind Towers from Canada, Indonesia, the Republic of Korea, and the Socialist Republic of Vietnam: Antidumping Duty Orders*, 85 FR 52546, 52547 (August 26, 2020) (*Order*).

² See *Initiation of Antidumping and Countervailing Duty Administrative Reviews*, 87 FR 61278 (October 11, 2022).

³ See Memorandum, "Extension of Deadline for Preliminary Results of Antidumping Duty Administrative Review," dated April 6, 2023.

⁴ See Memorandum, "Decision Memorandum for the Preliminary Results of the 2021–2022 Administrative Review of the Antidumping Duty Order on Utility Scale Wind Towers from Korea," dated concurrently with, and hereby adopted by, this notice (Preliminary Decision Memorandum).

⁵ For a complete description of the scope of the *Order*, see Preliminary Decision Memorandum at 2–3.

⁶ See Hyosung's Letter, "No Shipment Letter," dated October 28, 2022; see also CS Wind's Letter, "Notice of No Sales," dated November 10, 2022.

⁷ See, e.g., *Certain Frozen Warmwater Shrimp from Thailand: Preliminary Results of Antidumping Duty Administrative Review, Partial Rescission of Review, Preliminary Determination of No Shipments; 2012–2013*, 79 FR 15951, 15952 (March 24, 2014), unchanged in *Certain Frozen Warmwater Shrimp from Thailand: Final Results of Antidumping Duty Administrative Review, Final Determination of No Shipments, and Partial Rescission of Review; 2012–2013*, 79 FR 51306 (August 28, 2014); and *Magnesium Metal from the Russian Federation: Preliminary Results of Antidumping Duty Administrative Review*, 75 FR 26922, 26923 (May 13, 2010), unchanged in *Magnesium Metal from the Russian Federation: Final Results of Antidumping Duty Administrative Review*, 75 FR 56989 (September 17, 2010).

⁸ See 19 CFR 351.224(b).

⁹ See 19 CFR 351.309(c).

for filing case briefs.¹⁰ Parties who submit case briefs or rebuttal briefs in this proceeding are encouraged to submit with each argument: (1) a statement of the issue; (2) a brief summary of the argument; and (3) a table of authorities.¹¹ Case and rebuttal briefs should be filed using ACCESS.¹² An electronically filed document must be received successfully in its entirety by ACCESS by 5:00 p.m. Eastern Time on the established deadline. Note that Commerce has temporarily modified certain of its requirements for serving documents containing business proprietary information, until further notice.¹³

Pursuant to 19 CFR 351.310(c), interested parties who wish to request a hearing must submit a written request to the Assistant Secretary for Enforcement and Compliance, filed electronically via ACCESS within 30 days after the date of publication of this notice.¹⁴ Hearing requests should contain: (1) the party's name, address, and telephone number; (2) the number of participants; and (3) a list of issues to be discussed. Oral presentations at the hearing will be limited to issues raised in the briefs. If a request for a hearing is made, parties will be notified of the time and date for the hearing.¹⁵

Commerce intends to issue the final results of this administrative review, including the results of its analysis raised in any written briefs, not later than 120 days after the date of publication of this notice, unless otherwise extended.¹⁶

Assessment Rates

Upon issuing the final results, Commerce shall determine, and U.S. Customs and Border Protection (CBP) shall assess, antidumping duties on all appropriate entries. Pursuant to 19 CFR 351.212(b)(1), because Dongkuk reported the entered value of its U.S. sales, we calculated importer-specific *ad valorem* duty assessment rates based on the ratio of the total amount of dumping calculated for the examined sales to the total entered value of those sales. Where either the respondent's weighted-average dumping margin is

zero or *de minimis* within the meaning of 19 CFR 351.106(c)(1), or an importer-specific rate is zero or *de minimis*, we will instruct CBP to liquidate the appropriate entries without regard to antidumping duties.

Commerce's "automatic assessment" practice will apply to entries of subject merchandise during the POR produced by Dongkuk for which Dongkuk did not know that the merchandise it sold to the intermediary (e.g., a reseller, trading company, or exporter) was destined for the United States. In such instances, we will instruct CBP to liquidate unreviewed entries at the all-others rate if there is no rate for the intermediate company(ies) involved in the transaction.

For the companies which were not selected for individual examination, we intend to assign an antidumping duty assessment rate equal to the dumping margin calculated in the final results of this review for Dongkuk. Further, if we continue to find in the final results that CS Wind and Hyosung had no shipments of subject merchandise during the POR, we will instruct CBP to liquidate any suspended entries that entered under their antidumping duty case numbers (i.e., at that exporter's rate) at the all-others rate if there is no rate for the intermediate company(ies) involved in the transaction.

In accordance with section 751(a)(2)(C) of the Act, the final results of this review shall be the basis for the assessment of antidumping duties on entries of merchandise covered by the final results of this review and for future deposits of estimated duties, where applicable.

Commerce intends to issue assessment instructions to CBP no earlier than 35 days after the date of publication of the final results of this review in the **Federal Register**. If a timely summons is filed at the U.S. Court of International Trade, the assessment instructions will direct CBP not to liquidate relevant entries until the time for parties to file a request for a statutory injunction has expired (i.e., within 90 days of publication).

Cash Deposit Requirements

The following deposit requirements will be effective for all shipments of the subject merchandise entered, or withdrawn from warehouse, for consumption on or after the publication date of the final results of this administrative review, as provided by section 751(a)(2)(C) of the Act: (1) the cash deposit rate for the company listed above will be that established in the final results of this review, except if the rate is less than 0.50 percent and,

therefore, *de minimis* within the meaning of 19 CFR 351.106(c)(1), in which case the cash deposit rate will be zero; (2) for previously investigated or reviewed companies not covered in this review, the cash deposit rate will continue to be the company-specific cash deposit rate published for the most recently completed segment of this proceeding in which the company participated; (3) if the exporter is not a firm covered in this review, or the LTFV investigation, but the manufacturer is, then the cash deposit rate will be the rate established for the most recent segment for the manufacturer of the merchandise; and (4) the cash deposit rate for all other manufacturers or exporters will continue to be 5.41 percent, the all-others rate established in the LTFV investigation.¹⁷ These deposit requirements, when imposed, shall remain in effect until further notice.

Notification to Importers

This notice also serves as a preliminary reminder to importers of their responsibility under 19 CFR 351.402(f) to file a certificate regarding the reimbursement of antidumping duties prior to liquidation of the relevant entries during this review period. Failure to comply with this requirement could result in Commerce's presumption that reimbursement of antidumping duties occurred and the subsequent assessment of double antidumping duties.

Notification to Interested Parties

We are issuing and publishing these results in accordance with sections 751(a)(1) and 777(i)(1) of the Act.

Dated: August 29, 2023.

Lisa W. Wang,

Assistant Secretary for Enforcement and Compliance.

Appendix I—List of Topics Discussed in the Preliminary Decision Memorandum

- I. Summary
- II. Background
- III. Scope of the Order
- IV. Discussion of the Methodology
- V. Recommendation

Appendix II—Review-Specific Rate Applicable to Companies Not Selected for Individual Review

1. CS Wind China Co., Ltd.
2. CS Wind Malaysia Sdn. Bhd.
3. CS Wind Taiwan Ltd.
4. CS Wind Turkey Kule Imalati A.S.
5. CS Wind UK Limited
6. CS Wind Vietnam Co., Ltd.
7. Enercon Korea Inc.
8. GE Renewable Energy

¹⁷ See *Order*, 85 FR at 52547.

¹⁰ Commerce is exercising its discretion, under 19 CFR 351.309(d)(1), to alter the time limit for filing of rebuttal briefs.

¹¹ See 19 CFR 351.309(c)(2) and (d)(2).

¹² See 19 CFR 351.303.

¹³ See 19 CFR 351.309; see also 19 CFR 351.303 (for general filing requirements); and *Temporary Rule Modifying AD/CVD Service Requirements Due to COVID-19; Extension of Effective Period*, 85 FR 41363 (July 10, 2020).

¹⁴ See 19 CFR 351.310(c).

¹⁵ See 19 CFR 351.310(d).

¹⁶ See section 751(a)(3)(A) of the Act and 19 CFR 351.213(h)(1).

9. Nordex SE
 10. Siemens Gamesa Renewable Energy Limited
 11. Vestas Korea
 12. Vestas Korea Wind Technology Ltd.

[FR Doc. 2023–19121 Filed 9–5–23; 8:45 am]

BILLING CODE 3510–DS–P

DEPARTMENT OF COMMERCE

National Institute of Standards and Technology

Information Collection Activities; Submission to the Office of Management and Budget (OMB) for Review and Approval; Comment Request; CHIPS Full-Application Information Collection

The Department of Commerce will submit the following information collection request to the Office of Management and Budget (OMB) for review and clearance in accordance with the Paperwork Reduction Act of 1995, on or after the date of publication of this notice. We invite the general public and other Federal agencies to comment on proposed, and continuing information collections, which helps us assess the impact of our information collection requirements and minimize the public's reporting burden. Public comments were previously requested via the **Federal Register** on Wednesday, April 12, 2023, during a 60-day comment period. This notice allows for an additional 30 days for public comments.

Agency: National Institute of Standards and Technology (NIST), Commerce.

Title: CHIPS Full-application Information Collection.

OMB Control Number: 0693–0094.

Form Number(s): None.

Type of Request: Regular.

Number of Respondents: 140.

Average Hours per Response: 125 hours.

Burden Hours: 17,500 hours.

Needs and Uses: Businesses and other entities applying for CHIPS Act funding under the CHIPS Incentive Program must submit a full application via a form available at <https://applications.chips.gov/>, which includes:

- Cover Page
- Covered Incentive
- Description of Project(s)
- Applicant Profile
- Alignment with Economic and National Security Objectives
- Commercial Strategy
- Financial Information
- Project Technical Feasibility
- Organization Information
- Workforce Development Plan

- Broader Impacts
- Standard Forms

Affected Public: Business or other for-profit organizations.

Frequency: Once.

Respondent's Obligation: Mandatory to be eligible for CHIPS Act funding.

Legal Authority: CHIPS Act of 2022 (Division A of Pub. L. 117–167) (the Act).

This information collection request may be viewed at www.reginfo.gov. Follow the instructions to view the Department of Commerce collections currently under review by OMB.

Written comments and recommendations for the proposed information collection should be submitted within 30 days of the publication of this notice on the following website www.reginfo.gov/public/do/PRAMain. Find this particular information collection by selecting “Currently under 30-day Review—Open for Public Comments” or by using the search function and entering either the title of the collection or the OMB Control Number 0693–0094.

Sheleen Dumas,

Department PRA Clearance Officer, Office of the Under Secretary for Economic Affairs, Commerce Department.

[FR Doc. 2023–19190 Filed 9–5–23; 8:45 am]

BILLING CODE 3510–13–P

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

[RTID 0648–XD269]

Taking and Importing Marine Mammals; Taking Marine Mammals Incidental to Geophysical Surveys Related to Oil and Gas Activities in the Gulf of Mexico

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Notice; modification to expiration date of Letter of Authorization.

SUMMARY: In accordance with the Marine Mammal Protection Act (MMPA), as amended, its implementing regulations, and NMFS' MMPA regulations for Taking Marine Mammals Incidental to Geophysical Surveys Related to Oil and Gas Activities in the Gulf of Mexico (GOM), notification is hereby given that NMFS has modified the expiration date of a Letter of Authorization (LOA) issued to Shell Offshore Inc. (Shell) for the take of

marine mammals incidental to geophysical survey activity in the GOM.

DATES: This LOA is effective through September 15, 2023.

ADDRESSES: The LOA, LOA request, and supporting documentation are available online at: <https://www.fisheries.noaa.gov/action/incidental-take-authorization-oil-and-gas-industry-geophysical-survey-activity-gulf-mexico>. In case of problems accessing these documents, please call the contact listed below (see **FOR FURTHER INFORMATION CONTACT**).

FOR FURTHER INFORMATION CONTACT: Rachel Wachtendonk, Office of Protected Resources, NMFS, (301) 427–8401.

SUPPLEMENTARY INFORMATION:

Background

Sections 101(a)(5)(A) and (D) of the MMPA (16 U.S.C. 1361 *et seq.*) direct the Secretary of Commerce to allow, upon request, the incidental, but not intentional, taking of small numbers of marine mammals by U.S. citizens who engage in a specified activity (other than commercial fishing) within a specified geographical region if certain findings are made and either regulations are issued or, if the taking is limited to harassment, a notice of a proposed authorization is provided to the public for review.

An authorization for incidental takings shall be granted if NMFS finds that the taking will have a negligible impact on the species or stock(s), will not have an unmitigable adverse impact on the availability of the species or stock(s) for subsistence uses (where relevant), and if the permissible methods of taking and requirements pertaining to the mitigation, monitoring and reporting of such takings are set forth. NMFS has defined “negligible impact” in 50 CFR 216.103 as an impact resulting from the specified activity that cannot be reasonably expected to, and is not reasonably likely to, adversely affect the species or stock through effects on annual rates of recruitment or survival.

Except with respect to certain activities not pertinent here, the MMPA defines “harassment” as any act of pursuit, torment, or annoyance which (i) has the potential to injure a marine mammal or marine mammal stock in the wild (Level A harassment); or (ii) has the potential to disturb a marine mammal or marine mammal stock in the wild by causing disruption of behavioral patterns, including, but not limited to, migration, breathing, nursing, breeding, feeding, or sheltering (Level B harassment).

On January 19, 2021, we issued a final rule with regulations to govern the unintentional taking of marine mammals incidental to geophysical survey activities conducted by oil and gas industry operators, and those persons authorized to conduct activities on their behalf (collectively “industry operators”), in U.S. waters of the GOM over the course of 5 years (86 FR 5322). The rule was based on our findings that the total taking from the specified activities over the 5-year period will have a negligible impact on the affected species or stock(s) of marine mammals and will not have an unmitigable adverse impact on the availability of those species or stocks for subsistence uses. The rule became effective on April 19, 2021.

Our regulations at 50 CFR 217.180 *et seq.* allow for the issuance of LOAs to industry operators for the incidental take of marine mammals during geophysical survey activities and prescribe the permissible methods of taking and other means of affecting the least practicable adverse impact on marine mammal species or stocks and their habitat (often referred to as mitigation), as well as requirements pertaining to the monitoring and reporting of such taking. Under section 217.186(e), issuance of an LOA shall be based on a determination that the level of taking will be consistent with the findings made for the total taking allowable under these regulations and a determination that the amount of take authorized under the LOA is of no more than small numbers.

NMFS issued an LOA to Shell on October 1, 2022, for the take of marine mammals incidental to a 3-dimensional (3D) ocean bottom node (OBN) survey in Garden Banks Lease Block GB555 and GB556 and the surrounding 414 lease blocks effective through August 31, 2023. Please see the **Federal Register** notification of issuance (87 FR 55790, September 12, 2022) for additional detail regarding the LOA and the survey activity.

Shell initially anticipated that the activity would occur at some point between October 1, 2022 and August 31, 2023. Shell subsequently conveyed to NMFS that the survey would not be able to be completed by the original end date. Shell has requested modification to the expiration date of the LOA (from August 31, 2023, to September 15, 2023) to accommodate the survey delays.

Authorization

NMFS has changed the expiration date of the LOA from August 31, 2023 to September 15, 2023. There are no other changes to the LOA as described

in the September 12, 2023, **Federal Register** notice of issuance (87 FR 55790): the specified survey activity; estimated take by incidental harassment; and small numbers analysis and determination remain unchanged.

Dated: August 28, 2023.

Kimberly Damon-Randall,
Director, Office of Protected Resources,
National Marine Fisheries Service.

[FR Doc. 2023–19184 Filed 9–5–23; 8:45 am]

BILLING CODE 3510–22–P

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

[RTID 0648–XD316]

New England Fishery Management Council; Public Meeting

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Notice of public meeting.

SUMMARY: The New England Fishery Management Council (Council) is scheduling a public hybrid meeting of its Groundfish Committee to consider actions affecting New England fisheries in the exclusive economic zone (EEZ). Recommendations from this group will be brought to the full Council for formal consideration and action, if appropriate.

DATES: This hybrid meeting will be held on September 22, 2023, at 9:30 a.m.

ADDRESSES:

Meeting address: This meeting will be held at the DoubleTree by Hilton, 50 Ferncroft Road, Danvers, MA 01923; telephone: (978) 777–2500.

Webinar registration URL information: <https://attendee.gotowebinar.com/register/5463173544525981530>.

Council address: New England Fishery Management Council, 50 Water Street, Mill 2, Newburyport, MA 01950.

FOR FURTHER INFORMATION CONTACT: Cate O’Keefe, Executive Director, New England Fishery Management Council; telephone: (978) 465–0492.

SUPPLEMENTARY INFORMATION:

Agenda

The Groundfish Committee will meet to discuss recommendations from the Recreational Advisory Panel and Groundfish Advisory Panel. They will discuss Atlantic Cod Transition Plan—a summary of fishery data from the Research Track stock assessment for Atlantic cod as well as Framework Adjustment 66/Specifications and

Management Measures—an update on the development of draft alternatives and a report from the Transboundary Management Guidance Committee (TMGC). The Committee will discuss Framework Adjustment 68/Acceptable Biological Catches (ABC) Control Rules—the findings from the facilitated meeting and Groundfish Committee motions from meeting held on August 17, 2023 as well as 2024 Council Priorities—possible groundfish priorities for the Council to consider for 2024, and provide recommendations to the Council, as appropriate. Other business will be discussed as necessary.

Although non-emergency issues not contained on the agenda may come before this Council for discussion, those issues may not be the subject of formal action during this meeting. Council action will be restricted to those issues specifically listed in this notice and any issues arising after publication of this notice that require emergency action under section 305(c) of the Magnuson-Stevens Act, provided the public has been notified of the Council’s intent to take final action to address the emergency. The public also should be aware that the meeting will be recorded. Consistent with 16 U.S.C. 1852, a copy of the recording is available upon request.

Special Accommodations

This meeting is physically accessible to people with disabilities. Requests for sign language interpretation or other auxiliary aids should be directed to Cate O’Keefe, Executive Director, at (978) 465–0492, at least 5 days prior to the meeting date.

Authority: 16 U.S.C. 1801 *et seq.*

Dated: August 31, 2023.

Rey Israel Marquez,

Acting Deputy Director, Office of Sustainable Fisheries, National Marine Fisheries Service.

[FR Doc. 2023–19199 Filed 9–5–23; 8:45 am]

BILLING CODE 3510–22–P

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

Agency Information Collection Activities; Submission to the Office of Management and Budget (OMB) for Review and Approval; Comment Request; Workplace Violence Prevention and Response Forms

The Department of Commerce will submit the following information collection request to the Office of Management and Budget (OMB) for review and clearance in accordance

with the Paperwork Reduction Act of 1995, on or after the date of publication of this notice. We invite the general public and other Federal agencies to comment on proposed, and continuing information collections, which helps us assess the impact of our information collection requirements and minimize the public's reporting burden. Public comments were previously requested via the **Federal Register** on December 27, 2022 (87 FR 79279) during a 60-day comment period. This notice allows for an additional 30 days for public comments.

Agency: National Oceanic and Atmospheric Administration (NOAA), Commerce.

Title: Workplace Violence Prevention and Response Forms.

OMB Control Number: 0648–XXXX.

Form Number(s): None.

Type of Request: Regular submission, new information collection.

Number of Respondents: 323.

Average Hours Per Response: Impacted Person Reporting Preference Form and SASH.

Data Collection Form: 1 hour; Workplace Culture Survey: 30 minutes; Ocean Acidification.

Post-Cruise Survey: 10 minutes.

Total Annual Burden Hours: 237.

Needs and Uses: This is a request for a new information collection.

This information collection will be used to document elements of the sexual assault/sexual harassment (SASH) response and/or reporting process and comply with procedures set up to effectively manage National Oceanic and Atmospheric Administration (NOAA), Workplace Violence Prevention and Response (WVPR). Under 33 U.S.C. 894, NOAA is required to establish a mechanism by which sexual assault and sexual harassment can be reported on a Restricted and Unrestricted basis. Further, Congress directs NOAA to reference Department of Defense (DoD) policy and procedures in the standup of our SASH response program. WVPR requires various Intake forms to document a victim's election of a Restricted or Unrestricted Report of sexual assault or sexual harassment, as well as document that the details of each reporting option have been properly communicated with the victim. WVPR has modeled its forms after the DoD sexual assault/sexual harassment forms in accordance with guidance by Congress. NOAA may also use this collection to survey federal employees, contractors, affiliates, interns, volunteers, or other individuals who work in or visit NOAA-occupied facilities, vessels, or aircraft to

determine their perceptions of incidents of SASH, pursuant to NOAA Administrative Order (NAO) 202–1106, Section 5.01e.

Affected Public: Individuals employed by NOAA, including affiliates and contractors.

Frequency: As needed.

Respondent's Obligation: Voluntary.

Legal Authority: 33 U.S.C. 894.

This information collection request may be viewed at www.reginfo.gov. Follow the instructions to view the Department of Commerce collections currently under review by OMB.

Written comments and recommendations for the proposed information collection should be submitted within 30 days of the publication of this notice on the following website www.reginfo.gov/public/do/PRAMain. Find this particular information collection by selecting "Currently under 30-day Review—Open for Public Comments" or by using the search function and entering the title of the collection.

Sheleen Dumas,

Department PRA Clearance Officer, Office of the Under Secretary for Economic Affairs, Commerce Department.

[FR Doc. 2023–19191 Filed 9–5–23; 8:45 am]

BILLING CODE 3510–12–P

DEPARTMENT OF DEFENSE

Department of the Navy

Board of Visitors, Marine Corps University; Notice of Federal Advisory Committee Meeting

AGENCY: Department of the Navy (DoN), Department of Defense (DoD).

ACTION: Notice of open meeting.

SUMMARY: The Board of Visitors of the Marine Corps University (BOV MCU) will meet to review, develop and provide recommendations on all aspects of the academic and administrative policies of the University; examine all aspects of professional military education operations; and provide such oversight and advice, as is necessary, to facilitate high educational standards and cost effective operations. The Board will be focusing primarily on the internal procedures of Marine Corps University.

DATES: The meeting will be held on Monday, 18 September 2023, from 8:00 a.m. to 4:30 p.m. and 19 September from 08:30 a.m. to 12:00 p.m. Pacific Time Zone.

ADDRESSES: The meeting will be held at Camp Pendleton, California. The

address is: Education Center, Building 23195, Marine Corps Air Station, Camp Pendleton, CA 92055. All sessions of the meeting will be open to the public via

Microsoft Teams: <https://www.microsoft.com/en-us/microsoft-teams/join-a-meeting?rtc=1>.

Meeting ID: 257 829 522 460.

Passcode: nTQqLr.

Or call in (audio only) +1 323–792–6328, United States, Los Angeles.

Phone Conference ID: 979 155 738#.

FOR FURTHER INFORMATION CONTACT: Dr. Kim Florich, Director of Faculty Development and Outreach, Marine Corps University Board of Visitors, 2076 South Street, Quantico, Virginia 22134, telephone number 703–432–4837.

SUPPLEMENTARY INFORMATION:

Written Comments and Statements: Pursuant to section 10(a)(3) of the FACA and 41 CFR 102–3.105(j) and 102–3.140, interested persons may submit a written statement for consideration at any time, but should be received by the Designated Federal Officer at least 5 business days prior to the meeting date so that the comments may be made available to the Board for their consideration prior to the meeting. Written statements should be submitted via email to: Kimberly.florich@usmcu.edu. Please note that since the Board operates under the provisions of the FACA, as amended, all submitted comments and public presentations may be treated as public documents and may be made available for public inspection, including, but not limited to, being posted on the board website.

Dated: August 30, 2023.

J.E. Koningisor,

Lieutenant Commander, Judge Advocate General's Corps, U.S. Navy, Federal Register Liaison Officer.

[FR Doc. 2023–19136 Filed 9–5–23; 8:45 am]

BILLING CODE 3810–FF–P

DEPARTMENT OF EDUCATION

[Docket No.: ED–2023–SCC–0157]

Agency Information Collection Activities; Comment Request; 2020/25 Beginning Postsecondary Students (BPS:20/25) Field Test

AGENCY: National Center for Education Statistics (NCES), Department of Education (ED).

ACTION: Notice.

SUMMARY: In accordance with the Paperwork Reduction Act (PRA) of 1995, the Department is proposing a revision of a currently approved information collection request (ICR).

DATES: Interested persons are invited to submit comments on or before November 6, 2023.

ADDRESSES: To access and review all the documents related to the information collection listed in this notice, please use <http://www.regulations.gov> by searching the Docket ID number ED–2023–SCC–0157. Comments submitted in response to this notice should be submitted electronically through the Federal eRulemaking Portal at <http://www.regulations.gov> by selecting the Docket ID number or via postal mail, commercial delivery, or hand delivery. If the www.regulations.gov site is not available to the public for any reason, the Department will temporarily accept comments at ICDocketMgr@ed.gov. Please include the docket ID number and the title of the information collection request when requesting documents or submitting comments. Please note that comments submitted after the comment period will not be accepted. Written requests for information or comments submitted by postal mail or delivery should be addressed to the Manager of the Strategic Collections and Clearance Governance and Strategy Division, U.S. Department of Education, 400 Maryland Ave. SW, LBJ, Room 4C210, Washington, DC 20202–8240.

FOR FURTHER INFORMATION CONTACT: For specific questions related to collection activities, please contact Carrie Clarady, (202) 245–6347.

SUPPLEMENTARY INFORMATION: The Department, in accordance with the Paperwork Reduction Act of 1995 (PRA) (44 U.S.C. 3506(c)(2)(A)), provides the general public and Federal agencies with an opportunity to comment on proposed, revised, and continuing collections of information. This helps the Department assess the impact of its information collection requirements and minimize the public's reporting burden. It also helps the public understand the Department's information collection requirements and provide the requested data in the desired format. The Department is soliciting comments on the proposed information collection request (ICR) that is described below. The Department is especially interested in public comment addressing the following issues: (1) is this collection necessary to the proper functions of the Department; (2) will this information be processed and used in a timely manner; (3) is the estimate of burden accurate; (4) how might the Department enhance the quality, utility, and clarity of the information to be collected; and (5) how might the Department minimize the burden of this collection on the

respondents, including through the use of information technology. Please note that written comments received in response to this notice will be considered public records.

Title of Collection: 2020/25 Beginning Postsecondary Students (BPS:20/25) Field Test.

OMB Control Number: 1850–0631.

Type of Review: Revision of a currently approved ICR.

Respondents/Affected Public: Individuals or households *Total Estimated Number of Annual Responses:* 6,927.

Total Estimated Number of Annual Burden Hours: 1,279.

Abstract: The 2020/25 Beginning Postsecondary Students Full-Scale (BPS:20/25) is conducted by the National Center for Education Statistics, part of the Institute of Education Sciences, within the Department of Education, and is part of the Beginning Postsecondary Students Longitudinal Study data collection program at <https://nces.ed.gov/surveys/bps/>. BPS is designed to follow a cohort of students who enroll in postsecondary education for the first time during the same academic year, irrespective of the date of high school completion. The study collects data on students' persistence in and completion of postsecondary education programs; their transition to employment; demographic characteristics; and changes over time in their goals, marital status, income, and debt, among other indicators. Data from BPS are used to help researchers and policymakers better understand how financial aid influences persistence and completion, what percentages of students complete various degree programs, what are the early employment and wage outcomes for certificate and degree attainments, and why students leave school.

The BPS:20/25 field test will include approximately 3,280 students who first began in the 2018–19 academic year. BPS:20/25 will be a nationally-representative sample of approximately 34,240 students who were first-time beginning students during the 2019–20 academic year. These students will be asked to complete a survey and administrative data will also be collected for them. Administrative data matching will be conducted with sources including the National Student Loan Data System (NSLDS), containing federal loan and grant files; the Central Processing System (CPS), which houses and processes data contained in the Free Application for Federal Student Aid (FAFSA) forms; the National Student Clearinghouse (NSC) which provides enrollment and degree verification;

vendors of national undergraduate, graduate, and professional student admission tests; and possible other administrative data sources such as the Veterans Benefits Administration (VBA). These data will be obtained through file matching/downloading.

This submission is designed to adequately justify the need for and overall practical utility of the full study, presenting the overarching plan for all phases of the data collection and providing as much detail about the measures to be used as is available at the time of this submission. As part of this submission, NCES will publish a notice in the **Federal Register** allowing first a 60- and then a 30-day public comment period. Field test materials, procedures, and results will inform the full-scale study. After completion of the field test, NCES will publish a notice in the **Federal Register** allowing an additional 30-day public comment period on the final details and materials of the BPS:20/25 full-scale study.

Dated: August 31, 2023.

Stephanie Valentine,

PRA Coordinator, Strategic Collections and Clearance, Governance and Strategy Division, Office of Chief Data Officer, Office of Planning, Evaluation and Policy Development.

[FR Doc. 2023–19222 Filed 9–5–23; 8:45 am]

BILLING CODE 4000–01–P

DEPARTMENT OF ENERGY

Electric Vehicle Working Group

AGENCY: Department of Energy.

ACTION: Notice of open meeting.

SUMMARY: The Department of Energy hereby publishes a notice of open meeting of the Electric Vehicle Working Group (EVWG). The Federal Advisory Committee Act requires that public notice of these meetings be announced in the **Federal Register**.

DATES: Tuesday, September 26, 2023; 1:00 p.m.–4:00 p.m. Eastern Time.

ADDRESSES: The meeting will be held virtually. Members of the public who would like to participate must register at: <https://driveelectric.gov/ev-working-group>.

FOR FURTHER INFORMATION CONTACT: Dr. Rachael Nealer, Designated Federal Officer, U.S. Department of Energy, 1000 Independence Avenue SW, Washington, DC 20585; email: evwg@ee.doe.gov; telephone: (202) 586–3916.

SUPPLEMENTARY INFORMATION:

Background: The Electric Vehicle Working Group (EVWG) was formed by the Joint Office of Energy and

Transportation to make recommendations to the Secretaries of Energy and Transportation regarding the development, adoption, and integration of light-, medium-, and heavy-duty electric vehicles (EVs) into the U.S. transportation and energy systems.

Purpose of the Meeting: This is the inaugural meeting of the EVWG.

Tentative Agenda: The meeting will start at 1:00 p.m. Eastern Time on Tuesday, September 26, 2023. The tentative meeting agenda includes: an introduction of EVWG members, a review of the role of the EVWG, and a discussion of potential report topics that the EVWG will research. Meeting materials and a link to registration can be found here: <https://driveelectric.gov/ev-working-group>.

Public Participation: This virtual meeting is open to the public. Individuals who would like to attend must register for the meeting here: <https://driveelectric.gov/ev-working-group>.

Individuals and representatives of organizations who would like to offer comments and suggestions may do so during the public comment portion of the meeting. Approximately 25 minutes will be reserved for public comments at the end of the meeting. Time allotted per speaker will depend on the number who wish to speak but will not exceed three minutes. The Designated Federal Officer is empowered to conduct the meeting in a fashion that will facilitate the orderly conduct of business. Those wishing to speak during the public comment period should indicate so within their registration.

Those not able to attend the meeting or who have insufficient time to address the committee are invited to send a

written statement to Dr. Rachael Nealer, U.S. Department of Energy, 1000 Independence Avenue SW, Washington, DC 20585, or email: evwg@ee.doe.gov.

Minutes: The minutes of the meeting will be available on <https://driveelectric.gov/ev-working-group> or by contacting Dr. Nealer. She may be reached at the above postal address or email address.

Signed in Washington, DC, on August 30, 2023.

LaTanya Butler,

Deputy Committee Management Officer.

[FR Doc. 2023-19112 Filed 9-5-23; 8:45 am]

BILLING CODE 6450-01-P

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

[Docket No. RM98-1-000]

Records Governing Off-the-Record Communications; Public Notice

This constitutes notice, in accordance with 18 CFR 385.2201(b), of the receipt of prohibited and exempt off-the-record communications.

Order No. 607 (64 FR 51222, September 22, 1999) requires Commission decisional employees, who make or receive a prohibited or exempt off-the-record communication relevant to the merits of a contested proceeding, to deliver to the Secretary of the Commission, a copy of the communication, if written, or a summary of the substance of any oral communication.

Prohibited communications are included in a public, non-decisional file associated with, but not a part of, the

decisional record of the proceeding. Unless the Commission determines that the prohibited communication and any responses thereto should become a part of the decisional record, the prohibited off-the-record communication will not be considered by the Commission in reaching its decision. Parties to a proceeding may seek the opportunity to respond to any facts or contentions made in a prohibited off-the-record communication and may request that the Commission place the prohibited communication and responses thereto in the decisional record. The Commission will grant such a request only when it determines that fairness so requires. Any person identified below as having made a prohibited off-the-record communication shall serve the document on all parties listed on the official service list for the applicable proceeding in accordance with Rule 2010, 18 CFR 385.2010.

Exempt off-the-record communications are included in the decisional record of the proceeding, unless the communication was with a cooperating agency as described by 40 CFR 1501.6, made under 18 CFR 385.2201(e) (1) (v).

The following is a list of off-the-record communications recently received by the Secretary of the Commission. This filing may be viewed on the Commission's website at <http://www.ferc.gov> using the eLibrary link. Enter the docket number, excluding the last three digits, in the docket number field to access the document. For assistance, please contact FERC Online Support at FERCOnlineSupport@ferc.gov or toll free at (866) 208-3676, or for TTY, contact (202) 502-8659.

Docket Nos.	File date	Presenter or requester
Prohibited: NONE.		
Exempt: 1. P-14513-003	8-28-2023	FERC Staff. ¹

¹ Programmatic agreement signature page of Tricia Canaday of Idaho State Historic Preservation Office.

Dated: August 30, 2023.

Debbie-Anne A. Reese,

Deputy Secretary.

[FR Doc. 2023-19167 Filed 9-5-23; 8:45 am]

BILLING CODE 6717-01-P

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

Combined Notice of Filings #1

Take notice that the Commission received the following exempt wholesale generator filings:

Docket Numbers: EG23-266-000.

Applicants: Walnut Bend Solar LLC.

Description: Walnut Bend Solar LLC submits Notice of Self-Certification of Exempt Wholesale Generator Status.

Filed Date: 8/30/23.

Accession Number: 20230830-5031.

Comment Date: 5 p.m. ET 9/20/23.

Docket Numbers: EG23-267-000.

Applicants: SCEF1 Fuel Cell, LLC.

Description: SCEF1 Fuel Cell, LLC

submits Notice of Self-Certification of Exempt Wholesale Generator Status.

Filed Date: 8/30/23.

Accession Number: 20230830-5113.

Comment Date: 5 p.m. ET 9/20/23.

Docket Numbers: EG23-268-000.

Applicants: Century Oak Wind Project, LLC.

Description: Century Oak Wind Project, LLC submits Notice of Self-Certification of Exempt Wholesale Generator Status.

Filed Date: 8/30/23.

Accession Number: 20230830-5126.

Comment Date: 5 p.m. ET 9/20/23.

Docket Numbers: EG23-269-000.

Applicants: Longhorn Storage LLC.

Description: Longhorn Storage LLC submits Notice of Self-Certification of Exempt Wholesale Generator Status.

Filed Date: 8/30/23.

Accession Number: 20230830-5135.

Comment Date: 5 p.m. ET 9/20/23.

Docket Numbers: EG23-270-000.

Applicants: Hunter Solar, LLC.

Description: Hunter Solar, LLC submits Notice of Self-Certification of Exempt Wholesale Generator Status.

Filed Date: 8/30/23.

Accession Number: 20230830-5137.

Comment Date: 5 p.m. ET 9/20/23.

Take notice that the Commission received the following Complaints and Compliance filings in EL Dockets:

Docket Numbers: EL23-93-000; QF23-1212-001.

Applicants: Pinellas County, Pinellas County.

Description: Petition for Declaratory Order of Pinellas County, et al.

Filed Date: 8/17/23.

Accession Number: 20230817-5156.

Comment Date: 5 p.m. ET 9/18/23.

Docket Numbers: EL23-94-000.

Applicants: Idaho Power Company v. California Independent System Operator Corporation.

Description: Complaint of Idaho Power Company v. California Independent System Operator Corporation.

Filed Date: 8/29/23.

Accession Number: 20230829-5138.

Comment Date: 5 p.m. ET 9/18/23.

Take notice that the Commission received the following electric rate filings:

Docket Numbers: ER18-1639-025.

Applicants: Constellation Mystic Power, LLC.

Description: Compliance filing: Compliance Filing of 2022 CapEx Settlement Tariff Sheets to be effective 6/1/2022.

Filed Date: 8/30/23.

Accession Number: 20230830-5130.

Comment Date: 5 p.m. ET 9/20/23.

Docket Numbers: ER20-1977-005.

Applicants: Versant Power.

Description: Compliance filing: Joint Offer of Settlement Regarding Maine Public District Charges (ER20-1977-) to be effective N/A.

Filed Date: 8/30/23.

Accession Number: 20230830-5062.

Comment Date: 5 p.m. ET 9/20/23.

Docket Numbers: ER23-2215-001.

Applicants: Southwest Power Pool, Inc.

Description: Tariff Amendment: 3675R4 Doniphan Electric Cooperative Assn, Inc. NITSA NOA to be effective 9/1/2023.

Filed Date: 8/30/23.

Accession Number: 20230830-5069.

Comment Date: 5 p.m. ET 9/20/23.

Docket Numbers: ER23-2222-001.

Applicants: Southwest Power Pool, Inc.

Description: Tariff Amendment: 2881R16 City of Chanute, KS NITSA NOA to be effective 9/1/2023.

Filed Date: 8/30/23.

Accession Number: 20230830-5075.

Comment Date: 5 p.m. ET 9/20/23.

Docket Numbers: ER23-2226-001.

Applicants: Southwest Power Pool, Inc.

Description: Tariff Amendment: 3620R5 Kansas City Board of Public Utilities NITSA NOA to be effective 9/1/2023.

Filed Date: 8/30/23.

Accession Number: 20230830-5080.

Comment Date: 5 p.m. ET 9/20/23.

Docket Numbers: ER23-2254-001.

Applicants: Southwest Power Pool, Inc.

Description: Tariff Amendment: 2562R13 Kansas Municipal Energy Agency NITSA and NOA to be effective 9/1/2023.

Filed Date: 8/30/23.

Accession Number: 20230830-5082.

Comment Date: 5 p.m. ET 9/20/23.

Docket Numbers: ER23-2271-001.

Applicants: Southwest Power Pool, Inc.

Description: Tariff Amendment: 2415R18 Kansas Municipal Energy Agency NITSA and NOA to be effective 9/1/2023.

Filed Date: 8/30/23.

Accession Number: 20230830-5085.

Comment Date: 5 p.m. ET 9/20/23.

Docket Numbers: ER23-2439-000.

Applicants: Cavalier Solar A2, LLC.

Description: Supplement to July 20, 2023, Cavalier Solar A2, LLC tariff filing.

Filed Date: 8/22/23.

Accession Number: 20230822-5176.

Comment Date: 5 p.m. ET 9/11/23.

Docket Numbers: ER23-2724-000.

Applicants: Puget Sound Energy, Inc.

Description: § 205(d) Rate Filing: HF Sinclair NITSA No. 1025, NOA No.1024, IA No. 1023 to be effective 9/1/2023.

Filed Date: 8/29/23.

Accession Number: 20230829-5169.

Comment Date: 5 p.m. ET 9/19/23.

Docket Numbers: ER23-2725-000.

Applicants: PJM Interconnection, L.L.C.

Description: § 205(d) Rate Filing: Original ISA, Service Agreement No. 7055; Queue Nos. AE2-262/AE2-263 to be effective 7/31/2023.

Filed Date: 8/30/23.

Accession Number: 20230830-5008.

Comment Date: 5 p.m. ET 9/20/23.

Docket Numbers: ER23-2726-000.

Applicants: Walnut Bend Solar LLC.

Description: Baseline eTariff Filing: Application for Market-Based Rate Authorization to be effective 10/30/2023.

Filed Date: 8/30/23.

Accession Number: 20230830-5026.

Comment Date: 5 p.m. ET 9/20/23.

Docket Numbers: ER23-2727-000.

Applicants: MidAmerican Energy Company.

Description: § 205(d) Rate Filing: Concurrence in CSA (ITC Midwest RS 203) to be effective 10/29/2023.

Filed Date: 8/30/23.

Accession Number: 20230830-5039.

Comment Date: 5 p.m. ET 9/20/23.

Docket Numbers: ER23-2728-000.

Applicants: All Clean Power, LLC.

Description: Baseline eTariff Filing: Market-Based Rate Tariff Application to be effective 8/31/2023.

Filed Date: 8/30/23.

Accession Number: 20230830-5044.

Comment Date: 5 p.m. ET 9/20/23.

Docket Numbers: ER23-2729-000.

Applicants: Robin Hollow Solar, LLC.

Description: Baseline eTariff Filing: Application For Market Based Rate Authority to be effective 11/1/2023.

Filed Date: 8/30/23.

Accession Number: 20230830-5070.

Comment Date: 5 p.m. ET 9/20/23.

Docket Numbers: ER23-2730-000.

Applicants: Robin Hollow Solar Lessee, LLC.

Description: Baseline eTariff Filing: Application for Market Based Rate Authority to be effective 11/1/2023.

Filed Date: 8/30/23.

Accession Number: 20230830-5071.

Comment Date: 5 p.m. ET 9/20/23.

Docket Numbers: ER23-2731-000.

Applicants: Arizona Public Service Company.

Description: § 205(d) Rate Filing: Rate Schedule No. 317—Generator Replacement Agreement to be effective 10/30/2023.

Filed Date: 8/30/23.

Accession Number: 20230830-5103.

Comment Date: 5 p.m. ET 9/20/23.

Docket Numbers: ER23-2732-000.

Applicants: Hunter Solar, LLC.

Description: Baseline eTariff Filing: Application for Market-Based Rate

Authorization to be effective 10/30/2023.

Filed Date: 8/30/23.

Accession Number: 20230830–5131.

Comment Date: 5 p.m. ET 9/20/23.

Docket Numbers: ER23–2733–000.

Applicants: El Paso Electric Company.

Description: § 205(d) Rate Filing: Service Agreement No. 389 LGIA for El Paso Electric to be effective 8/15/2023.

Filed Date: 8/30/23.

Accession Number: 20230830–5134.

Comment Date: 5 p.m. ET 9/20/23.

The filings are accessible in the Commission's eLibrary system (<https://elibrary.ferc.gov/idmws/search/fercgensearch.asp>) by querying the docket number.

Any person desiring to intervene, to protest, or to answer a complaint in any of the above proceedings must file in accordance with Rules 211, 214, or 206 of the Commission's Regulations (18 CFR 385.211, 385.214, or 385.206) on or before 5 p.m. Eastern time on the specified comment date. Protests may be considered, but intervention is necessary to become a party to the proceeding.

eFiling is encouraged. More detailed information relating to filing requirements, interventions, protests, service, and qualifying facilities filings can be found at: <https://www.ferc.gov/docs-filing/efiling/filing-req.pdf>. For other information, call (866) 208–3676 (toll free). For TTY, call (202) 502–8659.

The Commission's Office of Public Participation (OPP) supports meaningful public engagement and participation in Commission proceedings. OPP can help members of the public, including landowners, environmental justice communities, Tribal members and others, access publicly available information and navigate Commission processes. For public inquiries and assistance with making filings such as interventions, comments, or requests for rehearing, the public is encouraged to contact OPP at (202) 502–6595 or OPP@ferc.gov.

Dated: August 30, 2023.

Debbie-Anne A. Reese,

Deputy Secretary.

[FR Doc. 2023–19168 Filed 9–5–23; 8:45 am]

BILLING CODE 6717–01–P

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

Combined Notice of Filings

Take notice that the Commission has received the following Natural Gas and

Oil Pipeline Rate and Refund Report filings:

Filings Instituting Proceedings

Docket Numbers: PR23–67–000.

Applicants: TPL SouthTex

Transmission Company LP.

Description: § 284.123(g) Rate Filing: SOC updates 2023 to be effective 8/31/2023.

Filed Date: 8/30/23.

Accession Number: 20230830–5084.

Comment Date: 5 p.m. ET 9/20/23.

Protest Date: 5 p.m. ET 10/30/23

Docket Numbers: RP23–983–000.

Applicants: Gulf South Pipeline Company, LLC.

Description: § 4(d) Rate Filing: Gulf South Go Live GMS Filing to be effective 10/1/2023.

Filed Date: 8/30/23.

Accession Number: 20230830–5019.

Comment Date: 5 p.m. ET 9/11/23.

Docket Numbers: RP23–984–000.

Applicants: Boardwalk Storage Company, LLC.

Description: § 4(d) Rate Filing: BSC GMS Live Tariff Record Filing to be effective 10/1/2023.

Filed Date: 8/30/23.

Accession Number: 20230830–5022.

Comment Date: 5 p.m. ET 9/11/23.

Docket Numbers: RP23–985–000.

Applicants: Transcontinental Gas Pipe Line Company, LLC.

Description: § 4(d) Rate Filing: 2023 ACA Tracker Filing—GSS, LSS, SS–2, S–2 to be effective 10/1/2023.

Filed Date: 8/30/23.

Accession Number: 20230830–5040.

Comment Date: 5 p.m. ET 9/11/23.

Docket Numbers: RP23–986–000.

Applicants: Northwest Pipeline LLC.
Description: § 4(d) Rate Filing: 2023 Winter Fuel Filing to be effective 10/1/2023.

Filed Date: 8/30/23.

Accession Number: 20230830–5073.

Comment Date: 5 p.m. ET 9/11/23.

Docket Numbers: RP23–987–000.

Applicants: El Paso Natural Gas Company, L.L.C.

Description: § 4(d) Rate Filing: Negotiated Rate Agreement Update (Conoco Sept 2023) to be effective 9/1/2023.

Filed Date: 8/30/23.

Accession Number: 20230830–5074.

Comment Date: 5 p.m. ET 9/11/23.

Docket Numbers: RP23–988–000.

Applicants: El Paso Natural Gas Company, L.L.C.

Description: § 4(d) Rate Filing: Negotiated Rate Agreement Update (Pioneer Sept 2023) to be effective 9/1/2023.

Filed Date: 8/30/23.

Accession Number: 20230830–5100.

Comment Date: 5 p.m. ET 9/11/23.

Any person desiring to intervene, to protest, or to answer a complaint in any of the above proceedings must file in accordance with Rules 211, 214, or 206 of the Commission's Regulations (18 CFR 385.211, 385.214, or 385.206) on or before 5:00 p.m. Eastern time on the specified comment date. Protests may be considered, but intervention is necessary to become a party to the proceeding.

The filings are accessible in the Commission's eLibrary system (<https://elibrary.ferc.gov/idmws/search/fercgensearch.asp>) by querying the docket number.

eFiling is encouraged. More detailed information relating to filing requirements, interventions, protests, service, and qualifying facilities filings can be found at: <http://www.ferc.gov/docs-filing/efiling/filing-req.pdf>. For other information, call (866) 208–3676 (toll free). For TTY, call (202) 502–8659.

For other information, call (866) 208–3676 (toll free). For TTY, call (202) 502–8659. The Commission's Office of Public Participation (OPP) supports meaningful public engagement and participation in Commission proceedings. OPP can help members of the public, including landowners, environmental justice communities, Tribal members and others, access publicly available information and navigate Commission processes. For public inquiries and assistance with making filings such as interventions, comments, or requests for rehearing, the public is encouraged to contact OPP at (202) 502–6595 or OPP@ferc.gov.

Dated: August 30, 2023.

Debbie-Anne A. Reese,

Deputy Secretary.

[FR Doc. 2023–19172 Filed 9–5–23; 8:45 am]

BILLING CODE 6717–01–P

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

[Docket No. ER23–2726–000]

Walnut Bend Solar LLC; Supplemental Notice That Initial Market-Based Rate Filing Includes Request for Blanket Section 204 Authorization

This is a supplemental notice in the above-referenced proceeding of Walnut Bend Solar LLC's application for market-based rate authority, with an accompanying rate tariff, noting that such application includes a request for blanket authorization, under 18 CFR

part 34, of future issuances of securities and assumptions of liability.

Any person desiring to intervene or to protest should file with the Federal Energy Regulatory Commission, 888 First Street NE, Washington, DC 20426, in accordance with Rules 211 and 214 of the Commission's Rules of Practice and Procedure (18 CFR 385.211 and 385.214). Anyone filing a motion to intervene or protest must serve a copy of that document on the Applicant.

Notice is hereby given that the deadline for filing protests with regard to the applicant's request for blanket authorization, under 18 CFR part 34, of future issuances of securities and assumptions of liability, is September 19, 2023.

The Commission encourages electronic submission of protests and interventions in lieu of paper, using the FERC Online links at <http://www.ferc.gov>. To facilitate electronic service, persons with internet access who will eFile a document and/or be listed as a contact for an intervenor must create and validate an eRegistration account using the eRegistration link. Select the eFiling link to log on and submit the intervention or protests.

Persons unable to file electronically may mail similar pleadings to the Federal Energy Regulatory Commission, 888 First Street NE, Washington, DC 20426. Hand delivered submissions in docketed proceedings should be delivered to Health and Human Services, 12225 Wilkins Avenue, Rockville, Maryland 20852.

In addition to publishing the full text of this document in the **Federal Register**, the Commission provides all interested persons an opportunity to view and/or print the contents of this document via the internet through the Commission's Home Page (<http://www.ferc.gov>) using the "eLibrary" link. Enter the docket number excluding the last three digits in the docket number field to access the document. At this time, the Commission has suspended access to the Commission's Public Reference Room, due to the proclamation declaring a National Emergency concerning the Novel Coronavirus Disease (COVID-19), issued by the President on March 13, 2020. For assistance, contact the Federal Energy Regulatory Commission at FERCOnlineSupport@ferc.gov or call toll-free, (886) 208-3676 or TTY, (202) 502-8659.

The Commission's Office of Public Participation (OPP) supports meaningful public engagement and participation in Commission proceedings. OPP can help members of the public, including

landowners, environmental justice communities, Tribal members and others, access publicly available information and navigate Commission processes. For public inquiries and assistance with making filings such as interventions, comments, or requests for rehearing, the public is encouraged to contact OPP at (202) 502-6595 or OPP@ferc.gov.

Dated: August 30, 2023.

Debbie-Anne A. Reese,
Deputy Secretary.

[FR Doc. 2023-19169 Filed 9-5-23; 8:45 am]

BILLING CODE 6717-01-P

ENVIRONMENTAL PROTECTION AGENCY

[FRL: 11372-01-OA]

Local Government Advisory Committee (LGAC) and Small Communities Advisory Subcommittee (SCAS) Meeting

AGENCY: Environmental Protection Agency (EPA).

ACTION: Notification of public meeting.

SUMMARY: Pursuant to the Federal Advisory Committee Act (FACA), EPA hereby provides notice of a meeting for the Local Government Advisory Committee (LGAC) and its Small Communities Advisory Subcommittee (SCAS) on the date and time described below. This meeting will be open to the public. For information on public attendance and participation, please see registration details under **SUPPLEMENTARY INFORMATION**.

DATES: The SCAS will have a virtual meeting on September 29th, 2023, from 1:00 to 2:00 p.m. Eastern Daylight Time followed by an LGAC virtual meeting on September 29th, 2023, from 2:30 p.m. to 4:00 p.m. Eastern Daylight Time.

FOR FURTHER INFORMATION CONTACT:

Paige Lieberman, Designated Federal Officer (DFO), at LGAC@epa.gov or 202-564-9957.

Information on Accessibility: For information on access or services for individuals requiring accessibility accommodations, please contact Paige Lieberman by email at LGAC@epa.gov. To request accommodation, please do so five (5) business days prior to the meeting, to give EPA as much time as possible to process your request.

SUPPLEMENTARY INFORMATION:

Content

The LGAC and SCAS will discuss several priority issues at EPA, including recommendations on PFAS risk

communication and the development of a toolkit for local governments, recommendations on land use and electrifying transportation in small communities, and other topics including environmental justice. Meeting materials and recommendations will be posted closer to the meeting.

Registration

The meeting will be held virtually via Microsoft Teams. Members of the public who wish to participate should register by contacting the Designated Federal Officer (DFO) at LGAC@epa.gov by September 22nd, 2023. Once available, the agenda and other supportive meeting materials will be available online at <https://www.epa.gov/ocir/local-government-advisory-committee-lgac> and will be emailed to all registered. In the event of cancellation for unforeseen circumstances, please contact the DFO or check the website above for reschedule information.

Paige Lieberman,

Designated Federal Officer, U.S. Environmental Protection Agency.

[FR Doc. 2023-19189 Filed 9-5-23; 8:45 am]

BILLING CODE 6560-50-P

ENVIRONMENTAL PROTECTION AGENCY

[EPA-HQ-OLEM-2019-0558, FRL-11380-01-OLEM]

Agency Information Collection Activities; Proposed Collection; Comment Request; RCRA Subtitle C Reporting Instructions and Forms, EPA ICR No. 0976.20, OMB Control No. 2050-0024

AGENCY: Environmental Protection Agency (EPA).

ACTION: Notice.

SUMMARY: The Environmental Protection Agency (EPA) is planning to submit the information collection request (ICR), "RCRA Subtitle C Reporting Instructions and Forms" (EPA ICR No. 0976.20, OMB Control No. 2050-0024) to the Office of Management and Budget (OMB) for review and approval in accordance with the Paperwork Reduction Act (PRA). Before doing so, the EPA is soliciting public comments on specific aspects of the proposed information collection as described in **SUPPLEMENTARY INFORMATION**. This is a proposed extension of the ICR, which is currently approved through April 31, 2024. This notice allows for 60 days for public comments.

DATES: Comments must be submitted on or before November 6, 2023.

ADDRESSES: Submit your comments, referencing by Docket ID No. EPA-HQ-OLEM-2019-0558, at <https://www.regulations.gov> (our preferred method), or by mail to: EPA Docket Center, Environmental Protection Agency, Mail Code 28221T, 1200 Pennsylvania Ave. NW, Washington, DC 20460. EPA's policy is that all comments received will be included in the public docket without change including any personal information provided, unless the comment includes profanity, threats, information claimed to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute.

FOR FURTHER INFORMATION CONTACT: Peggy Vyas, Environmental Protection Agency, 1200 Pennsylvania Ave. NW, Washington, DC 20460; telephone number: 202-566-0453; vyas.peggy@epa.gov.

SUPPLEMENTARY INFORMATION: This is a proposed extension of the ICR, which is currently approved through April 30, 2024. An agency may not conduct or sponsor and a person is not required to respond to a collection of information unless it displays a currently valid OMB control number.

This notice allows 60 days for public comments. Supporting documents, which explain in detail the information that the EPA will be collecting, are available in the public docket for this ICR. The docket can be viewed online at www.regulations.gov or in person at the EPA Docket Center, WJC West, Room 3334, 1301 Constitution Ave. NW, Washington, DC. The telephone number for the Docket Center is 202-566-1744. For additional information about EPA's public docket, visit <http://www.epa.gov/dockets>.

Pursuant to section 3506(c)(2)(A) of the PRA, EPA is soliciting comments and information to enable it to: (i) Evaluate whether the proposed collection of information is necessary for the proper performance of the functions of the Agency, including whether the information will have practical utility; (ii) evaluate the accuracy of the Agency's estimate of the burden of the proposed collection of information, including the validity of the methodology and assumptions used; (iii) enhance the quality, utility, and clarity of the information to be collected; and (iv) minimize the burden of the collection of information on those who are to respond, including through the use of appropriate forms of information technology. EPA will consider the comments received and

amend the ICR as appropriate. The final ICR package will then be submitted to OMB for review and approval. At that time, EPA will issue another **Federal Register** notice to announce the submission of the ICR to OMB and the opportunity to submit additional comments to OMB.

Abstract: Section 3002 of RCRA requires hazardous waste generators to report, at least every 2 years, the quantity and nature of hazardous waste generated and managed during that reporting cycle. Section 3004 requires treatment, storage, and disposal facilities (TSDFs) to report any waste received. This is mandatory reporting. The information is collected via the Hazardous Waste Report (EPA Form 8700-13 A/B). This form is also known as the "Biennial Report" form.

Section 3010 of RCRA requires any person who generates or transports regulated waste or who owns or operates a facility for the treatment, storage, or disposal of regulated waste to notify the EPA of their activities, including the location and general description of activities and the regulated wastes handled. The entity is then issued an EPA Identification number. Entities use the Notification Form (EPA Form 8700-12) to notify EPA of their hazardous waste activities. This form is also known as the "Notification" form.

Section 3005 of RCRA requires TSDFs to obtain a permit. To obtain the permit, the TSDF must submit an application describing the facility's operation. The RCRA Hazardous Waste Part A Permit Application form (EPA Form 8700-23) defines the processes to be used for treatment, storage, and disposal of hazardous wastes; the design capacity of such processes; and the specific hazardous wastes to be handled at the facility. This form is also known as the "Part A" form.

Form Numbers: EPA form numbers 8700-12, 8700-13A/B, and 8700-23.

Respondents/affected entities: Business or other for-profit as well as State, local, or Tribal governments.

Respondent's obligation to respond: Mandatory (RCRA Sections 3002, 3304, 3005, 3010).

Estimated number of respondents: 66,504.

Frequency of response: Biennially and on occasion.

Total estimated burden: 809,382 hours per year. Burden is defined at 5 CFR 1320.03(b).

Total estimated cost: \$402,545 (per year), includes \$343,016 annualized capital or operation & maintenance costs.

Changes in Estimates: The burden hours are likely to stay substantially the same.

Dated: August 31, 2023.

Carolyn Hoskinson,

Director, Office of Resource Conservation and Recovery.

[FR Doc. 2023-19178 Filed 9-5-23; 8:45 am]

BILLING CODE 6560-50-P

FEDERAL RESERVE SYSTEM

Change in Bank Control Notices; Acquisitions of Shares of a Savings and Loan Holding Company

The notificants listed below have applied under the Change in Bank Control Act ("Act") (12 U.S.C. 1817(j)) and of the Board's Regulation LL (12 CFR 238.31) to acquire shares of a savings and loan holding company. The factors that are considered in acting on the notices are set forth in paragraph 7 of the Act (12 U.S.C. 1817(j)(7)).

The public portions of the applications listed below, as well as other related filings required by the Board, if any, are available for immediate inspection at the Federal Reserve Bank(s) indicated below and at the offices of the Board of Governors. This information may also be obtained on an expedited basis, upon request, by contacting the appropriate Federal Reserve Bank and from the Board's Freedom of Information Office at <https://www.federalreserve.gov/foia/request.htm>. Interested persons may express their views in writing on the standards enumerated in paragraph 7 of the Act.

Comments regarding each of these applications must be received at the Reserve Bank indicated or the offices of the Board of Governors, Ann E. Misback, Secretary of the Board, 20th Street and Constitution Avenue NW, Washington, DC 20551-0001, not later than September 21, 2023.

A. Federal Reserve Bank of Kansas City Jeffrey Ingarten, Assistant Vice President, One Memorial Drive, Kansas City, Missouri 64198, Comments can also be sent electronically to KCAApplicationComments@kc.frb.org:

1. **Kathryn R. Ryan, Cherry Hills Village, Colorado, and Martha E. Records, Denver, Colorado;** to become co-trustees of the George J. and Nancy J. Records 1990 Irrevocable Trust;

Todd A. Dobson, Oklahoma City, Oklahoma; to become trustee or co-trustee of the Kathryn R. Ryan 2012 Family Trust, Kathryn R. Ryan 2020 Family Trust, and Martha E. Records 2020 Family Trust;

Raymond Kido, Paradise Valley, Arizona, and Anat Bird, Scottsdale, Arizona; to become co-trustees of the G. Jeffrey Records, Jr. 2003 Family Trust; G. Jeffrey Records, Jr. 2004 Family Trust (KRR); G. Jeffrey Records, Jr. 2004 Family Trust (MER); G. Jeffrey Records, Jr. 2008 GST Exempt Family Trust; and 2012 Dorchester Trust; and

Anat Bird; to also become co-trustee of the G. Jeffrey Records, Jr. 2020 Family Trust.

As a result, each of the above-listed individuals would indirectly acquire control of voting shares of Midland Financial Co. and thereby indirectly acquire control of voting shares of Midfirst Bank, both of Oklahoma City, Oklahoma.

Board of Governors of the Federal Reserve System.

Michele Taylor Fennell,

Deputy Associate Secretary of the Board.

[FR Doc. 2023–19196 Filed 9–5–23; 8:45 am]

BILLING CODE 6210–01–P

FEDERAL TRADE COMMISSION

Agency Information Collection Activities; Proposed Collection; Comment Request

AGENCY: Federal Trade Commission.

ACTION: Notice.

SUMMARY: In accordance with the Paperwork Reduction Act of 1995 (“PRA”), the Federal Trade Commission (“FTC” or “Commission”) is seeking public comments on its proposal to seek Office of Management and Budget (“OMB”) clearance for information collection requirements contained in the Federal Cigarette Labeling and Advertising Act, which requires the FTC to review plans for the rotation of health warnings on cigarette packaging and advertising. The proposed clearance request will be submitted to OMB for review following this opportunity for public comment. The current clearance expires on January 31, 2024, and the FTC intends to seek OMB renewal for three years.

DATES: Comments must be received on or before November 6, 2023.

ADDRESSES: Interested parties may file a comment online or on paper, by following the instructions in the Request for Comment part of the **SUPPLEMENTARY INFORMATION** section below. Write: “Surgeon General’s Cigarette Health Warnings: Paperwork Comment, FTC File No. P854505” on your comment, and file your comment online at <https://www.regulations.gov> by following the instructions on the web-

based form. If you prefer to file your comment on paper, mail your comment to the following address: Federal Trade Commission, Office of the Secretary, 600 Pennsylvania Avenue NW, Suite CC–5610 (Annex J), Washington, DC 20580.

FOR FURTHER INFORMATION CONTACT:

Shira Modell, General Attorney, Division of Advertising Practices, Bureau of Consumer Protection, (202) 725–2162, smodell@ftc.gov.

SUPPLEMENTARY INFORMATION:

A. Background

The Federal Cigarette Labeling and Advertising Act, 15 U.S.C. 1331 *et seq.* (2006 ed.) (“FCLAA”), prohibits cigarette manufacturers and importers from manufacturing, packaging, importing for sale, or distributing cigarettes within the United States unless the packages bear one of four statutorily-prescribed Surgeon General’s health warnings. 15 U.S.C. 1333(a). Cigarette advertising by any of these entities must also bear statutorily-prescribed health warnings. *Id.* Section 1333(b) sets forth the location and format requirements for the health warnings on both packaging and advertising.

The FCLAA further provides that the health warnings “shall be rotated by each manufacturer or importer . . . quarterly in alternating sequence on packages of each brand of cigarettes manufactured by the manufacturer or importer and in the advertisements for each such brand of cigarettes in accordance with a plan submitted by the manufacturer or importer and approved by the Federal Trade Commission.” 15 U.S.C. 1333(c)(1).

The FCLAA does provide an alternative to the requirement of quarterly rotation on cigarette packaging for manufacturers and importers whose sales satisfy two criteria.¹ These manufacturers and importers can seek approval to display the Surgeon General’s warnings on a particular cigarette brand style² “an equal number of times within the twelve-month period beginning on the date of the approval by the Commission of the application” (hereinafter referred to as “equalization”). 15 U.S.C. 1333(c)(2)(C). In order to qualify for equalization, the

sales of a manufacturer or importer must meet the following two criteria:

- (i) the number of cigarettes of such brand style sold in the fiscal year of the manufacturer or importer preceding the submission of the application is less than one-fourth of 1 percent of all the cigarettes sold in the United States in such year, and
- (ii) more than one-half of the cigarettes manufactured or imported by such manufacturer or importer for sale in the United States are packaged into brand styles which meet the requirements of clause (i).

15 U.S.C. 1333(c)(2)(A). A manufacturer or importer can seek permission to equalize the display of the warnings on some of its brand styles, even if other brand styles do not qualify for equalization and are therefore subject to quarterly rotation.

Pursuant to the FCLAA, cigarette manufacturers and importers submit plans to the Commission explaining how they intend to comply with the statutory requirement to display the Surgeon General’s warnings on their packaging.³ If the company will be rotating the warnings on a quarterly basis, its plan must identify each of its brands and brand styles and include a schedule (or other explanation) showing the warning that will be assigned to each brand during each quarter of the year. The company must also specify when in the manufacturing process it will consult its rotation schedule for that particular brand in order to assign the appropriate quarterly warning.

If the company wishes to use the option provided by section 1333(c)(2) and display the four warnings an equal number of times during the year on the packaging of certain brand styles, its plan must provide information sufficient to show that its sales satisfy both of the criteria in 15 U.S.C. 1333(c)(2)(A). It must also explain how it will ensure that all four warnings will be equally displayed during the one-year period beginning on the date the plan is approved—for example, by using printing plates that produce an even number of all four warnings simultaneously on each print run. Finally, because the statute authorizes approval for equalization only for one year, *see* 15 U.S.C. 1333(c)(2)(C), the

³ Manufacturers and importers must also submit samples of actual packaging for any new cigarette brands or brand styles, or samples of new packaging for existing brands or brand styles. However, this requirement is not subject to clearance under the Paperwork Reduction Act (“PRA”). Such packaging samples do not constitute “information” for purposes of the PRA because they merely constitute “samples of . . . physical objects.” *See* 5 CFR 1320.3(h)(2). Accordingly, the burden associated with the submission of any such samples is not reflected in the Commission’s burden analysis below.

¹ There is no comparable alternative to quarterly rotation for cigarette advertising.

² The statute defines “brand style” as “a variety of cigarettes distinguished by the tobacco used, tar and nicotine content, flavoring used, size of the cigarette, filtration on the cigarette, or packaging.” 15 U.S.C. 1332(8).

manufacturer or importer must submit a new plan annually demonstrating that its sales continue to qualify for equalization.

Manufacturers and importers who intend to engage in advertising must provide the Commission with a rotation schedule for the four statutorily-prescribed warnings for each brand they intend to advertise. They also must provide an example of each of the warning statement formats they will use, which vary based on the size of their advertisement,⁴ and specify how they will determine which warnings will appear on different kinds of advertisements and how they will handle advertisements that feature more than one of the company's brands.

Since the information collection is statutorily prescribed, the need for OMB clearance was not necessarily apparent.⁵ Nonetheless, the FTC recently decided to obtain OMB clearance for this statutorily-mandated information collection. Accordingly, on July 28, 2023, the FTC obtained OMB's approval of an expedited provisional clearance for this information collection (OMB Control Number: 3084-0175, Title: Information Collection under the Federal Cigarette Labeling and Advertising Act), and, under 5 CFR 1320.13(d), a waiver of the requirement to publish a notice of the emergency clearance request. As required by section 3506(c)(2)(A) of the PRA, the FTC is providing this opportunity for public comment before submitting the information collection to OMB for its nonprovisional clearance.

B. Burden Statement

Affected Public: Private Sector: Businesses and other for-profit entities.

Estimated Annual Burden Hours: 336.
Estimated Annual Labor Costs:

\$23,382.

Estimated Annual Non-Labor Costs: \$0.

⁴ The formats and sizes of the warnings that the Commission uses to enforce the requirements for advertisements are set forth in acetate exhibits. Electronic versions of the acetates with the required warning statement formats are available on the Commission's website.

⁵ An agency's failure to obtain OMB clearance for a statutorily-mandated information collection requirement does not appear to excuse a respondent's failure to comply with the requirement. *Accord* 5 CFR 1320.6(e) (establishing that, for purposes of information collection requirements that are imposed by statute, an agency's failure to comply with the requirements of the PRA does not amount to a defense against the assessment of a penalty); *U.S. v. Ionia Management S.A.*, 498 F. Supp. 2d 477, 489 (D. Conn. 2007) (discussing that, for purposes of information collection requirements that are imposed by statute, an agency's failure to comply with the requirements of the PRA does not excuse a person's failure to comply with the requirement).

I. Estimated Burden Hours

FTC staff's estimate of the burden hours is based on the time required for an applicant to prepare a plan seeking the Commission's approval for display of the Surgeon General's health warnings on its packages and advertising (assuming it plans to engage in advertising). During the period from 2020 to 2022, the Commission approved a total of 124 plans. In 2022, all 44 of the plans approved by the Commission included a request for equalization of the warning labels on at least some brand styles, and thus, the submission of sales information for those brand styles.

Manufacturers and importers who are approved for quarterly rotation of the warnings on their packaging do not have to submit new plans unless and until they intend to add new brands or brands styles or new types of advertising to their existing plans. As explained above, manufacturers and importers that are approved to use the alternative to quarterly rotation on their packaging must refile each year so the Commission can assess whether they remain eligible to equalize the warnings. They also must file new plans if they add new brands or brand styles to their existing plans; once the company has obtained approval for its initial plan, however, it should need less time in subsequent years to prepare those updates. Moreover, the sales information required to prove eligibility for the alternative to quarterly rotation is readily available to the applicant.

FTC staff recognizes that preparation of a plan by a manufacturer or importer that has not previously submitted one will take somewhat more time than either preparation of essentially the same plan with updated sales figures in subsequent years, or preparation of a very similar plan that modifies a previously-approved plan (e.g., adding new brand styles). However, plans can be short (e.g., 2-page) letters, and numerous examples of plans already approved by the Commission are available on the Commission's website. Thus, as an approximation, FTC staff believes that, on average, each submission will take respondents 8 hours to prepare and submit. As FTC staff receives, on average, 42 responses related to the FCLAA's information collection requirements per year, this yields an annual burden of 336 hours (42 responses × 8 hours per response).

2. Estimated Annual Labor Costs

FTC staff's experience is that most of the plans it receives are submitted by, or on behalf of, relatively small

companies (as evidenced by the fact that all of the plans received in 2022 included requests for label equalization). Roughly half of the plans are submitted by non-legal company personnel, the other half by attorneys. FTC staff is assuming an average \$69.59/hour wage, based on mean hourly wages listed by the U.S. Bureau of Labor Statistics 2022 Occupational Employment and Wage Statistics for lawyers (\$80.11) and general and operations managers (\$59.07).⁶ Using this figure, this yields a burden of \$23,382 per year (336 hours × \$69.59).

3. Estimated Annual Non-Labor Costs

FTC staff believes that the capital or other non-labor costs associated with the information requests are minimal.

C. Request for Comment

Pursuant to Section 3506(c)(2)(A) of the PRA, the FTC invites comments on: (1) whether the disclosure and recordkeeping requirements are necessary, including whether the information will be practically useful; (2) the accuracy of our burden estimates, including whether the methodology and assumptions used are valid; (3) ways to enhance the quality, utility, and clarity of the information to be collected; and (4) ways to minimize the burden of the collection of information.

For the FTC to consider a comment, we must receive it on or before November 6, 2023. Your comment, including your name and your state, will be placed on the public record of this proceeding, including the <https://www.regulations.gov> website.

If you file your comment on paper, write "Surgeon General's Cigarette Health Warnings: Paperwork Comment, FTC File No. P854505" on your comment and on the envelope, and mail it to the following address: Federal Trade Commission, Office of the Secretary, 600 Pennsylvania Avenue NW, Suite CC-5610 (Annex J), Washington, DC 20580.

Because your comment will become publicly available at <https://www.regulations.gov>, you are solely responsible for making sure that your comment does not include any sensitive or confidential information. In particular, your comment should not include any sensitive personal information, such as your or anyone

⁶ This is derived from the average of the U.S. Bureau of Labor Statistics Occupational Employment and Wage Statistics (May 2022) hourly wages for lawyers/legal services (\$80.11) and general and operations managers (\$59.07), as roughly half of the plans submitted to the Commission are signed by attorneys and half by non-attorneys. https://www.bls.gov/oes/current/oes_stru.htm (Tables 23-1011, 11-1021).

else's Social Security number; date of birth; driver's license number or other state identification number, or foreign country equivalent; passport number; financial account number; or credit or debit card number. You are also solely responsible for making sure that your comment does not include any sensitive health information, such as medical records or other individually identifiable health information. In addition, your comment should not include any "trade secret or any commercial or financial information which . . . is privileged or confidential"—as provided by section 6(f) of the FTC Act, 15 U.S.C. 46(f), and FTC Rule 4.10(a)(2), 16 CFR 4.10(a)(2)—including, in particular, competitively sensitive information, such as costs, sales statistics, inventories, formulas, patterns, devices, manufacturing processes, or customer names.

Comments containing material for which confidential treatment is requested must (1) be filed in paper form, (2) be clearly labeled "Confidential," and (3) comply with FTC Rule 4.9(c). In particular, the written request for confidential treatment that accompanies the comment must include the factual and legal basis for the request and must identify the specific portions of the comment to be withheld from the public record. See FTC Rule 4.9(c). Your comment will be kept confidential only if the General Counsel grants your request in accordance with the law and the public interest. Once your comment has been posted publicly at www.regulations.gov, we cannot redact or remove your comment unless you submit a confidentiality request that meets the requirements for such treatment under FTC Rule 4.9(c), and the General Counsel grants that request.

The FTC Act and other laws that the Commission administers permit the collection of public comments to consider and use in this proceeding as appropriate. The Commission will consider all timely and responsive public comments that it receives on or before November 6, 2023. For information on the Commission's privacy policy, including routine uses permitted by the Privacy Act, see <https://www.ftc.gov/site-information/privacy-policy>.

Josephine Liu,

Assistant General Counsel for Legal Counsel.

[FR Doc. 2023–19185 Filed 9–5–23; 8:45 am]

BILLING CODE 6750–01–P

DEPARTMENT OF DEFENSE

GENERAL SERVICES ADMINISTRATION

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

[OMB Control No. 9000–0199; Docket No. 2023–0053; Sequence No. 5]

Submission for OMB Review; Prohibition on Contracting for Certain Telecommunications and Video Surveillance Services or Equipment

AGENCY: Department of Defense (DOD), General Services Administration (GSA), and National Aeronautics and Space Administration (NASA).

ACTION: Notice.

SUMMARY: Under the provisions of the Paperwork Reduction Act, the Regulatory Secretariat Division has submitted to the Office of Management and Budget (OMB) a request to review and approve a revision of a previously approved information collection requirement regarding Prohibition on Contracting for Certain Telecommunications and Video Surveillance Services or Equipment.

DATES: Submit comments on or before October 6, 2023.

ADDRESSES: Written comments and recommendations for this information collection should be sent within 30 days of publication of this notice to www.reginfo.gov/public/do/PRAMain. Find this particular information collection by selecting "Currently under Review—Open for Public Comments" or by using the search function.

Additionally, submit a copy to GSA through <https://www.regulations.gov> and follow the instructions on the site. This website provides the ability to type short comments directly into the comment field or attach a file for lengthier comments.

Instructions: All items submitted must cite OMB Control No. 9000–0199, Prohibition on Contracting for Certain Telecommunications and Video Surveillance Services or Equipment. Comments received generally will be posted without change to <https://www.regulations.gov>, including any personal and/or business confidential information provided. To confirm receipt of your comment(s), please check www.regulations.gov, approximately two-to-three days after submission to verify posting. If there are difficulties submitting comments, contact the GSA Regulatory Secretariat Division at 202–501–4755 or GSARegSec@gsa.gov.

FOR FURTHER INFORMATION CONTACT:

Malissa Jones, Procurement Analyst, at telephone 571–882–4687, or malissa.jones@gsa.gov.

SUPPLEMENTARY INFORMATION:

A. OMB Control Number, Title, and Any Associated Form(s)

9000–0199, Prohibition on Contracting for Certain Telecommunications and Video Surveillance Services or Equipment.

B. Needs and Uses

DoD, GSA, and NASA are combining OMB Control Nos. for the Federal Acquisition Regulation (FAR) by FAR part. This consolidation is expected to improve industry's ability to easily and efficiently identify burdens associated with a given FAR part. The review of the information collections by FAR part allows improved oversight to ensure there is no redundant or unaccounted for burden placed on industry. Lastly, combining information collections in a given FAR part is also expected to reduce the administrative burden associated with processing multiple information collections.

This justification supports the revision of OMB Control No. 9000–0199 and combines it with the previously approved information collections under OMB Control Nos. 9000–0201, with the title "Prohibition on Contracting for Certain Telecommunications and Video Surveillance Services or Equipment". Upon approval of this consolidated information collection, OMB Control Nos. 9000–0201 will be discontinued. The burden requirements previously approved under the discontinued numbers will be covered under OMB Control No. 9000–0199.

This clearance covers the information that offerors and contractors must submit to comply with the following FAR requirements listed in the order in which offerors and contractors provide the information:

- FAR 52.204–26, *Covered Telecommunications Equipment or Services—Representation*. This provision requires offerors to:

- Review the list of excluded parties in SAM for entities excluded from receiving Federal awards for "covered telecommunications equipment or services".

- Represent whether it does or does not provide covered telecommunications equipment or services as a part of its offered products or services to the Government in the performance of any contract, subcontract, or other contractual instrument.

○ Represents whether it does, or does not *use* covered telecommunications equipment or services, or any equipment, system, or service that uses covered telecommunications equipment or services.

• *FAR 52.204–24, Representation Regarding Certain Telecommunications and Video Surveillance Services or Equipment.* This provision requires offerors to respond only if the offeror represented that it “does *provide* or *use* covered telecommunications equipment or services as a part of its offered products or services to the Government in the performance of any contract, subcontract, or other contractual instrument” in paragraphs (c)(1) or (c)(2) of the FAR provision at 52.204–26, or in paragraphs (v)(2)(i) or (ii) of the provision at 52.212–3.

If the offeror is required to respond to this provision, offerors are required to:

○ Review the list of excluded parties in SAM for entities excluded from receiving Federal awards for “covered telecommunications equipment or services,”

○ Represent whether it “will” or “will not” *provide* the covered telecommunications equipment or services to the Government in the performance of any contract, subcontract or other contractual instrument resulting from the solicitation.

■ If the offeror responded that it “will” in the representation in paragraph (d)(1) of this provision, the offeror must provide the following additional disclosure information found at 52.204–24(e)(1) as part of its offer:

• For covered equipment—
○ The entity that produced the covered telecommunications equipment (including entity name, unique entity identifier, Commercial and Government Entity (CAGE) code, and whether the entity was the original equipment manufacturer (OEM) or a distributor, if known);

○ A description of all covered telecommunications equipment offered (including brand; model number, such as OEM number, manufacturer part number, or wholesaler number; and item description, as applicable); and

○ An explanation of the proposed use of covered telecommunications equipment and any factors relevant to determining if such use would be permissible under the prohibition in paragraph (b)(1) of the provision at 52.204–24.

• For covered services—

○ If the service is related to item maintenance: A description of all covered telecommunications services offered (include on the item being

maintained: Brand; model number, such as OEM number, manufacturer part number, or wholesaler number; and item description, as applicable); or

○ If not associated with maintenance, the Product Service Code (PSC) of the service being provided; and an explanation of the proposed use of covered telecommunications services and any factors relevant to determining if such use would be permissible under the prohibition in paragraph (b)(1) of the provision at 52.204–24.

○ Represent whether it “does” or “does not” *use* covered telecommunications equipment or services, or use any equipment, system, or service that uses covered telecommunications equipment or services.

■ If the offeror has responded “does” in the representation in paragraph (d)(2) of this provision, the offeror must provide the following additional disclosure information found at 52.204–24(e)(2):

• For covered equipment—

○ The entity that produced the covered telecommunications equipment (including entity name, unique entity identifier, CAGE code, and whether the entity was the OEM or a distributor, if known);

○ A description of all covered telecommunications equipment offered (including brand; model number, such as OEM number, manufacturer part number, or wholesaler number; and item description, as applicable); and

○ An explanation of the proposed use of covered telecommunications equipment and any factors relevant to determining if such use would be permissible under the prohibition in paragraph (b)(2) of the provision at 52.204–24.

• For covered services—

○ If the service is related to item maintenance: A description of all covered telecommunications services offered (include on the item being maintained: Brand; model number, such as OEM number, manufacturer part number, or wholesaler number; and item description, as applicable); or

○ If not associated with maintenance, the PSC of the service being provided; and an explanation of the proposed use of covered telecommunications services and any factors relevant to determining if such use would be permissible under the prohibition in paragraph (b)(2) of the provision at 52.204–24.

• *FAR 52.204–25, Prohibition on Contracting for Certain Telecommunications and Video Surveillance Services or Equipment.* In the event a contractor identifies covered telecommunications equipment or

services used as a substantial or essential component of any system, or as critical technology as part of any system, during contract performance, or a contractor is notified of such by a subcontractor at any tier or by any other source, this clause requires contractors to:

○ Report the information in paragraph 52.204–25(d)(2) to the contracting officer, unless the contract has established other procedures for reporting the information; in the case of DoD, the contractor shall report to the website at <https://dibnet.dod.mil>.

○ For indefinite delivery contracts, the contractor shall report to the contracting officer for the indefinite delivery contract and the contracting officer(s) for any affected order or, in the case of DoD, identify both the indefinite delivery contract and any affected orders in the report provided at <https://dibnet.dod.mil>.

○ Report the following within one business day from the date of such identification or notification:

■ The contract number;
■ The order number(s), if applicable;
■ Supplier name;
■ Supplier unique entity identifier (if known);
■ Supplier CAGE code (if known);
■ Brand;
■ Model number (original equipment manufacturer number, manufacturer part number, or wholesaler number);
■ Item description;
■ And any readily available information about mitigation actions undertaken or recommended.

○ Report the following within 10 business days of submitting the information in paragraph(d)(2)(i) of this clause:

■ Any further available information about mitigation actions undertaken or recommended.

■ Describe efforts undertaken to prevent use or submission of covered telecommunications equipment or services, and any additional efforts that will be incorporated to prevent future use or submission of covered telecommunications equipment or services.

The information collected is used by contracting officers to identify if an offeror *provides* or *uses* any covered telecommunications equipment or services as a part of its offered products or services to the Government in the performance of any contract, subcontract, or other contractual instrument. In the event that offerors are required to disclose further information, the contracting officer uses the collected information to ensure compliance with the FAR as implemented by statute and

consult with legal counsel and the program office on next steps regarding the prohibited equipment or services.

C. Annual Burden

Respondents: 902,777.

Total Annual Responses: 905,213.

Total Burden Hours: 1,839,573.

D. Public Comment

A 60-day notice was published in the **Federal Register** at 88 FR 42367, on June 30, 2023. No comments were received.

Obtaining Copies: Requesters may obtain a copy of the information collection documents from the GSA Regulatory Secretariat Division, by calling 202-501-4755 or emailing GSARegSec@gsa.gov. Please cite OMB Control No. 9000-0199, Prohibition on Contracting for Certain Telecommunications and Video Surveillance Services or Equipment.

Janet Fry,

*Director, Federal Acquisition Policy Division,
Office of Governmentwide Acquisition Policy,
Office of Acquisition Policy, Office of
Governmentwide Policy.*

[FR Doc. 2023-19148 Filed 9-5-23; 8:45 am]

BILLING CODE 6820-EP-P

GENERAL SERVICES ADMINISTRATION

GSA Acquisition Policy Federal Advisory Committee; Notification of Upcoming Web-Based Public Meeting

AGENCY: Office of Government-Wide Policy (OGP), General Services Administration (GSA).

ACTION: Meeting notice.

SUMMARY: GSA is providing notice of a meeting of the GSA Acquisition Policy Federal Advisory Committee (hereinafter “the Committee” or “the GAP FAC”) in accordance with the requirements of the Federal Advisory Committee Act (FACA). This meeting will be open to the public, accessible via webcast. Information on attending and providing written public comment is under the **SUPPLEMENTARY INFORMATION** section.

DATES: The GAP FAC will hold an open public meeting on Thursday, September 21, 2023, from 3:00 p.m. to 4:00 p.m. Eastern Standard Time (EST).

ADDRESSES: The meeting will be accessible via webcast. Registrants will receive the webcast information before the meeting.

FOR FURTHER INFORMATION CONTACT:

Boris Arratia, Designated Federal Officer, OGP, 703-795-0816, or email:

boris.arratia@gsa.gov; or Stephanie Hardison, OGP, 202-258-6823, or email: stephanie.hardison@gsa.gov. Additional information about the Committee, including meeting materials and agendas, are available on-line at <https://gsa.gov/policy-regulations/policy/acquisition-policy/gsa-acquisition-policy-federal-advisory-committee>.

SUPPLEMENTARY INFORMATION:

Purpose of the Meeting

The purpose of this meeting is for the GAP FAC to propose, discuss and vote on committee comments on the Federal Acquisition Regulation (FAR) Council's Proposed Rule on Sustainable Procurement, which is available online at <https://www.federalregister.gov/documents/2023/08/03/2023-16012/federal-acquisition-regulation-sustainable-procurement>.

Meeting Agenda

- Opening Remarks
- Propose and discuss GAP FAC comments on the FAR Council's Proposed Rule on Sustainable Procurement
- Vote on GAP FAC comments
- Closing Remarks and Adjourn

Meeting Registration

This meeting is open to the public and will be accessible by webcast. Registration information is located on the GAP FAC website: <https://www.gsa.gov/policy-regulations/policy/acquisition-policy/gsa-acquisition-policy-federal-advisory-committee>. Public attendees who want to attend virtually will need to register no later than 5:00 p.m. EST, on Wednesday, September 20, 2023 to obtain the meeting webcast information. All registrants will be asked to provide their name, affiliation, and email address. After registration, individuals will receive webcast access information details via email.

Public Comments

Written public comments are being accepted via email at gapfac@gsa.gov. To submit a written public comment, please email at gapfac@gsa.gov and include your name, organization name (if applicable).

Jeffrey A. Koses,

*Senior Procurement Executive, Office of
Acquisition Policy, Office of Government-
wide Policy.*

[FR Doc. 2023-19197 Filed 9-5-23; 8:45 am]

BILLING CODE 6820-RV-P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Centers for Disease Control and Prevention

[Docket No. CDC-2023-0076]

Advisory Committee on Immunization Practices

AGENCY: Centers for Disease Control and Prevention (CDC), Department of Health and Human Services (HHS).

ACTION: Notice and request for comment.

SUMMARY: In accordance with regulatory provisions, the Centers for Disease Control and Prevention (CDC) announces the following meeting of the Advisory Committee on Immunization Practices (ACIP). This meeting is open to the public. Time will be available for public comment.

DATES: The meeting will be held on September 22, 2023, 10 a.m. to 5 p.m., EDT (date and times subject to change; see the ACIP website for updates: <https://www.cdc.gov/vaccines/acip/index.htm>).

Written comments will be received between September 7-21, 2023.

ADDRESSES: You may submit comments, identified by Docket No. CDC-2023-0076, by either of the methods listed below. CDC does not accept comments by email.

- *Federal eRulemaking Portal:* <https://www.regulations.gov>. Follow the instructions for submitting comments.

- *Mail:* Ms. Stephanie Thomas, ACIP Meeting, Centers for Disease Control and Prevention, 1600 Clifton Road NE, Mailstop H24-8, Atlanta, Georgia 30329-4027. Attn: Docket No. CDC-2023-0076.

Instructions: All submissions received must include the Agency name and docket number. All relevant comments received in conformance with the <https://www.regulations.gov> suitability policy will be posted without change to <https://www.regulations.gov>, including any personal information provided. For access to the docket to read background documents or comments received, go to <https://www.regulations.gov>.

The meeting will be webcast live via the World Wide Web. The webcast link can be found on the ACIP website at <https://www.cdc.gov/vaccines/acip/index.html>.

FOR FURTHER INFORMATION CONTACT:

Stephanie Thomas, Committee Management Specialist, Advisory Committee on Immunization Practices, National Center for Immunization and Respiratory Diseases, Centers for Disease Control and Prevention, 1600

Clifton Road NE, Mailstop H24-8,
Atlanta, Georgia 30329-4027.
Telephone: (404) 639-8836; Email:
ACIP@cdc.gov.

SUPPLEMENTARY INFORMATION: *Purpose:* The Advisory Committee on Immunization Practices (ACIP) is charged with advising the Director, Centers for Disease Control and Prevention (CDC), on the use of immunizing agents. In addition, under 42 U.S.C. 1396s, the Committee is mandated to establish and periodically review and, as appropriate, revise the list of vaccines for administration to vaccine-eligible children through the Vaccines for Children program, along with schedules regarding dosing interval, dosage, and contraindications to administration of vaccines. Further, under applicable provisions of the Affordable Care Act and Section 2713 of the Public Health Service Act, immunization recommendations of ACIP that have been approved by the Director, CDC, and appear on CDC immunization schedules generally must be covered by applicable health plans.

Matters to be Considered: The agenda will include discussions of maternal respiratory syncytial virus (RSV) vaccine. A recommendation vote for maternal RSV vaccine is scheduled. A Vaccines for Children vote is scheduled for maternal RSV vaccine. Agenda items are subject to change as priorities dictate. For more information on the meeting agenda, visit <https://www.cdc.gov/vaccines/acip/meetings/index.html>.

Meeting Information: The meeting will be webcast live via the World Wide Web. For more information on ACIP, please visit the ACIP website: <https://www.cdc.gov/vaccines/acip/index.html>.

Public Participation

Interested persons or organizations are invited to participate by submitting written views, recommendations, and data. Please note that comments received, including attachments and other supporting materials, are part of the public record and are subject to public disclosure. Comments will be posted on <https://www.regulations.gov>. Therefore, do not include any information in your comment or supporting materials that you consider confidential or inappropriate for public disclosure. If you include your name, contact information, or other information that identifies you in the body of your comments, that information will be on public display. CDC will review all submissions and may choose to redact, or withhold, submissions containing private or proprietary information such as Social

Security numbers, medical information, inappropriate language, or duplicate/near-duplicate examples of a mass-mail campaign. CDC will carefully consider all comments submitted into the docket.

Written Public Comment: The docket will be opened to receive written comments on September 7, 2023. Written comments must be received by September 21, 2023.

Oral Public Comment: This meeting will include time for members of the public to make an oral comment. Priority will be given to individuals who submit a request to make an oral public comment before the meeting according to the procedures below.

Procedure for Oral Public Comment: All persons interested in making an oral public comment at the September 22, 2023, ACIP meeting must submit a request between September 7, 2023, and September 20, 2023, at <https://www.cdc.gov/vaccines/acip/meetings/index.html> no later than 11:59 p.m., EDT, September 20, 2023, according to the instructions provided.

If the number of persons requesting to speak is greater than can be reasonably accommodated during the scheduled time, CDC will conduct a lottery to determine the speakers for the scheduled public comment session. CDC staff will notify individuals regarding their request to speak by email on September 21, 2023. To accommodate the significant interest in participation in the oral public comment session of ACIP meetings, each speaker will be limited to three minutes, and each speaker may only speak once per meeting.

The Director, Office of Strategic Business Initiatives, Office of the Chief Operating Officer, Centers for Disease Control and Prevention, has been delegated the authority to sign **Federal Register** notices pertaining to announcements of meetings and other committee management activities, for both the Centers for Disease Control and Prevention and the Agency for Toxic Substances and Disease Registry.

Kalwant Smagh,

Director, Office of Strategic Business Initiatives, Office of the Chief Operating Officer, Centers for Disease Control and Prevention.

[FR Doc. 2023-19135 Filed 9-5-23; 8:45 am]

BILLING CODE 4163-18-P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Centers for Disease Control and Prevention

Lead Exposure and Prevention Advisory Committee

AGENCY: Centers for Disease Control and Prevention (CDC), Department of Health and Human Services (HHS).

ACTION: Notice of meeting.

SUMMARY: In accordance with the Federal Advisory Committee Act, the CDC announces the following meeting for the Lead Exposure and Prevention Advisory Committee (LEPAC). This is a hybrid meeting which will occur in person and online and is open to the public. Advance registration by September 29, 2023, is needed to receive the information to attend the meeting. The registration link is provided in the addresses section below.

DATES: The meeting will be held on October 16, 2023, from 9 a.m. to 4:30 p.m., EDT and October 17, 2023, from 9 a.m. to 1 p.m., EDT.

ADDRESSES: Register in advance at <https://forms.office.com/pages/responsepage.aspx?id=eCgFR53Gc0uxesXQDXVjuPeyypfKOR5Gj2Gz6aPXBGpUREZISTBGVjczTFILRU5NUjY0SFNaQTM0UC4u&web=1&wdLOR=c61C32E80-28BF-40D7-AC2D-E113AEFDAA23> to receive information to attend the meeting.

FOR FURTHER INFORMATION CONTACT: Paul Allwood, Ph.D., M.P.H., Designated Federal Officer, National Center for Environmental Health, Centers for Disease Control and Prevention, 4770 Buford Highway, Atlanta, Georgia 30341, Telephone: 770-488-6774; Email: LEPAC@cdc.gov.

SUPPLEMENTARY INFORMATION:

Background: The Lead Exposure and Prevention Advisory Committee was established under Section 2203 of Public Law 114-322, the Water Infrastructure Improvements for the Nation Act; 42 U.S.C. 300j-21, Registry for Lead Exposure and Prevention Advisory Committee.

Purpose: The LEPAC is charged with providing advice and guidance to the Secretary, Department of Health and Human Services (HHS), and the Director, CDC and Administrator, ATSDR, on (1) reviewing Federal programs and services available to individual communities exposed to lead; (2) reviewing current research on lead exposure to identify additional

research needs; (3) reviewing and identifying best practices, or the need for best practices regarding lead screening and the prevention of lead poisoning; (4) identifying effective services, including services relating to healthcare, education, and nutrition for individuals and communities affected by lead exposure and lead poisoning, including in consultation with, as appropriate, the lead exposure registry as established in section 2203(b) of Public Law 114–322; and (5) undertaking any other review or activities that the Secretary determines to be appropriate.

Matters To Be Considered: The agenda will include presentations on the following topics: aligning HUD inspection protocols for assisted housing for the last 20 years, the environmental factors impacting lead reduction, EPA's proposal on lead dust clearance level and hazard standard, updates on blood lead testing instrument, lead related funding opportunities for community-based organizations, state policy actions related to the blood lead reference value, CDC's efforts to increase blood lead testing in children enrolled in Medicaid, and an update from the Preventing Lead Exposure in Adults workgroup. Agenda items are subject to change as priorities dictate.

Public Participation

Oral Public Comment: The public comment period is scheduled on October 16, 2023, from 1:30 p.m. until 2 p.m., and October 17, 2023, from 9:15 a.m. until 9:45 a.m. EDT. Individuals wishing to make a comment during the public comment period, please email your name, organization, and phone number by October 1, 2023, to LEPAC@cdc.gov.

The Director, Office of Strategic Business Initiatives, Office of the Chief Operating Officer, Centers for Disease Control and Prevention, has been delegated the authority to sign **Federal Register** notices pertaining to announcements of meetings and other committee management activities, for both the Centers for Disease Control and Prevention and the Agency for Toxic Substances and Disease Registry.

Kalwant Smagh,

Director, Office of Strategic Business Initiatives, Office of the Chief Operating Officer, Centers for Disease Control and Prevention.

[FR Doc. 2023–19134 Filed 9–5–23; 8:45 am]

BILLING CODE 4163–18–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Centers for Disease Control and Prevention

Meeting of the Community Preventive Services Task Force (CPSTF)

AGENCY: Centers for Disease Control and Prevention (CDC), Department of Health and Human Services (HHS).

ACTION: Notice of meeting.

SUMMARY: The Centers for Disease Control and Prevention, within the Department of Health and Human Services, announces the next meeting of the Community Preventive Services Task Force (CPSTF) on October 18–19, 2023.

DATES: The meeting will be held on Wednesday, October 18, 2023, from 9:00 a.m. to 5:00 p.m. EDT, and Thursday, October 19, 2023, from 9:00 a.m. to 5:00 p.m. EDT.

ADDRESSES: The meeting will be available to the public via web conference.

FOR FURTHER INFORMATION CONTACT:

Kenya Turner, Office of Science, Office of Scientific Evidence and Recommendations, Community Guide Program; Centers for Disease Control and Prevention, 1600 Clifton Road NE, MS–H21–10, Atlanta, GA 30329. Telephone: (404) 718–4592; Email: CPSTF@cdc.gov.

SUPPLEMENTARY INFORMATION:

Meeting Accessibility: The CPSTF meeting will be shown via web conference.

All meeting attendees must register by October 11, 2023. CDC will email web conference login information and the agenda to registrants from the CPSTF@cdc.gov mailbox approximately two weeks before the meeting start date.

To register for the meeting, individuals should send an email to CPSTF@cdc.gov and include the following information: name, title, organization name, organization address, phone, and email.

Public Comment: Individuals who would like to make public comments during the October meeting must state their desire to do so in an email to the CPSTF@cdc.gov mailbox no later than October 11, 2023. The request should include name, organizational affiliation, and topic to be addressed. Public comment must be relevant to one of the topics proposed for the meeting. The requestor will receive instructions related to the public comment process for this meeting after the request is received. A public comment period

follows the CPSTF's discussion of each systematic review and will be limited to no more than three minutes per person. Public comments may be used to inform task force discussions and will be included in the meeting summary.

Background on the CPSTF: The CPSTF is an independent, nonfederal panel whose members are appointed by the CDC Director. CPSTF members represent a broad range of research, practice, and policy expertise in prevention, wellness, health promotion, and public health. The CPSTF was convened in 1996 by HHS to identify community preventive programs, services, and policies that increase health and longevity, save lives and dollars, and improve Americans' quality of life. CDC is mandated to provide ongoing administrative, research, and technical support for the operations of the CPSTF. During its meetings, the CPSTF considers the findings of systematic reviews of existing research and practice-based evidence, and issues recommendations. CPSTF recommendations are not mandates for compliance or spending. Instead, they provide information about evidence-based options that decision makers and affected community members can consider when they are determining what best meets the specific needs, preferences, available resources, and constraints of their jurisdictions and constituents. The CPSTF's recommendations, along with the systematic reviews of the evidence on which they are based, are compiled on the Community Guide website (www.thecommunityguide.org).

Matters proposed for discussion: The agenda will consist of deliberation on systematic reviews of literature. Topics proposed for the October 2023 meeting include cancer, preparedness and response, social determinants of health, and substance use. Changes regarding the start and end times for each day, and any updates to agenda topics, will be available on the Community Guide website (www.thecommunityguide.org) closer to the date of the meeting. The meeting agenda is subject to change without notice.

Tiffany Brown,

Executive Secretary, Centers for Disease Control and Prevention.

[FR Doc. 2023–19150 Filed 9–5–23; 8:45 am]

BILLING CODE 4163–18–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Centers for Disease Control and Prevention

Performance Review Board Members

AGENCY: Centers for Disease Control and Prevention (CDC), Department of Health and Human Services (HHS).

ACTION: Notice.

SUMMARY: The Centers for Disease Control and Prevention (CDC) located within the Department of Health and Human Services (HHS) is publishing the names of the Performance Review Board Members who are reviewing performance of Senior Executive Service members, Title 42 executives, Senior Level, and Scientific Professional employees for Fiscal Year 2023.

FOR FURTHER INFORMATION CONTACT: Eva Harrison, Human Resources Office, Centers for Disease Control and Prevention, 1600 Clifton Road NE, MS US11-2, Atlanta, Georgia 30329-4027, Telephone (404) 783-7410.

SUPPLEMENTARY INFORMATION: Title 5, U.S.C. 4314(c)(4) of the Civil Service Reform Act of 1978, Public Law 95-454, requires that the appointment of Performance Review Board Members be published in the **Federal Register**. The following persons will serve on the CDC Performance Review Board, which will oversee the evaluation of performance appraisals of Senior Executive Service members for the fiscal year 2023 review period:

Bonander, Jason
Dauphin, Leslie
Dulin, Stephanie
Durst, Kelley
Ethier, Kathleen, Co-Chair
Kuhnert, Wendi
Lindsey, Ronney L.
Peeples, Amy
Perry, Terrance
Taylor, Dia, Co-Chair
Tomlinson, Hank
Wharton, Melinda

Dated: August 31, 2023.

Tiffany Brown,

Executive Secretary, Centers for Disease Control and Prevention.

[FR Doc. 2023-19166 Filed 9-5-23; 8:45 am]

BILLING CODE 4163-18-P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Centers for Medicare & Medicaid Services

Privacy Act of 1974; Matching Program

AGENCY: Center for Consumer Information and Insurance Oversight (CCIIO), Centers for Medicare & Medicaid Services (CMS), Department of Health and Human Services (HHS).

ACTION: Notice of a new matching program.

SUMMARY: In accordance with the Privacy Act of 1974, as amended, the Department of Health and Human Services (HHS), Centers for Medicare & Medicaid Services (CMS) is providing notice of the re-establishment of a data exchange program between CMS and the Department of Homeland Security (DHS), United States Citizenship and Immigration Services (USCIS), “Verification of United States Citizenship and Immigration Status Data for Eligibility Determinations.”

DATES: The deadline for comments on this notice is October 6, 2023. The program will commence not sooner than 30 days after publication of this notice, provided that no comments are received that warrant a change to this notice. The program will be conducted for an initial term of 18 months (from approximately October 20, 2023, to April 19, 2025) and within three months of expiration may be renewed for one additional year if the parties make no change to the program and certify that the program has been conducted in compliance with the agreement.

ADDRESSES: Interested parties may submit comments on the new program to the CMS Privacy Act Officer by mail at: Division of Security, Privacy Policy & Governance, Information Security & Privacy Group, Office of Information Technology, Centers for Medicare & Medicaid Services, 7500 Security Blvd., Baltimore, MD 21244-1850, Mailstop: N1-14-56, or by email at Barbara.Demopulos@cms.hhs.gov.

FOR FURTHER INFORMATION CONTACT: If you have questions about the program, you may contact Anne Pesto, Senior Advisor, Marketplace Eligibility and Enrollment Group, Center for Consumer Information and Insurance Oversight, Centers for Medicare & Medicaid Services, at 443-844-9966, by email at anne.pesto@cms.hhs.gov, or by mail at 7500 Security Blvd., Baltimore, MD 21244.

SUPPLEMENTARY INFORMATION: The Privacy Act of 1974, as amended (5

U.S.C. 552a) provides certain protections for individuals applying for and receiving federal benefits. The law governs the use of computer matching by federal agencies when records in a system of records (meaning, federal agency records about individuals retrieved by name or other personal identifier) are matched with records of other federal or non-federal agencies. In carrying out this Agreement, both Parties will follow requirements that apply to System of Records, and HHS will carry out all of the requirements that apply to matching programs—under the Privacy Act as amended (5 U.S.C. 552a) and the regulations and guidance promulgated thereunder, including Office of Management and Budget (OMB) Circular A-108 “Federal Agency Responsibilities for Review, Reporting, and Publication under the Privacy Act” published at 81 FR 94424 (Dec. 23, 2016) and other OMB guidelines. The DHS Data Integrity Board has not approved this program, but DHS/USCIS has approved the data exchange agreement.

The Privacy Act requires agencies involved in a program that meets the definition of a “matching program” in 5 U.S.C. 552a(a)(8) to comply with the below requirements. HHS will provide all of the required protections to:

1. Enter into a written agreement, provide a copy of the agreement to Congress and the Office of Management and Budget (OMB), and make it available to the public, as required by 5 U.S.C. 552a(o), (u)(3)(A), and (u)(4).
2. Notify the individuals whose information will be used in the matching program that the information they provide is subject to verification through matching, as required by 5 U.S.C. 552a(o)(1)(D).
3. Verify match findings before suspending, terminating, reducing, or making a final denial of an individual’s benefits or payments or taking other adverse action against the individual, as required by 5 U.S.C. 552a(p).
4. Report the matching program to Congress and the OMB, in advance and annually, as required by 5 U.S.C. 552a(o) (2)(A)(i), (r), and (u)(3)(D).
5. Publish advance notice of the matching program in the **Federal Register** as required by 5 U.S.C. 552a(e)(12).

Barbara Demopulos,

Privacy Act Officer, Division of Security, Privacy Policy and Governance, Office of Information Technology, Centers for Medicare & Medicaid Services.

Participating Agencies

The Department of Health and Human Services (HHS), Centers for Medicare &

Medicaid Services (CMS) is the recipient agency, and the Department of Homeland Security (DHS), United States Citizenship and Immigration Services (USCIS) is the source agency.

Authority for Conducting the Matching Program

The principal authority for conducting the program is 42 U.S.C. 18001 *et seq.*

Purpose(s)

The program will provide CMS with USCIS data which CMS and state-based administering entities will use to determine individuals' eligibility for:

- initial enrollment in a Qualified Health Plan through an Exchange established under the Patient Protection and Affordable Care Act as amended by the Health Care and Education Reconciliation Act (42 U.S.C. 18001 *et seq.*);
- Insurance Affordability Programs (IAPs);
- certificates of exemption from the shared responsibility payment; and
- redeterminations and renewal decisions, including appeal determinations.

IAPs include advance payments of the premium tax credit and cost sharing reductions; Medicaid; Children's Health Insurance Program; and Basic Health Program.

Categories of Individuals

The individuals whose information will be used in the program are consumers (applicants and enrollees) who receive the eligibility determinations and redeterminations described in the preceding PURPOSE(S) section.

Categories of Records

The categories of records used in the program are identity, citizenship, and immigration status records. The data elements are described below.

To request information from USCIS, CMS will query USCIS' Systematic Alien Verification for Entitlements (SAVE) system using these data elements: Last Name; First Name; Middle Name; Date of Birth; One or More Immigration Number(s) (*e.g.*, Alien Registration/USCIS Number, Arrival-Departure Record I-94 Number, SEVIS ID Number, Certificate of Naturalization Number, Certificate of Citizenship Number, or Unexpired Foreign Passport Number); and Other Information from Immigration Documentation (*e.g.* Country of Birth, Date of Entry, Employment Authorization Category).

When the above-listed data that CMS uses to query the SAVE system matches

USCIS data in SAVE, USCIS will return query results to CMS that include these additional data elements about each individual, as relevant: Verification Case Number; Citizenship or Immigration Data (*e.g.*, immigration status/category, immigration class of admission, and/or employment authorization); and Sponsorship Data (*e.g.*, name, address, and Social Security number of Form I-864/I-864EZ sponsors and Form I-864A household members, when applicable).

System(s) of Records

The records used in this program will be disclosed from the following systems of records, as authorized by routine uses published in the System of Records Notices (SORNs) cited below:

- CMS Health Insurance Exchanges System (HIX), System No. 09-70-0560, last published in full at 78 FR 63211 (Oct. 23, 2013) and amended at 83 FR 6591 (Feb. 14, 2018). Routine use 3 permits CMS' disclosures to USCIS.
- DHS/USCIS-004 Systematic Alien Verification for Entitlements Program, 85 FR 31798 (May 27, 2020). Routine use I permits USCIS' disclosures to CMS.

[FR Doc. 2023-19174 Filed 9-5-23; 8:45 am]

BILLING CODE 4120-03-P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Centers for Medicare & Medicaid Services

[CMS-3438-FN]

Medicare and Medicaid Programs: Application From the Accreditation Commission for Healthcare (ACHC) for Continued CMS-Approval of Its Hospital Accreditation Program

AGENCY: Centers for Medicare & Medicaid Services, HHS.

ACTION: Notice.

SUMMARY: This notice announces our decision to approve the Accreditation Commission for Healthcare (ACHC) for continued recognition as a national accrediting organization for hospitals that wish to participate in the Medicare or Medicaid programs.

DATES: The decision announced in this notice is applicable on September 25, 2023 through September 25, 2027.

FOR FURTHER INFORMATION CONTACT: Danielle Adams, (410) 786-8818; or Lillian Williams, (410) 786-8636.

SUPPLEMENTARY INFORMATION:

I. Background

Under the Medicare program, eligible beneficiaries may receive covered services from a hospital provided that certain requirements are met. Section 1861(e) of the Social Security Act (the Act) establishes distinct criteria for facilities seeking designation as a hospital. Regulations concerning provider agreements are at 42 CFR part 489 and those pertaining to activities relating to the survey and certification of facilities are at 42 CFR part 488. The regulations at 42 CFR part 482 specify the minimum conditions that a hospital must meet to participate in the Medicare program.

Generally, to enter into an agreement, a hospital must first be certified by a state survey agency (SA) as complying with the conditions or requirements set forth in 42 CFR part 482 of our regulations. Thereafter, the hospital is subject to regular surveys by a SA to determine whether it continues to meet these requirements.

Section 1865(a)(1) of the Act provides that, if a provider entity demonstrates through accreditation by a Centers for Medicare & Medicaid Services (CMS) approved national accrediting organization (AO) that all applicable Medicare conditions are met or exceeded, we will deem those provider entities as having met the requirements. Accreditation by an AO is voluntary and is not required for Medicare participation.

If an AO is recognized by the Secretary of the Department of Health and Human Services (the Secretary) as having standards for accreditation that meet or exceed Medicare requirements, any provider entity accredited by the national accrediting body's approved program would be deemed to meet the Medicare conditions. A national AO applying for approval of its accreditation program under part 488, subpart A, must provide CMS with reasonable assurance that the AO requires the accredited provider entities to meet requirements that are at least as stringent as the Medicare conditions.

Our regulations concerning the approval of AOs are set forth at §§ 488.4, 488.5 and 488.5(e)(2)(i). The regulations at § 488.5(e)(2)(i) require an AO to reapply for continued approval of its accreditation program every 6 years or sooner as determined by CMS.

The Accreditation Commission for Healthcare's (ACHC) current term of approval for their hospital accreditation program expires September 25, 2023.

II. Application Approval Process

Section 1865(a)(3)(A) of the Act provides a statutory timetable to ensure

that our review of applications for CMS approval of an accreditation program is conducted in a timely manner. The Act provides us 210 days after the date of receipt of a complete application, with any documentation necessary to make the determination, to complete our survey activities and application process. Within 60 days after receiving a complete application, we must publish a notice in the **Federal Register** that identifies the national accrediting body making the request, describes the request, and provides no less than a 30-day public comment period. At the end of the 210-day period, we must publish a notice in the **Federal Register** approving or denying the application.

III. Provisions of the Proposed Notice

On April 14, 2023, we published a proposed notice in the **Federal Register** (88 FR 23088), announcing ACHC's request for continued approval of its Medicare hospital accreditation program. In the April 14, 2023 proposed notice, we detailed our evaluation criteria. Under section 1865(a)(2) of the Act and in our regulations at § 488.5, we conducted a review of ACHC's Medicare hospital accreditation application in accordance with the criteria specified by our regulations, which include, but are not limited to the following:

- An administrative review of ACHC's: (1) corporate policies; (2) financial and human resources available to accomplish the proposed surveys; (3) procedures for training, monitoring, and evaluation of its hospital surveyors; (4) ability to investigate and respond appropriately to complaints against accredited hospital; and (5) survey review and decision-making process for accreditation.

- The comparison of ACHC's Medicare hospital accreditation program standards to our current Medicare hospital conditions of participation (CoPs).

- A documentation review of ACHC's survey process to do the following:

- ++ Determine the composition of the survey team, surveyor qualifications, and ACHC's ability to provide continuing surveyor training.

- ++ Compare ACHC's processes to those we require of state survey agencies, including periodic resurvey and the ability to investigate and respond appropriately to complaints against ACHC accredited hospitals.

- ++ Evaluate ACHC's procedures for monitoring accredited hospitals it has found to be out of compliance with ACHC's program requirements. (This pertains only to monitoring procedures when ACHC identifies non-compliance. If noncompliance is identified by a SA

through a validation survey, the SA monitors corrections as specified at § 488.9(c)).

- ++ Assess ACHC's ability to report deficiencies to the surveyed hospitals and respond to the hospitals plans of correction in a timely manner.

- ++ Establish ACHC's ability to provide CMS with electronic data and reports necessary for effective validation and assessment of the organization's survey process.

- ++ Determine the adequacy of ACHC's staff and other resources.

- ++ Confirm ACHC's ability to provide adequate funding for performing required surveys.

- ++ Confirm ACHC's policies with respect to surveys being unannounced.

- ++ Confirm ACHC's policies and procedures to avoid conflicts of interest, including the appearance of conflicts of interest, involving individuals who conduct surveys or participate in accreditation decisions.

- ++ Obtain ACHC's agreement to provide CMS with a copy of the most current accreditation survey together with any other information related to the survey as we may require, including corrective action plans.

IV. Analysis of and Responses to Public Comments on the Proposed Notice

In accordance with section 1865(a)(3)(A) of the Act, the April 14, 2023, proposed notice also solicited public comments regarding whether ACHC's requirements met or exceeded the Medicare CoPs for hospitals. We received one comment in response to our proposed notice.

The commenter expressed concern about hospital accreditation programs overall and the responsibility of patient safety in hospitals. The comment was not specific to ACHC.

We appreciate this comment and the concern for patient safety and quality of care. We continue to prioritize patient safety and our responsibility for oversight of AOs. As described in Section III, "Provisions of the Proposed Notice" of this final notice, we take various steps when considering to approve or not approve a national AO. Each AO wishing to be recognized by Medicare as a national AO must go through a rigorous process for CMS approval. We remain steadfast in our commitment to keeping the public informed of our evaluation process for AOs seeking approval from CMS.

V. Provisions of the Final Notice

A. Differences Between ACHC's Standards and Requirements for Accreditation and Medicare Conditions and Survey Requirements

We compared ACHC's hospital accreditation requirements and survey process with the Medicare CoPs of 42 CFR part 482, and the survey and certification process requirements of parts 488 and 489. Our review and evaluation of ACHC's hospital accreditation application, which were conducted as described in section III. of this final notice, yielded the following areas where, as of the date of this final notice, ACHC has completed revising its standards and certification processes in order to—

- Meet the standard's requirements of all the following regulations:

- ++ Section 482.22(c)(5)(iii), to fully address the requirement that an assessment of the patient (in lieu of the requirements of paragraphs (c)(5)(i) and (ii) of this section) be completed and documented after registration, but prior to surgery or a procedure requiring anesthesia services, when the patient is receiving specific outpatient surgical or procedural services and when the medical staff has chosen to develop and maintain a policy that identifies, in accordance with the requirements at paragraph (c)(5)(v) of this section, specific patients as not requiring a comprehensive medical history and physical examination, or any update to it, prior to specific outpatient surgical or procedural services. The assessment must be completed and documented by a physician (as defined in section 1861(r) of the Act), an oral and maxillofacial surgeon, or other qualified licensed individual in accordance with State law and hospital policy.

- ++ Section 482.22(c)(5)(iv), to fully address the requirement that the medical staff develop and maintain a policy that identifies those patients for whom the assessment requirements of paragraph (c)(5)(iii) of this section would apply. The provisions of paragraphs (c)(5)(iii), (iv), and (v) of this section do not apply to a medical staff that chooses to maintain a policy that adheres to the requirements of paragraphs of (c)(5)(i) and (ii) of this section for all patients.

- ++ Section 482.22(c)(5)(v), to fully address the requirement that the medical staff, if it chooses to develop and maintain a policy for the identification of specific patients to whom the assessment requirements in paragraph (c)(5)(iii) of this section would apply, must demonstrate evidence that the policy applies only to

those patients receiving specific outpatient surgical or procedural services as well as evidence that the policy is based on.

++ Section 482.41(b)(2), to address the requirements regarding Life Safety Code (LSC) waivers.

++ Section 482.41(b)(7), to address the requirements regarding alcohol-based hand rub (ABHR) dispensers.

In addition to the standards review, CMS also reviewed ACHC's comparable survey processes, which were conducted as described in section III., of this notice, and yielded the following areas where, as of the date of this final notice, ACHC has completed revising its survey processes to demonstrate that it uses survey processes that are comparable to state survey agency processes by:

- Revising the complaint response policies and processes to align with the State Operations Manual, Chapter 5 guidance. ACHC revised its Administrative Review Offsite Investigation process to align with CMS' triage process to track and trend for potential focus areas during the next onsite survey or complete an onsite complaint investigation.

- Revising ACHC's hospital accreditation process policies to include the applicable sections of the Health Care Facilities Code National Fire Protection Agency (NFPA 99) in accordance with section 482.41(c).

- Ensuring that all hospital LSC surveyors have received comparable and adequate training or have sufficient experience to make them qualified to survey health care facilities for compliance with both the 2012 LSC and 2012 NFPA 99 requirements.

- Providing guidance and instruction to surveyors on determining the appropriate level of citation for LSC deficiencies.

B. Term of Approval

Based on our review and observations described in section III. and section V. of this final notice, we approve ACHC as a national accreditation organization for hospitals that request participation in the Medicare program. The decision announced in this final notice is effective September 25, 2023, through September 25, 2027 (4 years). In accordance with § 488.5(e)(2)(i) the term of the approval will not exceed 6 years.

While ACHC has taken actions based on the findings annotated in section V.A., of this final notice, (Differences Between ACHC's Standards and Requirements for Accreditation and Medicare Conditions and Survey Requirements) as authorized under § 488.8, we will continue ongoing

review of ACHC's hospital processes to ensure full implementation and sustained compliance. In keeping with CMS's initiative to increase AO oversight broadly and ensure that our requested revisions by ACHC are fully implemented, CMS expects more frequent review of ACHC's activities in the future.

VI. Collection of Information Requirements

This document does not impose information collection requirements, that is, reporting, recordkeeping or third party disclosure requirements. Consequently, there is no need for review by the Office of Management and Budget under the authority of the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 *et seq.*).

The Administrator of the Centers for Medicare & Medicaid Services (CMS), Chiquita Brooks-LaSure, having reviewed and approved this document, authorizes Evell J. Barco Holland, who is the Federal Register Liaison, to electronically sign this document for purposes of publication in the **Federal Register**.

Dated: August 31, 2023.

Evell J. Barco Holland,

Federal Register Liaison, Centers for Medicare & Medicaid Services.

[FR Doc. 2023-19195 Filed 9-5-23; 8:45 am]

BILLING CODE 4120-01-P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Food and Drug Administration

[Docket No. FDA-2014-D-1981]

Drug Supply Chain Security Act Standards for the Interoperable Exchange of Information for Tracing of Certain Human, Finished, Prescription Drugs; Guidance for Industry; Availability

AGENCY: Food and Drug Administration, HHS.

ACTION: Notice of availability.

SUMMARY: The Food and Drug Administration (FDA or Agency) is announcing the availability of a final guidance for industry entitled "DSCSA Standards for the Interoperable Exchange of Information for Tracing of Certain Human, Finished, Prescription Drugs." This guidance identifies the standards necessary to facilitate adoption of secure, interoperable, electronic data exchange among the pharmaceutical distribution supply chain, and clarifies the trading partners, products, and transactions subject to

such standards. This guidance finalizes the revised draft guidance of the same title, "DSCSA Standards for the Interoperable Exchange of Information for Tracing of Certain Human, Finished, Prescription Drugs," issued in July 2022, as required by the Federal Food, Drug, and Cosmetic Act (FD&C Act).

DATES: The announcement of the guidance is published in the **Federal Register** on September 6, 2023.

ADDRESSES: You may submit either electronic or written comments on Agency guidances at any time as follows:

Electronic Submissions

Submit electronic comments in the following way:

- **Federal eRulemaking Portal:** <https://www.regulations.gov>. Follow the instructions for submitting comments. Comments submitted electronically, including attachments, to <https://www.regulations.gov> will be posted to the docket unchanged. Because your comment will be made public, you are solely responsible for ensuring that your comment does not include any confidential information that you or a third party may not wish to be posted, such as medical information, your or anyone else's Social Security number, or confidential business information, such as a manufacturing process. Please note that if you include your name, contact information, or other information that identifies you in the body of your comments, that information will be posted on <https://www.regulations.gov>.

- If you want to submit a comment with confidential information that you do not wish to be made available to the public, submit the comment as a written/paper submission and in the manner detailed (see "Written/Paper Submissions" and "Instructions").

Written/Paper Submissions

Submit written/paper submissions as follows:

- **Mail/Hand Delivery/Courier (for written/paper submissions):** Dockets Management Staff (HFA-305), Food and Drug Administration, 5630 Fishers Lane, Rm. 1061, Rockville, MD 20852.

- For written/paper comments submitted to the Dockets Management Staff, FDA will post your comment, as well as any attachments, except for information submitted, marked and identified, as confidential, if submitted as detailed in "Instructions."

Instructions: All submissions received must include the Docket No. FDA-2014-D-1981 for "DSCSA Standards for the Interoperable Exchange of Information for Tracing of Certain

Human, Finished, Prescription Drugs.” Received comments will be placed in the docket and, except for those submitted as “Confidential Submissions,” publicly viewable at <https://www.regulations.gov> or at the Dockets Management Staff between 9 a.m. and 4 p.m., Monday through Friday, 240–402–7500.

• **Confidential Submissions**—To submit a comment with confidential information that you do not wish to be made publicly available, submit your comments only as a written/paper submission. You should submit two copies total. One copy will include the information you claim to be confidential with a heading or cover note that states “THIS DOCUMENT CONTAINS CONFIDENTIAL INFORMATION.” The Agency will review this copy, including the claimed confidential information, in its consideration of comments. The second copy, which will have the claimed confidential information redacted/blacked out, will be available for public viewing and posted on <https://www.regulations.gov>. Submit both copies to the Dockets Management Staff. If you do not wish your name and contact information to be made publicly available, you can provide this information on the cover sheet and not in the body of your comments and you must identify this information as “confidential.” Any information marked as “confidential” will not be disclosed except in accordance with 21 CFR 10.20 and other applicable disclosure law. For more information about FDA’s posting of comments to public dockets, see 80 FR 56469, September 18, 2015, or access the information at: <https://www.govinfo.gov/content/pkg/FR-2015-09-18/pdf/2015-23389.pdf>.

Docket: For access to the docket to read background documents or the electronic and written/paper comments received, go to <https://www.regulations.gov> and insert the docket number, found in brackets in the heading of this document, into the “Search” box and follow the prompts and/or go to the Dockets Management Staff, 5630 Fishers Lane, Rm. 1061, Rockville, MD 20852, 240–402–7500.

You may submit comments on any guidance at any time (see 21 CFR 10.115(g)(5)).

Submit written requests for single copies of this guidance to the Division of Drug Information, Center for Drug Evaluation and Research, Food and Drug Administration, 10001 New Hampshire Ave., Hillandale Building, 4th Floor, Silver Spring, MD 20993–0002, or to the Office of Communication, Outreach and Development, Center for Biologics

Evaluation and Research, Food and Drug Administration, 10903 New Hampshire Ave., Bldg. 71, Rm. 3128, Silver Spring, MD 20993–0002. Send one self-addressed adhesive label to assist that office in processing your requests. See the **SUPPLEMENTARY INFORMATION** section for electronic access to the guidance document.

FOR FURTHER INFORMATION CONTACT:

Lysette Deshields, Center for Drug Evaluation and Research, Food and Drug Administration, 10903 New Hampshire Ave., Silver Spring, MD 20993–0002, 301–796–3130, drugtrackandtrace@fda.hhs.gov; or Anne Taylor, Center for Biologics Evaluation and Research, Food and Drug Administration, 10903 New Hampshire Ave., Bldg. 71, Rm. 7301, Silver Spring, MD 20993–0002, 240–402–7911.

SUPPLEMENTARY INFORMATION:

I. Background

FDA is announcing the availability of a guidance for industry entitled “DSCSA Standards for the Interoperable Exchange of Information for Tracing of Certain Human, Finished, Prescription Drugs.” The FD&C Act, as amended by the Drug Supply Chain Security Act (DSCSA), outlines requirements for enhanced drug distribution security, which include the steps to achieve interoperable, electronic tracing of products at the package level. Section 582(g)(1) of the FD&C Act (21 U.S.C. 360eee–1(g)(1)) sets forth enhanced drug distribution security requirements for trading partners, including adherence to standards established by FDA for the exchange of transaction information and transaction statements in a secure, interoperable, electronic manner and the verification of product at the package level. Section 582(g)(1) of the FD&C Act states that these enhanced drug distribution security requirements go into effect on November 27, 2023. Additionally, section 582(h)(4)(A) of the FD&C Act specifies that FDA issue a guidance to identify and make recommendations with respect to the standards necessary for adoption in order to support the secure, interoperable, electronic data exchange among the pharmaceutical distribution supply chain that comply with a form and format developed by a widely recognized international standards development organization.

In this guidance, FDA considered the standards established pursuant to sections 505D of the FD&C Act (21 U.S.C. 355e). FDA also considered the standards established pursuant to section 582(a)(2) of the FD&C Act and

described in the July 2022 revised draft guidance entitled “DSCSA Standards for the Interoperable Exchange of Information for Tracing of Certain Human, Finished, Prescription Drugs.” The pilot projects conducted per section 582(j) of the FD&C Act also informed this guidance.

In November 2014, FDA issued a draft guidance for industry, entitled “DSCSA Standards for the Interoperable Exchange of Information for Tracing of Certain Human, Finished, Prescription Drugs: How to Exchange Product Tracing Information.” In July 2022, FDA issued a revised draft guidance, entitled “DSCSA Standards for the Interoperable Exchange of Information for Tracing of Certain Human, Finished, Prescription Drugs” (87 FR 40258), that updated the policies articulated in the 2014 draft guidance. This guidance finalizes the July 2022 revised draft guidance. FDA considered comments received on the revised draft guidance as the guidance was finalized. Changes were made to the guidance to improve clarity. This guidance finalizes the policy articulated in the July 2022 revised draft guidance to reflect the enhanced drug distribution security requirements in section 582(g)(1) of the FD&C Act that will go into effect on November 27, 2023, including that only electronic methods of product tracing will be permitted and verification of product at the package level will be required, unless a waiver, exception, or exemption applies. This guidance is intended to also facilitate the creation of a uniform methodology for product tracing while ensuring the protection of confidential commercial information and trade secrets. FDA also published other guidances describing recommendations for enhanced drug distribution security, including the attributes necessary for enhanced product tracing and verification, which should be read in conjunction with this guidance (see FDA’s Drug Supply Chain Security Law and Policies web page at <https://www.fda.gov/drugs/drug-supply-chain-security-act-dscsa/drug-supply-chain-security-act-law-and-policies>).

This guidance is being issued consistent with FDA’s good guidance practices regulation (21 CFR 10.115). The guidance represents the current thinking of FDA on “DSCSA Standards for the Interoperable Exchange of Information for Tracing of Certain Human, Finished, Prescription Drugs.” It does not establish any rights for any person and is not binding on FDA or the public. You can use an alternative approach if it satisfies the requirements of the applicable statutes and regulations.

II. Paperwork Reduction Act of 1995

This guidance includes information collection provisions that are subject to review by the Office of Management and Budget (OMB) under the Paperwork Reduction Act of 1995 (44 U.S.C. 3501–3520). FDA intends to solicit public comment and obtain OMB approval for any information collections recommended in this guidance that are new or that would represent substantive or material modifications to those previously approved collections of information found in FDA regulations or guidance.

III. Electronic Access

Persons with access to the internet may obtain the guidance at either <https://www.fda.gov/drugs/guidance-compliance-regulatory-information/guidances-drugs>, <https://www.fda.gov/vaccines-blood-biologics/guidance-compliance-regulatory-information/biologics/biologics-guidances>, <https://www.fda.gov/regulatory-information/search-fda-guidance-documents>, or <https://www.regulations.gov>.

Dated: August 31, 2023.

Lauren K. Roth,

Associate Commissioner for Policy.

[FR Doc. 2023–19182 Filed 9–5–23; 8:45 am]

BILLING CODE 4164–01–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Office of the Assistant Secretary for Financial Resources; Statement of Organization, Functions, and Delegations of Authority

AGENCY: Office of the Assistant Secretary for Financial Resources (ASFR), Department of Health and Human Services.

ACTION: Notice.

SUMMARY: The Department of Health and Human Services (HHS) is making several updates within the Office of the Assistant Secretary for Financial Resources (AM), the Immediate Office (AMM), the Office of Budget (AML), the Office of Finance (AMS), the Office of Grants (AMU), and the Office of Acquisitions (AMX), to better align office titles with office activities and to clearly delineate ASFR's portfolio across its five components.

FOR FURTHER INFORMATION CONTACT:

Christine Jones, Deputy Assistant Secretary for Operations and Management, Office of the Assistant Secretary for Financial Resources, Hubert H. Humphrey Building, 200

Independence Ave. SW, Room 514–G, Washington, DC 20201, (202) 690–7542.

SUPPLEMENTARY INFORMATION: Part A (Office of the Secretary), Statement of Organization, Functions, and Delegations of Authority of the Department of Health and Human Services (HHS) is being amended at Chapter AML, Office of Budget, as last amended at 74 FR 150 (39327) dated July 30, 2009; at Chapter AM, ASFR, as last amended at 74 FR 215 dated November 9, 2009; at Chapter AMS, Office of Finance, as last amended at 81 FR 88249, dated December 7, 2016; at Chapter AMX, Office of Acquisitions, as last amended at 84 FR 20154, dated May 8, 2019; at Chapter AMU, Office of Grants, as last amended 85 FR 81935, dated December 17, 2020; and at Chapter AMM, Immediate Office, as last amended at 86 FR 6354, dated January 21, 2021.

This notice realigns the Grants Quality Service Management Office (Grants QSMO) from the Immediate Office (AMM) to the Office of Grants (AMU); and compiles the responsibilities of ASFR into one **Federal Register** notice. All notices above are superseded by the following changes:

(1) Chapter AM, Office of the Assistant Secretary for Financial Resources

Section AM.00 Mission: The mission of the Office of the Assistant Secretary for Financial Resources is to advise the Secretary on all aspects of budget, grants, financial management, acquisitions, and Enterprise Risk Management and to provide direction for these activities throughout HHS.

Section AM.10 Organization: The Office of the Assistant Secretary for Financial Resources is headed by the Assistant Secretary for Financial Resources, who reports to the Secretary, and accomplishes its work through its component offices:

- Immediate Office (AMM)
- Office of Budget (AML)
- Office of Finance (AMS)
- Office of Grants (AMU)
- Office of Acquisitions (AMX)

Section AM.20 Functions: The Assistant Secretary for Financial Resources has several formal and informal roles, including Chief Financial Officer (CFO), Chief Performance Improvement Officer (PIO), Chief Acquisition Officer (CAO), HHS audit follow-up official, and lead official for budget and Department-wide grants policy. The Assistant Secretary is also a close advisor to the Secretary on policy issues.

(2) Chapter AMM, Immediate Office

Section AMM.00 Mission: The Immediate Office is responsible for support, operations, and coordination required to execute the mission of the Office of the Assistant Secretary for Financial Resources (ASFR) and the implementation of HHS's Enterprise Risk Management (ERM) capabilities. The Immediate Office also leads strategic and workforce development initiatives across ASFR.

Section AMM.10 Organization: The Immediate Office is headed by the Deputy Assistant Secretary for Operations and Management, who reports to the Assistant Secretary for Financial Resources, and includes the following:

- Division of Administrative Operations (AMM1)
- Division of Enterprise Risk Management (AMM2)

Section AMM.20 Functions:

1. Division of Administrative Operations (AMM1): The Division:

(a) Provides operational support for the ASFR.

(b) Coordinates administrative and operational issues across ASFR.

(c) Serves as the liaison with internal and external stakeholders regarding operational matters.

(d) Leads activities that enhance ASFR's management and operations.

2. Division of Enterprise Risk Management (ERM) (AMM2): The Division:

(a) Coordinates across HHS to establish, and communicate, and sustain HHS's ERM vision, culture, strategy, and framework.

(b) Designs, implements, and matures an ERM capability across HHS, including governance and community management.

(c) Develops and shares tools, guidance, and best practices regarding ERM.

(d) Provides technical assistance and direction to HHS Operating Divisions (OPDIVs) and Staff Divisions (STAFFDIVs) on implementing ERM.

(e) Facilitates strategic initiatives across HHS's risk portfolio of existing and emerging risks and opportunities, including guiding updates of the agency's risk profile, and management's prioritization of risks and opportunities.

(f) Leads the Department's efforts to meet the ERM requirements in OMB Circular A–123, “Management's Responsibility for Enterprise Risk Management and Internal Control.”

(g) Prepares reports, briefings, and makes recommendations to senior HHS leadership, OPDIVs, STAFFDIVs and other stakeholders on ERM related activities.

(h) Leads activities that enhance HHS implementation and integration of ERM into business operations.

(3) Chapter AML, Office of Budget

Section AML.00 Mission: The Office of Budget provides advice and support to the Secretary and the ASFR on matters pertaining to the formulation of the HHS and President's Budget. The Office of Budget manages the performance budget and provides program assessment and performance reporting, along with presentation of budgets and budget-related legislation to the Office of Management and Budget (OMB), the public, media, and Congressional committees. The Office of Budget provides resolution of issues arising from the execution of final appropriations. The Office of Budget manages HHS apportionment activities, which provide funding to the HHS OPDIVs and STAFFDIVs. The Office of Budget coordinates, oversees, and convenes resource managers and financial accountability officials within the Office of the Secretary to update, share, and implement related HHS-wide policies, procedures, operations, rules, regulations, recommendations, and priorities. The Office of Budget coordinates and prepares guidelines for reprogramming execution, transfers between accounts, and other crosscutting funding methods and provides recommendations in managing and processing crosscutting funding proposals.

Section AML.10 Organization: The Office of Budget is headed by the Deputy Assistant Secretary for Budget, who reports to the Assistant Secretary for Financial Resources, and includes the following:

- Division of Discretionary Programs (AML1)
- Division of Health Benefits and Income Support (AML3)
- Division of Budget Policy, Execution, and Review (AML4)
- Division of the Office of the Secretary Budget (AML5)

Section AML.20 Functions:

1. Division of Discretionary Programs (AML1): The Division:

(a) Provides analytical services and assistance to the Secretary, the Assistant Secretary for Financial Resources, and Department OPDIV heads in their budgetary management of the Department's principal discretionary social services, health, and science programs.

(b) Reviews budgets and related requests for resources and analyzes plans and proposals for new or alternative legislation.

(c) Analyzes proposed regulations, reorganizations, or program initiatives to determine their policy, resource, and management implications.

(d) Proposes recommendations on draft regulations, proposed legislation, and reorganization proposals.

(e) Proposes budget options and policy initiatives, as necessary, to achieve program objectives established by the Secretary.

(f) Assists in the development of strategies for the presentation of the budget to the Office of Management and Budget and the Congress and develops materials for key Departmental officials who testify at hearings before these bodies.

(g) Provides guidance to OPDIVs and STAFFDIVs in the formulation of their budgets.

(h) Conducts special reviews and analyses to examine assigned OPDIV program operations and management effectiveness.

(i) Assists in the development of performance plans, reports, and program assessments under the Government Performance and Results Modernization Act (GPRAMA).

(j) Assists in the presentation of the Department's budget to the public by developing material for use by Departmental officials, and reviews press statements and other public documents for consistency with approved budgets and plans.

2. Division of Health Benefits and Income Support (AML3): The Division:

(a) Provides analytical services and assistance to the Secretary, the Assistant Secretary for Financial Resources, and the Department OPDIV heads in the budgetary management of the Department's programs including Medicare, Medicaid, Family Support Payments and other entitlements in support of children and families.

(b) Reviews budget and related requests for resources; analyzes plans and proposals for new legislation, regulations, or program initiatives to determine their resource, policy, and management implications; proposes recommendations to the Deputy Assistant Secretary for Budget on budget requests, draft regulations, proposed legislation, and reorganization proposals.

(c) Assists the Secretary, the Assistant Secretary for Financial Resources, and the OPDIV heads in evaluating programs and budgetary proposals by developing reliable cost projections for legislative and planning proposals and ensuring that proposals are consistent with approved plans and policies.

(d) Coordinates the preparation of budget estimates and forecasts of

resources required to support the programs and operations of the Department.

(e) Reviews reprogramming requests and recommends appropriate action to the Deputy Assistant Secretary for Budget.

(f) Provides guidance in budget formulation for the appropriate OPDIV.

(g) Conducts special management reviews and analyses and develops management options to ensure efficient and effective program operations and to encourage management improvements.

(h) Proposes budget options and policy initiatives, as necessary, to achieve program objectives established by the Secretary.

(i) Assists in the development of strategies for presentation of the budget to the Office of Management and Budget and the Congress and develops materials for key Departmental officials who testify at hearings before these bodies.

(j) Assists in the development of performance plans, reports, and program assessments under the GPRAMA.

(k) Manages the overall allocation of Health Care Fraud and Abuse Control (HCFAC) funds.

3. Division of Budget Policy, Execution and Review (AML4): The Division:

(a) Directs the formulation and presentation of the HHS budget by developing and promulgating to the OPDIVs and others the policies, procedures, guidance, and schedules for preparing budget submissions.

(b) Coordinates the presentation of the Department's budget and performance plan to Congress including preparation and submission of justifications, reports, significant items, and crosscutting materials; preparation of the Secretary's testimony before the Appropriations Committees; and coordination of transcripts, questions for the record, and other hearing materials.

(c) Provides advice and analysis to support Department-wide budget decision-making.

(d) Maintains active communication with Department budget officers with regard to budget events and activities with OMB, GAO, Congress and other parties.

(e) Manages a computerized budget information system reflecting HHS-wide data and coordinates OPDIV input into this system.

(f) Provides direct staff support to the Secretary in preparation for appropriation hearings and other budget-related presentations and briefings.

(g) Actively communicates with the Budget and Appropriations Committees in the Congress and provides intelligence and analyses of budget decisions to senior HHS staff and the OPDIVs.

(h) Prepares guidelines for determining funding levels under continuing resolutions.

(i) Coordinates preparation of guidelines governing reprogrammings, transfers between accounts, and other crosscutting funding methods; provides recommendations and staff support in managing and processing crosscutting funding proposals.

(j) Analyzes and prepares reports on HHS performance in managing Full Time Equivalent (FTE) levels and in implementing FTE policy and provides expert advice on Department-wide staffing.

(k) Provides leadership and direction in the Department-wide review, analysis and appraisal of financial elements of program execution and the development and execution of policies related to efficient allocation, expenditure and control of funds.

(l) Coordinates and tracks outlay projections: (1) To assist OMB in the continuing effort to monitor spending and to thereby improve the management of the Government's overall cash and debt operations; and (2) in support of formulation of the budget, including the maintenance of HHS ceiling controls and the development of outlay estimates shown in the President's Budget for controllable programs.

(m) Promulgates Departmental spending policies, especially in the event of Continuing Resolutions and possible suspension of operations due to the failure of the Congress to enact appropriations on time and works with agency budget officers and the OMB in formulating agency funding and contingency staffing plans.

(n) Maintains a system of Department-wide budget execution, including the management and control of the apportionment of funds in accordance with the requirements of the Anti-Deficiency Act and OMB regulations; and requests and monitors the receipt of Treasury warrants.

(o) Serves as principal staff advisor to the ASFR on all matters involving budget execution.

(p) Acts as liaison on behalf of HHS with OMB, the Treasury Department, the Congressional Budget Office, and other agencies on matters involving budget execution.

(q) Responsible for the development and maintenance of a system of financial information which involves the collection, organization, and

maintenance of financial data in electronic form as well as the development of reporting mechanisms for making the financial information useful and available for decision making.

(r) Represents the Department in government-wide activities to implement the development and implementation of performance measures and budget-related performance planning policies, requirements and processes. Manages program performance assessment activities.

(s) Provides special management review services for selected activities.

(t) Manages the formulation, execution, and balances of the Nonrecurring Expenses Fund.

(u) Monitoring compliance with the GPRA Modernization Act and other related legislation and guidance.

4. Division of the Office of the Secretary Budget (AML5): The Division:

(a) Reviews and analyzes the budgets of the STAFFDIVS funded by the General Departmental Management (GDM), Medicare Hearings and Appeals (MHA), Office of Inspector General (OIG), Office of the National Coordinator (ONC), Office for Civil Rights (OCR), and Public Health Social Services Emergency Fund (PHSSEF) appropriations. Prepares special analyses of these budgets for use in decision-making, particularly for evaluating capacity and determining if alternative approaches are feasible.

(b) Monitors Congressional appropriations hearings in which the GDM STAFFDIVS, OIG and OCR are participants.

(c) Reviews budgets and related requests for resources and analyzes plans and proposals for new or alternative legislation.

(d) Analyzes proposed regulations, reorganizations, or program initiatives to determine their policy, resource, and management implications.

(e) Proposes recommendations on draft regulations, proposed legislation, and reorganization proposals.

(f) Proposes budget options and policy initiatives as necessary to achieve program objectives established by the Secretary.

(g) Assists in the development of strategies for the presentation of the budget to the OMB and the Congress and develops materials for key Departmental officials who testify at hearings before these bodies.

(h) Provides guidance to STAFFDIVS in the formulation and execution of their budgets.

(i) Conducts special reviews and analyses to examine assigned

STAFFDIV program operations and management effectiveness.

(j) Provides staff assistance to the Secretary, the ASFR, the Service and Supply Funds (SSF) Board of Directors, OPDIV Budget Officers and STAFFDIV Heads in the budgetary and financial management of the SSF.

(k) Provides for budget policy management and financial integrity of the SSF in the provision of Departmental common use administrative services.

(l) Assists in the planning and preparation of the SSF budget for presentation to the SSF Board, the OMB, and Congress.

(m) Provides budget policy and technical support to the Program Support Center Director (and other activity managers) on all SSF activities.

(n) Directs and provides technical guidance to SSF activity managers in preparing annual budgets.

(o) Directs and provides technical guidance to SSF accountants in preparing annual financial statements. Assists in the planning and preparation of these statements for presentation to the SSF Board, auditors, and the Office of Management and Budget.

(p) Establishes Department policy in receiving and responding to Inspector General reports and audits.

(q) Prepares apportionment requests for the SSF.

(r) Provides Chief Financial Officer (CFO) certification on Office of the Secretary Quarterly and Annual Financial Statements.

(s) Provides oversight of the HHS OS OPDIV travel program that consists of 17 OS STAFFDIVS in assuring that processes are followed as described in the Federal Travel Regulation and manages the performance and execution of travel authorizations, vouchers, Individual Billed Accounts and Centrally Billed Accounts.

4. Chapter AMS, Office of Finance
Section AMS.00 Mission: The Office of Finance leads the HHS financial management community through responsible stewardship, financial accountability, collaboration and innovation, and enhanced program integrity.

Section AMS.10 Organization: The Office of Finance is headed by the Deputy Assistant Secretary for Finance, also the Department's Deputy Chief Financial Officer, who reports to the Assistant Secretary for Financial Resources (also the Department's Chief Financial Officer), and includes the following:

- Immediate Office of Finance (AMS)
- Office of Financial Policy and Reporting (AMS1)

- Office of Financial Systems Policy and Oversight (AMS2)
- Office of Program Audit Coordination (AMS3)

Section AMS.20 Functions:

1. Immediate Office of Finance (AMS): The Office:

(a) Advises the ASFR/CFO on all aspects of financial management matters affecting the Department including policy, workforce, and technology topics.

(b) Provides executive leadership, professional training, and strategic direction to the HHS CFO community to meet the CFO Act requirements.

(c) Leads strategic planning for the HHS CFO community and the Office of Finance.

(d) Serves as the liaison on financial management matters with internal and external stakeholders such as OMB, US Department of the Treasury (Treasury), and other Federal and non-Federal organizations.

(e) Leads the Department's efforts to meet the HHS-wide annual assessment of internal controls and develops the Department's annual assurance statement according to requirements in OMB Circular A-123, "Management's Responsibility for Enterprise Risk Management and Internal Control."

(f) Provides administrative and operational support for the Office of Finance.

(g) Leads workforce development initiatives for the Office of Finance.

(h) Leads other activities that enhance the Office of Finance's management and operations.

2. Office of Financial Policy and Reporting (AMS1): The Office:

(a) Is responsible for financial management policy and standards, internal controls over reporting, statutory financial reports and audits, and other managerial reports.

(b) Advises the Deputy Assistant Secretary for Finance on all aspects of financial management policy and reporting matters affecting the Department including statutory and managerial financial reports, financial reporting standards, OMB and Treasury transparency initiatives, proper accounting treatment, and accounting standardization.

(c) Reviews and interprets OMB, U.S. Government Accountability Office (GAO), Treasury, and Federal Accounting Standards Advisory Board (FASAB) guidance and requirements related to government-wide accounting policies and standards.

(d) Recommends, develops, and promulgates Department-wide policies, procedures, and standards for financial

management areas including OMB, GAO, Treasury, FASAB, and other agency guidance related to government-wide accounting policies and standards, cash management, credit management, debt management, payment and disbursement activities and functions, and budget execution accounting.

(e) Serves as the principal liaison with the OIG in planning the annual financial statement audit strategy under the CFO Act, as amended.

(f) Leads the Departmental process for the development of the required annual report on HHS's audited financial statements; collaborates with the OPDIVs and STAFFDIVs on the preparation of the Department's agency financial report, and coordinates with OPDIVs and STAFFDIVs to ensure timely audit deliverables.

(g) Reviews and analyzes OPDIVs' financial statements and key reconciliations and oversees the preparation and submission of consolidated Department financial statements as required by OMB and Treasury.

(h) Oversees the design, preparation, review, analysis, and submission of financial management reports for the Department, as required by legislation, regulation, OMB, Treasury, GAO, Congress, and other stakeholders.

(i) Leads the Department's efforts to establish and maintain proper internal control over reporting and ensures that requirements are met under Appendix A, OMB Circular A-123, "Management's Responsibility for Enterprise Risk Management and Internal Control."

(j) Assures OPDIVs' reporting is in accordance with internal control and reporting standards from OMB, GAO, Treasury, FASAB, and the HHS Accounting Treatment Manual (ATM).

(k) Coordinates with the OPDIVs in the preparation of corrective action plans (CAP) and oversees the mitigations of risks contributing to material weaknesses, significant deficiencies, and other reportable conditions from the annual CFO Act audit.

(l) Maintains a system for tracking and improving cash and credit management and debt collection performance throughout the Department.

(m) Serves as the liaison with OMB, Treasury, authoritative Federal agencies, intragovernmental groups, and other agencies on standard general ledger compliance matters, accounting, financial policy, and reporting issues.

(n) Collaborates with system owners and financial management offices to facilitate standardized enterprise-wide

solutions within the financial accounting reporting systems.

(o) Collaborates with the Office of Financial Systems Policy and Oversight to ensure financial system conformity with the Department's Accounting Treatment Manual (ATM) and related data standards.

(p) Provides advice and assistance to OPDIVs and STAFFDIVs on proper accounting treatments in accordance with the Department's ATM and on financial reporting and related fiscal matters.

(q) Oversees the strategic planning and maintenance of the Department-wide ATM consistent with Federal accounting concepts, standards, and HHS financial management policies.

(r) Introduces uniform business rules and data standards required to support new financial reporting requirements.

(s) Provides support to the OPDIV CFOs for financial planning and improvement initiatives.

(t) Aligns business goals with IT services, products, software, and infrastructure, identifying opportunities for process improvements through business process reengineering and automation.

3. Office of Financial Systems Policy and Oversight (AMS2): The Office:

(a) Is responsible for overseeing and managing the Department-wide financial systems.

(b) Advises the Deputy Assistant Secretary for Finance on all aspects of financial systems matters affecting the Department including strategic direction for financial management systems, innovative solutions, and workforce development.

(c) Establishes, facilitates, and supports a governance framework for Department-wide financial management.

(d) Serves as the liaison on financial systems matters with internal and external stakeholders such as OMB, Treasury, and other Federal and non-Federal organizations.

(e) Develops and promulgates policies, directives, and guidance for Department-wide financial management systems and ensures compliance.

(f) Oversees, manages, and operates Department-wide financial systems as per the CFO Act of 1990, Federal Financial Management Improvement Act (FFMIA) of 1996, Federal Managers Financial Integrity Act (FMFIA) of 1982, and other federal requirements.

(g) Facilitates the annual Department-wide financial systems Audit in accordance with GAO's Financial Information System Controls Audit Manual (FISCAM).

(h) Assesses Department-wide financial management systems for compliance with FFIA requirements, security, and internal controls and includes the evaluation results in the Department's annual assurance statement.

(i) Provides executive leadership to plan and implement innovative solutions using Business Intelligence & Data Analytics, Artificial Intelligence, and other technologies to achieve efficiencies, reduce costs, improve quality, and improve reporting and analytical capabilities for financial management.

4. Office of Program Audit Coordination (AMS3): The Office:

(a) Serves as the central point of contact for coordinating program audit support through payment accuracy and audit resolution activities across the Department.

(b) Advises the Deputy Assistant Secretary for Finance on all aspects of payment integrity-related matters affecting the Department and serves as the liaison with internal and external stakeholders, OMB, and other Federal and non-Federal entities.

(c) Leads the Department-wide efforts to implement the Payment Integrity Information Act of 2019, and payment integrity-related Executive Orders and other regulatory requirements.

(d) Provides leadership, guidance, training, and support to both HHS and non-HHS single audit stakeholders to ensure compliance with the Uniform Guidance (2 CFR part 200).

(e) Serves as ASFR's audit liaison for Government Accountability Office (GAO) engagements and serves as HHS' Office of Inspector General (OIG) audit liaison.

(f) Oversees the development, implementation, change management, and overall operations of enterprise-wide audit tracking and analytics systems.

(g) Performs analysis using grant- and audit-related data to advance the use of such data and evidence in HHS programs' management.

5. Chapter AMU, Office of Grants.

Section AMU.00 Mission: The Office of Grants provides Department-wide leadership, guidance, and oversight for HHS' grants management policies, practices, systems, and workforce development activities. The Office of Grants provides technical assistance to the Department's OPDIVs and STAFFDIVs, assesses the effectiveness of the grants programs and processes; develops pertinent HHS-wide regulatory guidance, policies, and performance standards; maintains and reports Departmental grant/financial assistance

award information; and conducts special Departmental improvement initiatives related to grants. The Office of Grants fosters collaboration, innovation, and accountability in the administration and management of the grant functions throughout the Department. The Office of Grants provides input for coordinated Department positions on proposed legislation and Government regulations specific to grant-related matters. The Office of Grants is responsible for carrying out HHS's responsibilities as the lead standards setting agency, per the Grant Reporting Efficiency and Agreements Transparency (GREAT) Act and as designated by OMB, to set government-wide data requirements for all federal grant-making agencies. The Office of Grants also manages Federal shared service initiatives, such as *Grants.gov* and *GrantSolutions*. The Office of Grants represents HHS to the OMB, GAO, other Federal agencies, and Congress in matters of Departmental grant policies and management.

Section AMU.10 Organization: The Office of Grants is headed by the Deputy Assistant Secretary for Grants, also the Department's Senior Grants Management Official, who reports to the Assistant Secretary for Financial Resources, and includes the following:

- Immediate Office of Grants (AMU)
- Division of Policy Oversight Effectiveness and Training (AMU1)
- Division of Information and Solutions (AMU2)

Section AMU.20 Functions:

1. Immediate Office of Grants (AMU): The Office:

- (a) Assists in the management and administration of the Office's functions
- (b) Facilitates and coordinates government wide initiatives and activities on behalf of the HHS and Federal grant community, as appropriate.

2. Division of Policy Oversight Effectiveness and Training (AMU1): The Division:

- (a) Formulates, oversees, and evaluates Department-wide implementation of grants policies governing the award and management of grants throughout HHS, in support of existing laws, regulations, and OMB Circulars.

(b) Develops and implements HHS grants management regulations and publishes new policies and modifications in the HHS Grants Policy Directives (GPDs), including all directives necessary to implement new intergovernmental and HHS policies.

(c) Maintains a program of continuous improvement initiatives that promote

effective and efficient grant and program management practices across the Department.

(d) Leads Departmental efforts to enhance the knowledge and skills of Departmental employees with grant management and grant program related responsibilities.

(e) Represents the Department and serves as liaison in interagency grants policy and management activities; maintains working relationships with OMB, U.S. General Services Administration (GSA), GAO and other Federal agencies to coordinate and assist in the development of proposed legislation and policy.

(f) Leads the Grants Quality Service Management and Data Standards functions with responsibility for creating and managing a government-wide marketplace offering federal agencies modern IT solutions and services to support their grants missions; advising agencies and OMB on federal grants IT investments; and driving the implementation of grants data standards.

3. The Division of Information and Solutions (AMU2): The Division:

(a) Develops, manages, and operates major, grant-shared services and solution offerings for HHS, as directed by the Secretary of HHS or delegated authority.

(b) Manages DATA act reporting for the Department's grant transactions and provides technical assistance to HHS STAFFDIVs and OPDIVs to promote data integrity.

(c) Coordinates initiatives that require cross-Departmental system development or enhancement of grant management or adjacent systems to meet Departmental goals or to comply with government wide grants policy requirements.

6. Chapter AMX, Office of Acquisitions

Section AMX.00 Mission: The Office of Acquisitions provides leadership, guidance, and oversight to constituent organizations, and coordinates long and short-range planning for HHS' acquisition practices, systems, and workforce. The Office of Acquisitions provides technical assistance to the Department's OPDIVs and STAFFDIVs; evaluates effectiveness of the acquisition programs and processes; develops pertinent HHS-wide regulatory guidance, policies, and performance standards; maintains Departmental contract award information; and conducts special Departmental initiatives related to acquisitions. The Office of Acquisitions provides input for coordinated Department positions on proposed legislation and Government regulations specific to acquisition

related matters, processes suspension and debarment cases, and manages activities associated with the training, development, and certification of—and strategic planning for—the Department's acquisition workforce.

Section AMX.10 Organization: The Office of Acquisitions is headed by the Deputy Assistant Secretary for Acquisitions, also the Department's Senior Procurement Executive (SPE) and Suspension and Debarment Official (SDO), who reports to the Assistant Secretary for Financial Resources, and includes the following:

- Immediate Office (AMX)
- Division of Strategic Programs and Business Systems (AMX1)
- Division of Acquisition Policy, Legislation, Oversight & Workforce (AMX2)
- Office of Small and Disadvantaged Business Utilization (The Office of Acquisitions provides administrative support to the Director, who reports directly to the Deputy Secretary) (AMX3)
- Office of Recipient Integrity and Compliance (AMX4)

Section AMV.20 Functions:

1. Immediate Office of Acquisitions (AMX): The Office:

- (a) Provides strategic planning, execution, oversight, and management.
- (b) Provides acquisition system performance measurement and management.
- (c) Leads customer engagement and communications efforts.
- (d) Provides SPE industry engagement support.
- (e) Provides budget planning and tracking.
- (f) Serves as human resources liaison (recruitment, security processing & onboarding support, timekeeper, and performance management support).
- (g) Provides executive administrative support and travel support.
- (h) Provides equipment inventory and support.
- (i) Leads employee engagement.
- (j) Manages executive correspondence.
- (k) Conducts small purchases.

2. The Division of Strategic Programs and Business Systems. (AMX1): The Office:

- (a) Serves as the System Owner for the HHS Consolidated Acquisition Solution (HCAS) and develops Department-wide standards that include acquisition system policies and guidance.
- (b) Manages contract data quality and analytics initiatives.
- (c) Works with the other divisions within the Office of Acquisitions to develop innovative processes and tools

acquiring, adopting, tailoring, and sharing best practices for use by the HHS acquisition workforce.

(d) Leads and implements the Department's Category Management Program, designed to increase acquisition efficiency, enhance mission performance, increase spend under management, and incorporate innovative approaches, solutions, and products to meet enterprise requirements.

(e) Manages the Government Purchase Card Program and develops pertinent HHS-wide regulatory guidance, policies, and procedures; maintains department wide spend and refund data, among other statistical data on the card program; conducts internal audits to assess the program's implementation risk.

(f) Oversees contract performance through the Contractor Performance Assessment Reporting System (CPARS) and Federal Awardee Performance and Integrity Information System (FAPIS).

(g) Leads industry engagement through its Industry Liaison function.

3. The Division of Acquisition Policy, Legislation, Oversight & Workforce (AMX2): The Office:

(a) Provides leadership in acquisitions through regulations and policy development and implementation and workforce planning, development, and training.

(b) Formulates Department-wide acquisition policies and procedures governing acquisition activities, including publishing and maintaining the HHS Acquisition Regulation (HHSAR), and providing advice and technical assistance on matters related to HHS acquisition programs.

(c) Participates in government-wide acquisition rulemaking through the Civilian Agency Acquisition Council.

(d) Manages workforce development initiatives for the Department's acquisition workforce.

(e) Provides oversight of the implementation of acquisition regulations and policies by the Department's OPDIVs and STAFFDIVs to ensure consistent policy interpretation and application.

(f) Provides advice, oversight and support regarding operational acquisition and business practices and issues and conducts procurement management reviews and promotes consistent and standardized business practices.

(g) Serves as the Department's liaison relating to acquisition issues for OMB, Congress, GAO and the OIG.

(h) Acts as the Department's Task Order Ombudsman and Advocate for Competition.

4. The Office of Recipient Integrity and Compliance (AMX3): The Office:

(a) Provides leadership, guidance, and oversight of the Department's suspension and debarment program, and coordinates long and short-range planning for HHS' suspension and debarment efforts.

(b) Provides technical assistance to the Department's OPDIVs and STAFFDIVs; evaluates effectiveness of the programs and processes; develops pertinent HHS-wide regulatory guidance, and policies; maintains Departmental suspension and debarment information; and conducts special Departmental initiatives related to recipient integrity.

5. Office of Small & Disadvantaged Business Utilization (AMX4): The Office:

(a) Is headed by a Director who reports directly to the Deputy Secretary and is administratively supported by the Office of Acquisitions.

(b) Advocates for the use of small and socioeconomic businesses as Federal contractors pursuant to Public Law 95–507 and has responsibility within the Department for policy, plans, and oversight to execute the functions under Sections 8 & 15 (k) of the Small Business Act.

(c) Provides leadership, policy, guidance, and supervision, as well as coordinating short- and long-range strategic planning to assure that small business vendors have a fair opportunity to compete for and are awarded prime and subcontracts with the Department.

(d) Provides small business technical assistance to the Department's OPDIVs and STAFFDIVs; reviews and evaluates planned procurements to ensure that small and socioeconomic businesses are given thorough consideration; evaluates effectiveness of the small business programs and processes; develops pertinent HHS-wide policies, guidance, and performance standards; drafts Federal government and Departmental small business reports; and conducts special Departmental initiatives related to small and socioeconomic business concerns.

(e) Manages the development and implementation of appropriate small business vendor engagement activities that promote the utilization of small and socioeconomic business within the HHS acquisition portfolio as prime and subcontractors.

Delegations of Authority. Pending further redelegation, directives or orders made by the Secretary or the ASFR, all delegations and redelegations of authority made to officials and employees of affected organizational

components will continue in them or their successors pending further redelegations, provided they are consistent with this reorganization.

Cheryl R. Campbell,

Assistant Secretary for Administration.

[FR Doc. 2023–19165 Filed 9–5–23; 8:45 am]

BILLING CODE P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

National Institutes of Health

Eunice Kennedy Shriver National Institute of Child Health & Human Development; Notice of Closed Meeting

Pursuant to section 1009 of the Federal Advisory Committee Act, as amended, notice is hereby given of the following meeting.

The meeting will be closed to the public in accordance with the provisions set forth in sections 552b(c)(4) and 552b(c)(6), title 5 U.S.C., as amended. The grant applications and the discussions could disclose confidential trade secrets or commercial property such as patentable material, and personal information concerning individuals associated with the grant applications, the disclosure of which would constitute a clearly unwarranted invasion of personal privacy.

Name of Committee: National Institute of Child Health and Human Development Initial Review Group; Obstetrics and Maternal-Fetal Biology Study Section.

Date: October 27, 2023.

Time: 9:00 a.m. to 5:00 p.m.

Agenda: To review and evaluate grant applications.

Place: Eunice Kennedy Shriver National Institute of Child Health and Human Development, 6710B Rockledge Drive, Room 2131B, Bethesda, MD 20892 (Virtual Meeting).

Contact Person: Luis E. Dettin, Ph.D., Scientific Review Officer, Scientific Review Branch, Eunice Kennedy Shriver National Institute of Child Health and Human Development, NIH, 6710B Rockledge Drive, Room 2131B, Bethesda, MD 20892, (301) 827–8231, luis.dettin@nih.gov.

(Catalogue of Federal Domestic Assistance Program Nos. 93.864, Population Research; 93.865, Research for Mothers and Children; 93.929, Center for Medical Rehabilitation Research; 93.209, Contraception and Infertility Loan Repayment Program, National Institutes of Health, HHS)

Dated: August 30, 2023.

Tyeshia M. Roberson-Curtis,

Program Analyst, Office of Federal Advisory Committee Policy.

[FR Doc. 2023–19155 Filed 9–5–23; 8:45 am]

BILLING CODE 4140–01–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

National Institutes of Health

Eunice Kennedy Shriver National Institute of Child Health & Human Development; Notice of Closed Meeting

Pursuant to section 1009 of the Federal Advisory Committee Act, as amended, notice is hereby given of the following meeting.

The meeting will be closed to the public in accordance with the provisions set forth in sections 552b(c)(4) and 552b(c)(6), title 5 U.S.C., as amended. The grant applications and the discussions could disclose confidential trade secrets or commercial property such as patentable material, and personal information concerning individuals associated with the grant applications, the disclosure of which would constitute a clearly unwarranted invasion of personal privacy.

Name of Committee: National Institute of Child Health and Human Development Initial Review Group, Developmental Biology Study Section.

Date: October 20, 2023.

Time: 10:00 a.m. to 5:00 p.m.

Agenda: To review and evaluate grant applications.

Place: Eunice Kennedy Shriver National Institute of Child Health and Human Development, 6710B Rockledge Drive, Rm. 2131B, Bethesda, MD 20892 (Virtual Meeting).

Contact Person: Jolanta Maria Topczewska, Ph.D., Scientific Review Officer, Scientific Review Branch, Eunice Kennedy Shriver National Institute of Child Health and Human Development, NIH, 6710B Rockledge Drive, Rm. 2131B, Bethesda, MD 20892, (301) 451–0000, jolanta.topczewska@nih.gov.

(Catalogue of Federal Domestic Assistance Program Nos. 93.864, Population Research; 93.865, Research for Mothers and Children; 93.929, Center for Medical Rehabilitation Research; 93.209, Contraception and Infertility Loan Repayment Program, National Institutes of Health, HHS)

Dated: August 30, 2023.

Tyeshia M. Roberson-Curtis,

Program Analyst, Office of Federal Advisory Committee Policy.

[FR Doc. 2023–19153 Filed 9–5–23; 8:45 am]

BILLING CODE 4140–01–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

National Institutes of Health

Center for Scientific Review; Notice of Closed Meetings

Pursuant to section 1009 of the Federal Advisory Committee Act, as

amended, notice is hereby given of the following meetings.

The meetings will be closed to the public in accordance with the provisions set forth in sections 552b(c)(4) and 552b(c)(6), title 5 U.S.C., as amended. The grant applications and the discussions could disclose confidential trade secrets or commercial property such as patentable material, and personal information concerning individuals associated with the grant applications, the disclosure of which would constitute a clearly unwarranted invasion of personal privacy.

Name of Committee: Center for Scientific Review Special Emphasis Panel;

Fellowships: Learning, Memory, Language, Communication and Related Neuroscience.

Date: October 4–5, 2023.

Time: 8:00 a.m. to 8:00 p.m.

Agenda: To review and evaluate grant applications.

Place: National Institutes of Health, Rockledge II, 6701 Rockledge Drive, Bethesda, MD 20892 (Virtual Meeting).

Contact Person: Eileen Marie Moore, Ph.D., Scientific Review Officer, Center for Scientific Review, National Institutes of Health, 6701 Rockledge Drive, Bethesda, MD 20892, (301) 594–8928, eileen.moore@nih.gov.

Name of Committee: Center for Scientific Review Special Emphasis Panel; Special topics: Noninvasive Neuromodulation and Neuroimaging Technologies.

Date: October 5–6, 2023.

Time: 9:00 a.m. to 3:00 p.m.

Agenda: To review and evaluate grant applications.

Place: National Institutes of Health, Rockledge II, 6701 Rockledge Drive, Bethesda, MD 20892 (Virtual Meeting).

Contact Person: Pablo M Blazquez Gamez, Ph.D., Scientific Review Officer, Center for Scientific Review, National Institutes of Health, 6701 Rockledge Drive, Bethesda, MD 20892, (301) 435–1042, pablo.blazquezgamez@nih.gov.

(Catalogue of Federal Domestic Assistance Program Nos. 93.306, Comparative Medicine; 93.333, Clinical Research, 93.306, 93.333, 93.337, 93.393–93.396, 93.837–93.844, 93.846–93.878, 93.892, 93.893, National Institutes of Health, HHS)

Dated: August 30, 2023.

Tyeshia M. Roberson-Curtis,

Program Analyst, Office of Federal Advisory Committee Policy.

[FR Doc. 2023–19152 Filed 9–5–23; 8:45 am]

BILLING CODE 4140–01–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES**National Institutes of Health****National Center for Complementary & Integrative Health; Notice of Closed Meeting**

Pursuant to section 1009 of the Federal Advisory Committee Act, as amended, notice is hereby given of the following meeting.

The meeting will be closed to the public in accordance with the provisions set forth in sections 552b(c)(4) and 552b(c)(6), title 5 U.S.C., as amended. The grant applications and the discussions could disclose confidential trade secrets or commercial property such as patentable material, and personal information concerning individuals associated with the grant applications, the disclosure of which would constitute a clearly unwarranted invasion of personal privacy.

Name of Committee: National Center for Complementary and Integrative Health Special Emphasis Panel; Promoting Research on Music and Health: Phased Innovation Award for Music Interventions (R61/R33) Clinical Trial Optional.

Date: September 27, 2023.

Time: 11:00 a.m. to 5:00 p.m.

Agenda: To review and evaluate grant applications.

Place: National Center for Complementary and Integrative, Democracy II, 6707 Democracy Blvd. Bethesda, MD 20892 (Virtual Meeting).

Contact Person: SHEKHHER MOHAN, Ph.D., Scientific Review Officer, Office of Scientific Review, Division of Extramural Activities, 6707 Democracy Boulevard, Suite 401, Bethesda, MD 20817, shekher.mohan@nih.gov.

Contact Person: Jessica Marie McKlveen, Ph.D., Scientific Review Officer, Director, Office of Scientific Review, Division of Extramural Activities, NCCIH, NIH, 6707 Democracy Boulevard, Suite 401, Bethesda, MD 20817, jessica.mcklveen@nih.gov. (Catalogue of Federal Domestic Assistance Program Nos. 93.213, Research and Training in Complementary and Alternative Medicine, National Institutes of Health, HHS)

Dated: August 30, 2023.

Tyeshia M. Roberson-Curtis,

Program Analyst, Office of Federal Advisory Committee Policy.

[FR Doc. 2023–19158 Filed 9–5–23; 8:45 am]

BILLING CODE 4140–01–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES**National Institutes of Health****Eunice Kennedy Shriver National Institute of Child Health & Human Development; Notice of Closed Meeting**

Pursuant to section 1009 of the Federal Advisory Committee Act, as amended, notice is hereby given of the following meeting.

The meeting will be closed to the public in accordance with the provisions set forth in sections 552b(c)(4) and 552b(c)(6), title 5 U.S.C., as amended. The grant applications and the discussions could disclose confidential trade secrets or commercial property such as patentable material, and personal information concerning individuals associated with the grant applications, the disclosure of which would constitute a clearly unwarranted invasion of personal privacy.

Name of Committee: National Institute of Child Health and Human Development Initial Review Group; Biobehavioral and Behavioral Sciences Study Section.

Date: November 7, 2023.

Time: 10:00 a.m. to 6:00 p.m.

Agenda: To review and evaluate grant applications.

Place: Eunice Kennedy Shriver National Institute of Child Health and Human Development, 6710B Rockledge Drive, Rm 2127B, Bethesda, MD 20817 (Virtual Meeting).

Contact Person: Chi-Tso Chiu, Ph.D., Scientific Review Officer, Scientific Review Branch, Eunice Kennedy Shriver National Institute of Child Health & Human Development, 6710B Rockledge Drive, Rm. 2127B, Bethesda, MD 20817, (301) 435–7486, chiuc@mail.nih.gov.

(Catalogue of Federal Domestic Assistance Program Nos. 93.864, Population Research; 93.865, Research for Mothers and Children; 93.929, Center for Medical Rehabilitation Research; 93.209, Contraception and Infertility Loan Repayment Program, National Institutes of Health, HHS)

Dated: August 30, 2023.

Tyeshia M. Roberson-Curtis,

Program Analyst, Office of Federal Advisory Committee Policy.

[FR Doc. 2023–19154 Filed 9–5–23; 8:45 am]

BILLING CODE 4140–01–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES**National Institutes of Health****National Institute of Neurological Disorders and Stroke; Notice of Closed Meetings**

Pursuant to section 1009 of the Federal Advisory Committee Act, as amended, notice is hereby given of the following meetings.

The meetings will be closed to the public in accordance with the provisions set forth in sections 552b(c)(4) and 552b(c)(6), title 5 U.S.C., as amended. The grant applications and the discussions could disclose confidential trade secrets or commercial property such as patentable material, and personal information concerning individuals associated with the grant applications, the disclosure of which would constitute a clearly unwarranted invasion of personal privacy.

Name of Committee: Neurological Sciences Training Initial Review Group; NST–4 Study Section.

Date: October 3, 2023.

Time: 9:30 a.m. to 5:30 p.m.

Agenda: To review and evaluate grant applications.

Place: National Institutes of Health, Neuroscience Center, 6001 Executive Boulevard, Rockville, MD 20852 (Virtual Meeting).

Contact Person: Steven G Britt, MD, Scientific Review Officer, Scientific Review Branch, Division of Extramural Activities, NINDS/NIH, NSC, 6001 Executive Blvd., Rockville, MD 20852, 301–480–1953, steve.britt@nih.gov.

Name of Committee: National Institute of Neurological Disorders and Stroke Special Emphasis Panel; HEAL Initiative: Planning Studies for Initial Analgesic Development [Small Molecules and Biologics] (R61 Clinical Trial Not Allowed)

Date: October 3, 2023.

Time: 12:00 a.m. to 5:00 p.m.

Agenda: To review and evaluate grant applications.

Place: National Institutes of Health, Neuroscience Center, 6001 Executive Boulevard, Rockville, MD 20852 (Virtual Meeting).

Contact Person: Bo-Shiun Chen, Ph.D. Scientific Review Officer, Scientific Review Branch, Division of Extramural Activities, NINDS/NIH, NSC, 6001 Executive Blvd., Rockville, MD 20852, 301–496–9223, bo-shiun.chen@nih.gov.

Name of Committee: Neurological Sciences Training Initial Review Group; NST–2 Study Section NINDS K99 and K01 review.

Date: October 5–6, 2023.

Time: 8:00 a.m. to 6:00 p.m.

Agenda: To review and evaluate grant applications.

Place: InterContinental Chicago Hotel, 505 North Michigan Avenue, Chicago, IL 60611.

Contact Person: DeAnna Lynn Adkins, Ph.D., Scientific Review Officer, Scientific

Review Branch, Division of Extramural Activities, NINDS/NIH, NSC, 6001 Executive Blvd., Rockville, MD 20852, 301-496-9223, deanna.adkins@nih.gov.

Name of Committee: National Institute of Neurological Disorders and Stroke Special Emphasis Panel; ZNS1 SRB-P (12); Exploratory Team Research BRAIN Circuit Review.

Date: October 5–6, 2023.

Time: 9:00 a.m. to 5:00 p.m.

Agenda: To review and evaluate grant applications.

Place: Canopy by Hilton, 940 Rose Avenue North Bethesda, MD 20852.

Contact Person: Tatiana Pasternak, Ph.D., Scientific Review Officer, Scientific Review Branch, Division of Extramural Activities, NINDS/NIH, NSC, 6001 Executive Blvd. Rockville, MD 20852, 301-496-9223, tatiana.pasternak@nih.gov.

Name of Committee: Neurological Sciences Training Initial Review Group; Neurological Sciences Training 3 Study Section K01 and K99 Review.

Date: October 5, 2023.

Time: 10:00 a.m. to 2:00 p.m.

Agenda: To review and evaluate grant applications and/or proposals.

Place: National Institutes of Health, Neuroscience Center, 6001 Executive Boulevard, Rockville, MD 20852 (Virtual Meeting).

Contact Person: Lataisia Cherie Jones, Ph.D., Scientific Review Officer, Scientific Review Branch, Division of Extramural Activities, NINDS/NIH, 6001 Executive Blvd. Rockville, MD 20852, 301-496-9223, lataisia.jones@nih.gov.

Name of Committee: National Institute of Neurological Disorders and Stroke Special Emphasis Panel; HEAL Initiative: Team based research review meeting.

Date: October 11, 2023.

Time: 10:00 a.m. to 6:00 p.m.

Agenda: To review and evaluate grant applications.

Place: National Institutes of Health, Neuroscience Center, 6001 Executive Boulevard, Rockville, MD 20852 (Virtual Meeting).

Contact Person: Abhignya Subedi, Ph.D., Scientific Review Officer, Scientific Review Branch, Division of Extramural Activities, NINDS/NIH, 6001 Executive Blvd. Rockville, MD 20852, 301-496-9223, abhi.subedi@nih.gov.

(Catalogue of Federal Domestic Assistance Program Nos. 93.853, Clinical Research Related to Neurological Disorders; 93.854, Biological Basis Research in the Neurosciences, National Institutes of Health, HHS.)

Dated: August 30, 2023.

Tyeshia M. Roberson-Curtis,

Program Analyst, Office of Federal Advisory Committee Policy.

[FR Doc. 2023-19159 Filed 9-5-23; 8:45 am]

BILLING CODE 4140-01-P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

National Institutes of Health

National Heart, Lung, and Blood Institute; Notice of Closed Meetings

Pursuant to section 1009 of the Federal Advisory Committee Act, as amended, notice is hereby given of the following meetings.

The meetings will be closed to the public in accordance with the provisions set forth in sections 552b(c)(4) and 552b(c)(6), title 5 U.S.C., as amended. The grant applications and the discussions could disclose confidential trade secrets or commercial property such as patentable material, and personal information concerning individuals associated with the grant applications, the disclosure of which would constitute a clearly unwarranted invasion of personal privacy.

Name of Committee: National Heart, Lung, and Blood Institute Special Emphasis Panel; Studies of von Willebrand Disease.

Date: October 3, 2023.

Time: 1:00 p.m. to 4:00 p.m.

Agenda: To review and evaluate grant applications.

Place: National Institutes of Health, Rockledge I, 6705 Rockledge Drive, Bethesda, MD 20892, (Virtual Meeting).

Contact Person: Michael P. Reilly, Ph.D., Scientific Review Officer, Office of Scientific Review/DERA, National Heart, Lung, and Blood Institute, National Institutes of Health, 6705 Rockledge Drive, Room 208-Z, Bethesda, MD 20892, (301) 827-7975, reillymp@nhlbi.nih.gov.

Name of Committee: National Heart, Lung, and Blood Institute Special Emphasis Panel; Early Phase Clinical Trials (R61/R33).

Date: October 18, 2023.

Time: 11:00 a.m. to 2:00 p.m.

Agenda: To review and evaluate grant applications.

Place: National Institutes of Health, Rockledge I, 6705 Rockledge Drive, Bethesda, MD 20892 (Virtual Meeting).

Contact Person: Manoj K. Valiyaveetil, Ph.D., Scientific Review Officer, Blood & Vascular Branch, Office Scientific Review, Division of Extramural Research Activities (DERA), National Institute of Health, National Heart, Lung, and Blood Institute, Bethesda, MD 20817, (301) 402-1616, manoj.valiyaveetil@nih.gov.

Name of Committee: National Heart, Lung, and Blood Institute Special Emphasis Panel; Clinical Trials SEP (UG3, U24, R61).

Date: October 26, 2023.

Time: 11:00 a.m. to 4:00 p.m.

Agenda: To review and evaluate grant applications.

Place: National Institutes of Health, Rockledge I, 6705 Rockledge Drive, Bethesda, MD 20892, (Virtual Meeting).

Contact Person: Zhihong Shan, Ph.D., MD, Scientific Review Officer, Office of Scientific Review/DERA, National Heart, Lung, and

Blood Institute, National Institutes of Health, 6705 Rockledge Drive, Room 205-J, Bethesda, MD 20892, (301) 827-7085, zhihong.shan@nih.gov.

Name of Committee: National Heart, Lung, and Blood Institute Special Emphasis Panel; NHLBI Biorepository: Scientific Opportunities for Exploratory Research (R21).

Date: October 27, 2023.

Time: 10:00 a.m. to 3:00 p.m.

Agenda: To review and evaluate grant applications.

Place: National Institutes of Health, Rockledge I, 6705 Rockledge Drive, Bethesda, MD 20892 (Virtual Meeting).

Contact Person: Sun Saret, Ph.D., Scientific Review Officer, Office of Scientific Review/DERA, National Heart, Lung, and Blood Institute, National Institutes of Health, 6705 Rockledge Drive, Room 208-S, Bethesda, MD 20892, (301) 435-0270, sun.saret@nih.gov.

(Catalogue of Federal Domestic Assistance Program Nos. 93.233, National Center for Sleep Disorders Research; 93.837, Heart and Vascular Diseases Research; 93.838, Lung Diseases Research; 93.839, Blood Diseases and Resources Research, National Institutes of Health, HHS)

Dated: August 31, 2023.

Melanie J. Pantoja,

Program Analyst, Office of Federal Advisory Committee Policy.

[FR Doc. 2023-19157 Filed 9-5-23; 8:45 am]

BILLING CODE 4140-01-P

DEPARTMENT OF HOMELAND SECURITY

Coast Guard

[Docket No. USCG-2023-0586]

National Commercial Fishing Safety Advisory Committee; September 2023 Meetings

AGENCY: Coast Guard, Department of Homeland Security.

ACTION: Notice of Federal advisory committee meeting.

SUMMARY: The National Commercial Fishing Safety Advisory Committee (Committee) will conduct a series of meetings over three days to discuss and make recommendations to the Secretary on matters related to reducing casualties and fatalities in the commercial fishing industry. See task statements included in this notice below for specifics. The meetings will be open to the public.

DATES:

Meetings: The Committee will hold a meeting on Tuesday, September 26, 2023, from 8 a.m. until 5 p.m. Pacific Daylight Time (PDT), Wednesday, September 27, 2023, from 8 a.m. until 5 p.m. PDT, and Thursday, September 28, 2023, from 8 a.m. until 5 p.m. PDT. The

Committee meeting on Tuesday, September 26, 2023, from 8 a.m. to 9 a.m. will be dedicated to an administrative meeting (Committee members only). Please note these meetings may close early if the Committee has completed its business.

Comments and supporting documentation: To ensure your comments are received before the meeting, please submit your written comments no later than September 20, 2023.

ADDRESSES: The meeting will be held at the Federal Courthouse, 700 Stewart Street, Seattle, Washington 98101.

The National Commercial Fishing Safety Advisory Committee is committed to ensuring all participants have equal access regardless of disability status. If you require reasonable accommodation due to a disability to fully participate, please email Mr. Jonathan Wendland at Jonathan.G.Wendland@uscg.mil or call at 202–372–1245 as soon as possible.

Instructions: You are free to submit comments at any time, including orally at the meeting as time permits, but if you want your comment reviewed before the meeting, please submit your comments no later than September 20, 2023. We are particularly interested in comments regarding the topics in the “Agenda” section below. We encourage you to submit comments through Federal eRulemaking Portal at <https://www.regulations.gov>. If your material cannot be submitted using <https://www.regulations.gov>, call or email the individual in the **FOR FURTHER INFORMATION CONTACT** section of this document for alternate instructions. You must include the docket number [USCG–2023–0586]. Comments received will be posted without alteration at <https://www.regulations.gov> including any personal information provided. You may wish to review the Privacy and Security notice available on the homepage of <https://www.regulations.gov>, and DHS’s eRulemaking System of Records notice (85 FR 14226, March 11, 2020). If you encounter technical difficulties with comment submission, contact the individual listed in the **FOR FURTHER INFORMATION CONTACT** section of this notice.

Docket Search: Documents mentioned in this notice as being available in the docket, and all public comments, will be in our online docket at <https://www.regulations.gov>, and can be viewed by following that website’s instructions. Additionally, if you go to the online docket and sign-up for email alerts, you will be notified when comments are posted.

FOR FURTHER INFORMATION CONTACT: Mr. Jonathan Wendland, Alternate Designated Federal Officer (ADFO) of the National Commercial Fishing Safety Advisory Committee, 2703 Martin Luther King Jr. Ave. SE, Stop 7509, Washington, DC 20593–7509, telephone 202–372–1245 or Jonathan.G.Wendland@uscg.mil.

SUPPLEMENTARY INFORMATION: Notice of this meeting is in compliance with the *Federal Advisory Committee Act*, (Pub. L. 117–286, 5 U.S.C., ch. 10). The National Commercial Fishing Safety Advisory Committee is authorized by section 601 of the *Frank LoBiondo Coast Guard Authorization Act of 2018*, (Pub. L. 115–282, 132 Stat. 4190), and is codified in 46 U.S.C. 15102. The Committee operates under the provisions of the *Federal Advisory Committee Act* and 46 U.S.C. 15109. The National Commercial Fishing Safety Advisory Committee provides advice and recommendations to the Secretary of Homeland Security through the Commandant of the U.S. Coast Guard (USCG), on matters relating to the safe operation of vessels including the matters of:

- (A) navigation safety;
- (B) safety equipment and procedures;
- (C) marine insurance;
- (D) vessel design, construction, maintenance, and operation; and
- (E) personnel qualifications and training.

Additionally, the Committee will review regulations proposed under chapter 45 of Title 46 of U.S. Code (during preparation of the regulations) and review marine casualties and investigations of vessels covered by chapter 45 of Title 46 U.S. Code and make recommendations to the Secretary of Homeland Security to improve safety and reduce vessel casualties.

Agenda

Day 1

The agenda for the National Commercial Fishing Safety Advisory Committee meeting is as follows:

- I. Opening
 - a. Call to Order and Designated Federal Officer (DFO) Remarks
 - b. Roll Call and Determination of Quorum
 - c. Swear in New Members
 - d. USCG Leadership Remarks
- II. Administration
 - a. Old Business
 - b. Review and Adoption of Meeting Agenda
 - c. Meeting Goals
 - d. Roberts Rules Simplified
- III. General Updates
 - a. Regulatory Status

IV. Information Session

- a. USCG District Presentations
- b. Office of Investigations and Casualty Analysis (CG–INV) Drug Presentation
- c. Marine Casualty Case Familiarization

V. Public Comment Period

VI. Meeting Recess

Day 2

VII. New Business

a. **Task Statement #04–23:** Review the multi-year statistics (provided by the USCG) regarding commercial fishing vessels of less than 200 gross ton accidents or losses that resulted in fatalities, injuries, or property damage. Major marine casualties such as the loss of the DESTINATION, NO LIMITS, and other fishing vessels with multiple fatalities and vessel losses should be reviewed to provide the background information necessary to other supplementary taskings in best efforts to make informed recommendations to the USCG.

b. **Task Statement #05–23:** Examine and make recommendations to the USCG on best practices to reduce and mitigate the negative consequences caused by the misalignment of state and federal regulations regarding drug laws legalizing the recreational and/or medical use for drugs also classed as dangerous drugs by federal law and applicable transportation related statutes. This is critical for the safety of operations and creating an environment for vessel personnel to work in a drug-free workplace, with special emphasis on critical safety sensitive jobs such as navigation and engineering duties to bring fishing vessels into alignment with other commercial vessels. Develop recommendations that include testing for pre-employment, routine, and reasonable cause. Submit recommendations to the Secretary of Homeland Security.

c. **Task Statement #06–23:** Examine and effectively disseminate recommendations for best practices to ensure full crew access to all parts of a vessel to allow for safe vessel operation. This task should address and examine things like a means to access all areas of the vessel and allow the crew to safely move fore and aft to remove ice, inspect the vessel, and operate critical equipment like the vessel’s anchors and similar gear that does not require the crew to climb over the pot stack (for example, in the case of a vessel carrying pots, nets or similar devices to create pathways for access). Submit recommendations to the Secretary of Homeland Security.

d. *Task Statement #07–23*: Establish best practices for standard procedures and guidance for crew standing navigation watches. This should include a detailed crew orientation for each unique vessel, including the operation of critical equipment and establish clear and easily understood watchstanding orders to protect the safety of the vessel during its applicable operations. This could be accomplished as a standardized form or checklist. Submit recommendations to the Secretary of Homeland Security.

e. *Task Statement #08–23*: Evaluate and provide a comprehensive list of recommendations to the USCG, in the form of best practices (NVICs, policies, training), or amended or new regulations, regarding stability considerations which may pose severe risk to the safety of a fishing vessel such as icing, loading, the need for stability instructions, and vessel modifications. As part of this task, review the USCG's current level of oversight, provide recommendations on its adequacy, and specify needed changes to areas of the fishing safety program that need additional attention. Submit recommendations to the Secretary of Homeland Security.

f. *Task Statement #09–23*: Evaluate and provide recommendations to the USCG for best practices to address the high degree of risk associated with fishing vessel operations and how the acceptance of risk is prevalent and accepted in the fishing industry. Specifically, the Marine Board recommends the committee focus on topics including icing, heavy weather avoidance in voyage planning, and formalizing the navigation watch duties via onboard familiarization and written standard orders to ensure the safety of vessel during its transit and during fishing operations. Submit recommendations to the Secretary of Homeland Security.

g. *Task Statement #10–23*: Evaluate and provide recommendations to the USCG to ensure the most effective means to widely disseminate critical safety information for the commercial fishing industry. Submit recommendations to the Secretary of Homeland Security.

h. *Task Statement #11–23*: Review and provide recommendations on the development of a publicly accessible website that contains all information related to fishing industry activities, including vessel safety, inspections, enforcement, hazards, training, regulations (including proposed regulations), outages of the Rescue 21 system in Alaska and similar outages, and any other fishing-related activities.

Submit recommendations to the Secretary of Homeland Security.

i. *Task Statement #12–23*: Discuss and make recommendations requiring watch alarms on specific types of commercial fishing vessels. Submit recommendations to the Secretary of Homeland Security.

j. *Task Statement #13–23*: Examine and make recommendations to the USCG on a way to widely distribute personal location beacons at minimal expense. Ensure availability and access for crewmembers of these critical lifesaving devices which could be acquired by consortiums, associations, or other organizations for distribution to vessel crews through federally funded grant programs or other programs. Submit recommendations to the Secretary of Homeland Security.

VIII. Subcommittee(s) Break Out and Discussions

a. Action Items by Task

IX. Public Comment Period

X. Committee Discussion and Actions

XI. Meeting Recess

Day 3

XII. Subcommittee Break Out and Discussions

a. Action Items by Task

XIII. Recommendations and Committee Actions

XIV. Full Committee Open Discussion

XV. Public Comment Period

XVI. Present Recommendations on Taskings to the USCG

XVII. Plans for Next Meeting

XVIII. Closing Remarks (Committee and USCG)

XIX. Adjournment of Meeting

A copy of pre-meeting documentation will be available at <https://www.dco.uscg.mil/NCFSAC2023/no> later than September 14, 2023.

Alternatively, you may contact Mr. Jonathan Wendland as noted in the **FOR FURTHER INFORMATION CONTACT** section above.

There will be a public comment period scheduled each day of the meeting. Speakers are requested to limit their comments to 3 minutes. Please note that the public comment period may end before the period allotted, following the last call for comments. Please contact the individual listed in the **FOR FURTHER INFORMATION CONTACT** section to register as a speaker.

Dated: August 30, 2023.

Amy M. Beach,

Captain, U.S. Coast Guard, Director of Inspections and Compliance.

[FR Doc. 2023–19131 Filed 9–5–23; 8:45 am]

BILLING CODE 9110–04–P

DEPARTMENT OF HOMELAND SECURITY

Coast Guard

[Docket Number: USCG–2023–0670]

Area Maritime Security Advisory Committee (AMSC) Sector Columbia River

AGENCY: Coast Guard, DHS.

ACTION: Solicitation for membership.

SUMMARY: The Coast Guard requests individuals interested in serving on the Area Maritime Security Advisory Committee (AMSC), Sector Columbia River submit their applications for membership to the U.S. Coast Guard Captain of the Port (COTP) Sector Columbia River. The Committee assists the Captain of the Port as the Federal Maritime Security Coordinator, Sector Columbia River, in developing, reviewing, and updating the Area Maritime Security Plan for their area of responsibility.

DATES: Requests for membership should reach the U.S. Coast Guard COTP Sector Columbia River by September 19, 2023.

ADDRESSES: Applications for membership should be submitted to the Captain of the Port at the following address: USCG Sector Columbia River, 6767 N Basin Ave., Portland, OR 97217.

FOR FURTHER INFORMATION CONTACT: For questions about submitting an application, or about the AMSC in general, contact Mr. Stuart Blanchette, 503–240–2467, stuart.h.blanchette@uscg.mil.

SUPPLEMENTARY INFORMATION:

I. Basis and Purpose

Section 102 of the Maritime Transportation Security Act (MTSA) of 2002 (Pub. L. 107–295, 116 Stat. 2064) added section 70112 of Title 46 of the U.S. Code and authorized the Secretary of the Department in which the Coast Guard is operating to establish Area Maritime Security Advisory Committees for any port area of the United States. (See 33 U.S.C. 1226; 46 U.S.C. 70112; 33 CFR 1.05–1, 6.01; DHS Delegation No. 00170.1(II)(71), Revision No. 01.3. The MTSA includes a provision exempting these AMSCs from the Federal Advisory Committee Act (FACA), Public Law 92–436, 86 Stat. 470 (5 U.S.C. App. 2).¹ The AMSCs shall assist the Federal Maritime Security Coordinator in the

¹ Public Law 117–286, section 3 placed FACA provisions in 5 U.S.C. chapter 10, and section. 7 repealed FACA “except with respect to rights and duties that matured, penalties that were incurred, or proceedings that were begun before the date of enactment of” Public Law 117–286.

development, review, update, and exercising of the Area Maritime Security Plan for their area of responsibility. Such matters may include, but are not limited to, the following:

(1) Identifying critical port infrastructure and operations; Identifying risks (threats, vulnerabilities, and consequences).

(2) Determining mitigation strategies and implementation methods.

(3) Developing strategies to facilitate the recovery of the MTS after a Transportation Security Incident.

(4) Developing and describing the process to continually evaluate overall port security by considering consequences and vulnerabilities, how they may change over time, and what additional mitigation strategies can be applied; and

(5) Providing advice to and assisting the Federal Maritime Security Coordinator in developing and maintaining the Area Maritime Security Plan.

II. AMSC Membership

Members of the AMSC should have at least five years of experience related to maritime or port security operations. The Sector Columbia River AMSC has 20 members, and we are seeking to fill additional vacancies with this solicitation.

Applicants may be required to pass an appropriate security background check prior to appointment to the committee. Applicants must register with and remain active as a Coast Guard Homeport user if appointed. Terms of office will be for five years; however, a member is eligible to serve additional terms of office. Members will not receive any salary or other compensation for their service on an AMSC. In accordance with 33 CFR 103, members may be selected from Federal, Territorial, or Tribal governments; State government and political subdivisions of the State; local public safety, crisis management, and emergency response agencies; law enforcement and security organizations; maritime industry, including labor; other port stakeholders having a special competence in maritime security; and port stakeholders affected by security practices and policies.

The Coast Guard does not discriminate in selecting committee members on the basis of race, color, religion, sex, national origin, political affiliation, sexual orientation, gender identity, marital status, disability, genetic information, age, membership in an employee organization, or any other non-merit factor. The Coast Guard strives to achieve a widely diverse

candidate pool for all its recruitment actions.

III. Request for Applications

Those seeking membership are not required to submit formal applications to the local Captain of the Port, however, because we do have an obligation to ensure that a specific number of members have the prerequisite maritime security experience, we encourage the submission of resumes highlighting experience in the maritime and security industries.

Dated: August 29, 2023.

Justin W. Noggle,

Captain, U.S. Coast Guard, Captain of the Port Sector Columbia River and Federal Maritime Security Coordinator Sector Columbia River.

[FR Doc. 2023-19141 Filed 9-5-23; 8:45 am]

BILLING CODE 4910-15-P

DEPARTMENT OF HOMELAND SECURITY

Federal Emergency Management Agency

[Docket ID: FEMA-2023-0023; OMB No. 1660-0114]

Agency Information Collection Activities: Proposed Collection, Comment Request; FEMA Preparedness Grants: Port Security Grant Program (PSGP)

AGENCY: Federal Emergency Management Agency, Department of Homeland Security.

ACTION: 60-Day notice of revision and request for comments.

SUMMARY: The Federal Emergency Management Agency (FEMA), as part of its continuing effort to reduce paperwork and respondent burden, invites the general public to take this opportunity to comment on an extension, with change, of a currently approved information collection. In accordance with the requirements of the Paperwork Reduction Act of 1995, this notice seeks comments concerning the information collection activities required to administer the Port Security Grant Program (PSGP) and an additional new form to facilitate extension requests.

DATES: Comments must be submitted on or before November 6, 2023.

ADDRESSES: To avoid duplicate submissions to the docket, please submit comments at www.regulations.gov under Docket ID FEMA-2023-0023. Follow the instructions for submitting comments.

All submissions received must include the agency name and Docket ID. Regardless of the method used to submitting comments or material, all submissions will be posted, without change, to the Federal eRulemaking Portal at <http://www.regulations.gov>, and will include any personal information you provide. Therefore, submitting this information makes it public. You may wish to read the Privacy and Security Notice that is available via a link on the homepage of www.regulations.gov.

FOR FURTHER INFORMATION CONTACT:

Duane Davis, Section Chief, FEMA, Grant Programs Directorate, 202-680-4060, duane.davis@fema.dhs.gov. You may contact the Information Management Division for copies of the proposed collection of information at email address: FEMA-Information-Collections-Management@fema.dhs.gov.

SUPPLEMENTARY INFORMATION: Section 102 of the Maritime Transportation Security Act of 2002, as amended (46 U.S.C. 70107), authorizes the PSGP to provide for the risk-based allocation of funds to implement Area Maritime Transportation Security Plans and facility security plans among port authorities, facility operators, and State and local government agencies required to provide port security services and to train law enforcement personnel under 46 U.S.C. 70132. Before awarding a grant under the program, the Secretary for Homeland Security shall provide for review and comment by the appropriate Federal Maritime Security Coordinators and the Maritime Administrator. In administering the grant program, the Secretary shall consider national economic, energy, and strategic defense concerns based upon the most current risk assessments available.

Any information collected by FEMA for this program is in accordance with general reporting requirements, *for example, see* 2 CFR 200.329; or in accordance with 46 U.S.C. 70107(g), as amended by Section 112(c) of the Security and Accountability For Every (SAFE) Port Act of 2006 (Pub. L. 109-347), which provides that entities subject to an Area Maritime Transportation Security Plan may submit an application for a grant under this program at such time, in such form, and containing such information and assurances as the Secretary may require.

2 CFR 200.329 requires grant recipients to report on the status of their grant funded activities including potential or real setbacks in performance.

The GPD-Extension form, FEMA Form FF-207-FY-23-110 is newly added and

allows FEMA to ensure a consistent review process for extending the Period of Performance of existing grants per 2 CFR 200.309. This form standardizes the information collection as well as the review criteria for extension requests. Information includes the current status of the project, an explanation of delays experienced in completing the project on schedule and anticipated new milestones for completion within the newly requested Period of Performance.

Collection of Information

Title: FEMA Preparedness Grants: Port Security Grant Program (PSGP).

Type of Information Collection: Revision of a currently approved information collection.

OMB Number: 1660-0114.

FEMA Forms: FEMA Form FF-207-FY-23-108 (formerly 089-05), PSGP Investment Justification; FEMA Form FF-207-FY-23-109 (formerly 088-0-1), Grant Programs Directorate Performance Report (GPD-PR), and FEMA Form FF-207-FY-23-110, Grant Programs Directorate Extension Request (GPD-Extension).

Abstract: Section 102 of the Maritime Transportation Security Act of 2002, as amended (46 U.S.C. 70107), authorizes the PSGP to provide for the risk-based allocation of funds to implement Area Maritime Transportation Security Plans and facility security plans among port authorities, facility operators, and State and local government agencies required to provide port security services and to train law enforcement personnel under 46 U.S.C. 70132. Before awarding a grant under the program, the Secretary for Homeland Security shall provide for review and comment by the appropriate Federal Maritime Security Coordinators and the Maritime Administrator. In administering the grant program, the Secretary shall take into account national economic, energy, and strategic defense concerns based upon the most current risk assessments available.

Affected Public: State, local or Tribal government and private sector.

Estimated Number of Respondents: 966.

Estimated Number of Responses: 1,832.

Estimated Total Annual Burden Hours: 17,446.

Estimated Total Annual Respondent Cost: \$1,462,290.

Estimated Respondents' Operation and Maintenance Costs: \$0.

Estimated Respondents' Capital and Start-Up Costs: \$0.

Estimated Total Annual Cost to the Federal Government: \$1,853,355.

Comments

Comments may be submitted as indicated in the **ADDRESSES** caption above. Comments are solicited to (a) evaluate whether the proposed data collection is necessary for the proper performance of the Agency, including whether the information shall have practical utility; evaluate the accuracy of the Agency's estimate of the burden of the proposed collection of information, including the validity of the methodology and assumptions used; (c) enhance the quality, utility, and clarity of the information to be collected; and (d) minimize the burden of the collection of information on those who are to respond, including through the use of appropriate automated, electronic, mechanical, or other technological collection techniques or other forms of information technology, e.g., permitting electronic submission of responses.

Millicent Brown Wilson,

Records Management Branch Chief, Office of the Chief Administrative Officer, Mission Support, Federal Emergency Management Agency, Department of Homeland Security.

[FR Doc. 2023-19147 Filed 9-5-23; 8:45 am]

BILLING CODE 9111-78-P

DEPARTMENT OF HOMELAND SECURITY

U.S. Immigration and Customs Enforcement

[Docket No. ICEB-2023-0005]

RIN 1653-ZA41

Employment Authorization for South Sudanese F-1 Nonimmigrant Students Experiencing Severe Economic Hardship as a Direct Result of the Current Armed Conflict and Humanitarian Crisis in South Sudan

AGENCY: U.S. Immigration and Customs Enforcement; Department of Homeland Security.

ACTION: Notice.

SUMMARY: This notice announces that the Secretary of Homeland Security (Secretary) is suspending certain regulatory requirements for F-1 nonimmigrant students whose country of citizenship is South Sudan, regardless of country of birth (or individuals having no nationality who last habitually resided in South Sudan), and who are experiencing severe economic hardship as a direct result of the current armed conflict and humanitarian crisis in South Sudan. The Secretary is taking action to provide relief to these South Sudanese students

who are in lawful F-1 nonimmigrant students status, so the students may request employment authorization, work an increased number of hours while school is in session, and reduce their course load while continuing to maintain their F-1 nonimmigrant student status. The U.S. Department of Homeland Security (DHS) will deem an F-1 nonimmigrant student granted employment authorization by means of this notice to be engaged in a "full course of study" for the duration of the employment authorization, if the nonimmigrant student satisfies the minimum course load requirement described in this notice.

DATES: This action is effective November 4, 2023, through May 3, 2025.

FOR FURTHER INFORMATION CONTACT: Sharon Snyder, Unit Chief, Policy and Response Unit, Student and Exchange Visitor Program, MS 5600, U.S. Immigration and Customs Enforcement, 500 12th Street SW, Washington, DC 20536-5600; email: sevp@ice.dhs.gov, telephone: (703) 603-3400. This is not a toll-free number. Program information can be found at <https://www.ice.gov/sevis/>.

SUPPLEMENTARY INFORMATION:

What action is DHS taking under this notice?

The Secretary is exercising authority under 8 CFR 214.2(f)(9) to temporarily suspend the applicability of certain requirements governing on-campus and off-campus employment for F-1 nonimmigrant students whose country of citizenship is South Sudan regardless of country of birth (or individuals having no nationality who last habitually resided in South Sudan), who are present in the United States in lawful F-1 nonimmigrant student status on the date of publication of this notice, and who are experiencing severe economic hardship as a direct result of current armed conflict and humanitarian crisis in South Sudan. The original notice, which suspended certain regulatory requirements for F-1 nonimmigrant students experiencing severe economic hardship as a direct result of the humanitarian crisis at that time is effective from March 3, 2022, through November 3, 2023. See 87 FR 12182 (Mar. 3, 2022). Effective with this publication, suspension of the employment limitations is available through May 3, 2025, for those who are in lawful F-1 nonimmigrant status on the date of publication of this notice. DHS will deem an F-1 nonimmigrant student granted employment authorization through this notice to be engaged in a "full course of study" for

the duration of the employment authorization, if the student satisfies the minimum course load set forth in this notice.¹ See 8 CFR 214.2(f)(6)(i)(F).

Who is covered by this notice?

This notice applies exclusively to F–1 nonimmigrant students who meet all of the following conditions:

(1) Are a citizen of South Sudan regardless of country of birth (or an individual having no nationality who last habitually resided in South Sudan);

(2) Were lawfully present in the United States on the date of publication of this notice in F–1 nonimmigrant status under section 101(a)(15)(F)(i) of the Immigration and Nationality Act (INA), 8 U.S.C. 1101(a)(15)(F)(i);

(3) Are enrolled in an academic institution that is Student and Exchange Visitor Program (SEVP)-certified for enrollment for F–1 nonimmigrant students;

(4) Are currently maintaining F–1 nonimmigrant status; and

(5) Are experiencing severe economic hardship as a direct result of the current armed conflict and humanitarian crisis in South Sudan.

This notice applies to F–1 nonimmigrant students in an approved private school in kindergarten through grade 12, public school grades 9 through 12, and undergraduate and graduate education. An F–1 nonimmigrant student covered by this notice who transfers to another SEVP-certified academic institution remains eligible for the relief provided by means of this notice.

Why is DHS taking this action?

DHS is taking action to provide relief to South Sudanese F–1 nonimmigrant students experiencing severe economic hardship due to the current armed conflict and humanitarian crisis in South Sudan. Based on its review of country conditions in South Sudan and input received from the U.S. Department of State (DOS), DHS is taking action to allow eligible F–1 nonimmigrant students from South Sudan to request employment authorization, work an increased number of hours while school is in session, and reduce their course load

while continuing to maintain F–1 nonimmigrant student status.

Despite the 2022 extension of a peace agreement by various parties, South Sudan remains plagued by conflict both among non-signatories to the peace agreement and between groups that are ostensibly at peace with one another.² Violence linked to ongoing armed conflict has resulted in civilian casualties, a dire humanitarian situation, rampant disease, frequent gender-based violence, and food insecurity, made worse by disastrous floods. All of which continues to threaten the safety of potential returnees throughout the country.

Armed Conflict

A principal driver of armed conflict in South Sudan has long been the rivalry between President Silva Kiir and First Vice President Riek Machar, as well as their various supporters and aligned armed groups.^{3,4} In spite of the 2018 peace agreement that established the current transitional government—and to which President Kiir and Vice President Machar were the main signatories—South Sudan frequently faces violent political contestations, and lacks a stable government, which has facilitated ongoing violence that is characterized by gross human rights violations that consistently target civilians and cause mass displacements in various parts of the country.⁵

Multiple parties are responsible for committing crimes and abuses across South Sudan, such as security and opposition forces, non-signatories to the

2022 peace agreement, and civilians.⁶ Government forces have reportedly engaged in collective punishment of civilians perceived to be opposition supporters, an assumption often based on ethnicity.⁷ Delays in implementing security sector reform and demobilization of armed groups have contributed to security forces and ex-combatants exploiting local communities, emboldened by a climate of impunity.⁸ Members of government and opposition forces, associated armed militia groups, and ethnic groups have reportedly committed torture and other abuses in conflict zones.⁹ Additionally, parts of South Sudan also face simmering ethnic conflict that has resulted in dire humanitarian consequences, including significant displacement and human rights abuses, including those involving the killing of civilians, arbitrary arrests and unjust detentions, looting and destruction of civilian property, physical abuse, forced recruitment, and gender-based violence.¹⁰

Gender-Based Violence and Violence Against Children

Armed conflict has had particularly dire consequences for women and children. Women and girls have faced increased cases of sexual violence and harassment, as well as risk of abductions, killings, and threats from armed forces.¹¹ Various parties use gender-based violence as a conflict tactic, including rape, gang rape, sexual slavery, and forced marriage.¹² Impunity for sexual and gender-based

⁶ U.S. Dep't. of State, 2022 Country Reports on Human Rights: South Sudan, 15 (Mar. 20, 2023), available at <https://www.state.gov/reports/2022-country-reports-on-human-rights-practices/south-sudan/> (last visited July 20, 2023).

⁷ 2022 Country Reports on Human Rights: South Sudan, U.S. Dep't. of State, Mar. 20, 2023, available at <https://www.state.gov/reports/2022-country-reports-on-human-rights-practices/south-sudan/> (last visited July 20, 2023).

⁸ Report of the Commission on Human Rights in South Sudan [A/HRC/52/26], UN Human Rights Council, Jan. 31, 2023, available at <https://www.ohchr.org/sites/default/files/documents/hrbodies/hrcouncil/sessions-regular/session52/A-HRC-52-26-AdvanceEditedVersion.pdf> (last visited July 20, 2023).

⁹ 2022 Country Reports on Human Rights: South Sudan, U.S. Dep't. of State, Mar. 20, 2023, available at <https://www.state.gov/reports/2022-country-reports-on-human-rights-practices/south-sudan/> (last visited July 20, 2023).

¹⁰ *Id.*

¹¹ South Sudan Humanitarian Needs Overview 2023, UNOCHA, Nov. 22, 2022, available at <https://reliefweb.int/report/south-sudan/south-sudan-humanitarian-needs-overview-2023-november-2022>, (last visited May 19, 2023).

¹² 2022 Country Reports on Human Rights: South Sudan, U.S. Dep't. of State, Mar. 20, 2023, available at <https://www.state.gov/reports/2022-country-reports-on-human-rights-practices/south-sudan/> (last visited July 20, 2023).

² South Sudan Government Opposition Re-Commit Peace Deal, Reuters, Apr. 4, 2022, available at <https://www.reuters.com/world/africa/south-sudan-government-opposition-re-commit-peace-deal-2022-04-04/#:~:text=At%20a%20signing%20ceremony%20on%20Sunday%20evening%20attended,a%20unified%20command%20structure%20in%20the%20next%20week> (last visited June 15, 2023).

³ Kiir leads the ruling Sudan People's Liberation Movement (SPLM). Machar is associated with the Sudan People's Liberation Movement—In Opposition (SPLM-IO) but contends that he has not formally left the SPLM. Infighting Brings New Split in South Sudan's Ruling Party, VOA News, Oct. 28, 2022, available at <https://www.voanews.com/a/infighting-brings-new-split-in-south-sudan-s-ruling-party/6809882.html> (last visited May 19, 2023).

⁴ South Sudan's Splintered Opposition: Preventing More Conflict, International Crisis Group, Feb. 25, 2022, available at <https://www.crisisgroup.org/africa/horn-of-africa/south-sudan/south-sudan-splintered-opposition-preventing-more-conflict> (last visited May 19, 2023).

⁵ U.N. Human Rights Council, Report of the Commission on Human Rights in South Sudan, 3, U.N. Doc. A/HRC/52/26 (Jan. 31, 2023), available at <https://www.ohchr.org/sites/default/files/documents/hrbodies/hrcouncil/sessions-regular/session52/A-HRC-52-26-AdvanceEditedVersion.pdf> (last visited July 20, 2023).

¹ Because the suspension of requirements under this notice applies throughout an academic term during which the suspension is in effect, DHS considers an F–1 nonimmigrant student who engages in a reduced course load or employment (or both) after this notice is effective to be engaging in a “full course of study,” see 8 CFR 214.2(f)(6), and eligible for employment authorization, through the end of any academic term for which such student is matriculated as of May 3, 2025, provided the student satisfies the minimum course load requirements in this notice.

abuses has continued.¹³ Experts estimate that around 2.8 million people are at risk of gender-based violence in 2023, constituting a nine percent increase over the previous year.¹⁴ Children also remain at great risk of multiple types of abuse and victimization. The United Nations has documented many incidents of what the Special Representative of the Secretary-General for Children and Armed Conflict has identified as the six “grave violations” against children, including recruitment and use by armed groups; killing and maiming; rape and other forms of sexual violence; attacks on schools, hospitals, and protected persons in relation to schools and hospitals.¹⁵

Humanitarian Assistance

As a result of violence and other conditions, an estimated 9.4 million of South Sudan’s total population of more than 12 million people is in need of humanitarian assistance.¹⁶ Multiple factors complicate the provision of relief. Armed groups restrict the safe and effective delivery of assistance, in some cases even harassing or killing aid workers, engaging in looting, and destroying humanitarian assets and facilities.¹⁷ Bureaucratic obstacles and interference further undermine access.¹⁸ Additionally, flooding has prevented physical access to some locations.¹⁹

¹³ South Sudan Humanitarian Needs Overview 2023, UNOCHA, Nov. 22, 2022, available at <https://reliefweb.int/report/south-sudan/south-sudan-humanitarian-needs-overview-2023-november-2022>, (last visited May 19, 2023).

¹⁴ Final Report of the Panel of Experts on South Sudan, UN Security Council [S/2023/294], Apr. 26, 2023, available at <https://reliefweb.int/report/south-sudan/final-report-panel-experts-south-sudan-submitted-pursuant-resolution-2633-2022-s2023294-enar>, (last visited May 19, 2023).

¹⁵ Children and armed conflict in South Sudan, UN Security Council, Feb. 10, 2023, available at https://unmiss.unmissions.org/sites/default/files/sg_report_on_children_and_armed_conflict_in_south_sudan.pdf, (last visited May 17, 2023).

¹⁶ South Sudan—Complex Emergency Fact Sheet #3. Fiscal Year 2023, U.S. Agency for International Development (USAID), Mar. 31, 2023, available at <https://reliefweb.int/report/south-sudan/south-sudan-complex-emergency-fact-sheet-3-fiscal-year-fy-2023> (last visited May 19, 2023).

¹⁷ 2022 Country Reports on Human Rights: South Sudan, U.S. Dep’t. of State, Mar. 20, 2023, available at <https://www.state.gov/reports/2022-country-reports-on-human-rights-practices/south-sudan/> (last visited July 20, 2023).

¹⁸ South Sudan Humanitarian Needs Overview 2023, UNOCHA, Nov. 22, 2022, available at <https://reliefweb.int/report/south-sudan/south-sudan-humanitarian-needs-overview-2023-november-2022>, (last visited May 19, 2023).

¹⁹ South Sudan Humanitarian Situation No. 2:1, UNICEF, Feb. 28, 2023, available at <https://reliefweb.int/report/south-sudan/unicef-south-sudan-humanitarian-situation-report-no-2-1-28-february-2023>, (last visited May 19, 2023).

Food Insecurity and Disease

Acute food insecurity, ongoing subnational violence, poor macroeconomic conditions, and severe flooding continue to drive growing humanitarian needs across South Sudan. Approximately 7.8 million South Sudanese were projected to face “Crisis” levels of acute food insecurity, or worse, between April and July 2023.²⁰ Within this population, 2.9 million people were projected to face “Emergency” levels of acute food security (a level four on the Integrated Food Security Phase Classification (IPC)), and around 43,000 were expected to face “Catastrophe” levels (a level five on the IPC).²¹ Disruption in the agricultural sector has led to a dramatic increase in food prices, thereby exacerbating food insecurity and intensifying poverty.²² Access to food is also sometimes used as a weapon of war.²³

South Sudan is also contending with multiple disease outbreaks. Flood-affected areas have seen the spread of malaria, diarrhea, pneumonia, and skin infections, and the lack of clean water and sanitation suggests that outbreaks of cholera and Hepatitis E are likely to persist.²⁴ There also have been confirmed outbreaks of measles.²⁵ Dozens of health facilities were damaged or relocated due to flooding, further restricting access to care.²⁶

Environmental Concerns

South Sudan has experienced above normal rainfall for four consecutive

²⁰ South Sudan—Complex Emergency Fact Sheet #3. Fiscal Year 2023, U.S. Agency for International Development (USAID), Mar. 31, 2023, available at <https://reliefweb.int/report/south-sudan/south-sudan-complex-emergency-fact-sheet-3-fiscal-year-fy-2023> (last visited May 19, 2023). The “Crisis” level of food security is the third level on the five level Integrated Food Security Phase Classification (IPC) scale, which ranges from “Minimal” (IPC 1) to “Famine” or “Catastrophe” (IPC 5).

²¹ South Sudan—Complex Emergency Fact Sheet #3. Fiscal Year 2023, U.S. Agency for International Development (USAID), Mar. 31, 2023, available at <https://reliefweb.int/report/south-sudan/south-sudan-complex-emergency-fact-sheet-3-fiscal-year-fy-2023> (last visited May 19, 2023).

²² South Sudan Humanitarian Needs Overview 2023, UNOCHA, Nov. 22, 2022, available at <https://reliefweb.int/report/south-sudan/south-sudan-humanitarian-needs-overview-2023-november-2022>, (last visited May 19, 2023).

²³ 2022 Country Reports on Human Rights: South Sudan, U.S. Dep’t. of State, Mar. 20, 2023, available at <https://www.state.gov/reports/2022-country-reports-on-human-rights-practices/south-sudan/> (last visited July 20, 2023).

²⁴ South Sudan Humanitarian Needs Overview 2023, UNOCHA, Nov. 22, 2022, <https://reliefweb.int/report/south-sudan/south-sudan-humanitarian-needs-overview-2023-november-2022>, (last visited May 19, 2023).

²⁵ *Id.*

²⁶ *Id.*

years.²⁷ The effects of rain and flooding are widespread, with the number of people impacted across South Sudan estimated to exceed one million.²⁸ Floods have destroyed crops, homes, schools, health care centers, and boreholes for water access, and efforts to provide relief have been stymied by violence, inaccessibility, and gaps in resources and infrastructure.²⁹

As of August 8, 2023, approximately 130 F–1 nonimmigrant students from South Sudan are enrolled at SEVP-certified academic institutions in the United States. Given the extent of the current armed conflict and humanitarian crisis in South Sudan, affected students whose primary means of financial support comes from South Sudan may need to be exempt from the normal student employment requirements to continue their studies in the United States. The current armed conflict and humanitarian crisis has made it unfeasible for many students to safely return to South Sudan for the foreseeable future. Without employment authorization, these students may lack the means to meet basic living expenses.

What is the minimum course load requirement to maintain valid F–1 nonimmigrant status under this notice?

Undergraduate F–1 nonimmigrant students who receive on-campus or off-campus employment authorization under this notice must remain registered for a minimum of six semester or quarter hours of instruction per academic term. Undergraduate F–1 nonimmigrant students enrolled in a term of different duration must register for at least one half of the credit hours normally required under a “full course of study.” See 8 CFR 214.2(f)(6)(i)(B) and (F). A graduate-level F–1 nonimmigrant student who receives on-campus or off-campus employment authorization under this notice must remain registered for a minimum of three semester or quarter hours of instruction per academic term. See 8 CFR 214.2(f)(5)(v). Nothing in this notice affects the applicability of other minimum course load requirements set by the academic institution.

In addition, an F–1 nonimmigrant student (either undergraduate or graduate) granted on-campus or off-

²⁷ *Id.*

²⁸ South Sudan: Flooding Situation Report No. 1, UNOCHA, Oct. 12, 2022, available at <https://reliefweb.int/report/south-sudan/south-sudan-flooding-situation-report-no-1-31-october-2022>, (last visited May 19, 2023).

²⁹ South Sudan: Flooding Situation Report No. 1, UNOCHA, Oct. 12, 2022, available at <https://reliefweb.int/report/south-sudan/south-sudan-flooding-situation-report-no-1-31-october-2022>, (last visited May 19, 2023).

campus employment authorization under this notice may count up to the equivalent of one class or three credits per session, term, semester, trimester, or quarter of online or distance education toward satisfying this minimum course load requirement, unless their course of study is in an English language study program. *See* 8 CFR 214.2(f)(6)(i)(G). An F–1 nonimmigrant student attending an approved private school in kindergarten through grade 12 or public school in grades 9 through 12 must maintain “class attendance for not less than the minimum number of hours a week prescribed by the school for normal progress toward graduation,” as required under 8 CFR 214.2(f)(6)(i)(E). Nothing in this notice affects the applicability of federal and state labor laws limiting the employment of minors.

May an eligible F–1 nonimmigrant student who already has on-campus or off-campus employment authorization benefit from the suspension of regulatory requirements under this notice?

Yes. An F–1 nonimmigrant student who is a South Sudanese citizen, regardless of country of birth (or an individual having no nationality who last habitually resided in South Sudan), who already has on-campus or off-campus employment authorization and is otherwise eligible may benefit under this notice, which suspends certain regulatory requirements relating to the minimum course load requirement under 8 CFR 214.2(f)(6)(i) and certain employment eligibility requirements under 8 CFR 214.2(f)(9). Such an eligible F–1 nonimmigrant student may benefit without having to apply for a new Form I–766, Employment Authorization Document (EAD). To benefit from this notice, the F–1 nonimmigrant student must request that their designated school official (DSO) enter the following statement in the remarks field of the student’s Student and Exchange Visitor Information System (SEVIS) record, which the student’s Form I–20, Certificate of Eligibility for Nonimmigrant (F–1) Student Status, will reflect:

Approved for more than 20 hours per week of [DSO must insert “on-campus” or “off-campus,” depending upon the type of employment authorization the student already has] employment authorization and reduced course load under the Special Student Relief authorization from [DSO must insert the beginning date of the notice or the beginning date of the student’s employment, whichever date is later] until [DSO must insert either the student’s program end date, the current EAD expiration date (if the student is currently authorized for off-

campus employment), or the end date of this notice, whichever date comes first].³⁰

Must the F–1 nonimmigrant student apply for reinstatement after expiration of this special employment authorization if the student reduces his or her “full course of study”?

No. DHS will deem an F–1 nonimmigrant student who receives and complies with the employment authorization permitted under this notice to be engaged in a “full course of study”³¹ for the duration of the student’s employment authorization, provided that a qualifying undergraduate level F–1 nonimmigrant student remains registered for a minimum of six semester or quarter hours of instruction per academic term, and a qualifying graduate level F–1 nonimmigrant student remains registered for a minimum of three semester or quarter hours of instruction per academic term. *See* 8 CFR 214.2(f)(5)(v) and (f)(6)(i)(F). Undergraduate F–1 nonimmigrant students enrolled in a term of different duration must register for at least one half of the credit hours normally required under a “full course of study.” *See* 8 CFR 214.2(f)(6)(i)(B) and (F). DHS will not require such students to apply for reinstatement under 8 CFR 214.2(f)(16) if they are otherwise maintaining F–1 nonimmigrant status.

Will an F–2 dependent (spouse or minor child) of an F–1 nonimmigrant student covered by this notice be eligible for employment authorization?

No. An F–2 spouse or minor child of an F–1 nonimmigrant student is not authorized to work in the United States and, therefore, may not accept employment under the F–2 nonimmigrant status, consistent with 8 CFR 214.2(f)(15)(i).

Will the suspension of the applicability of the standard student employment requirements apply to an individual who receives an initial F–1 visa and makes an initial entry into the United States after the effective date of this notice in the Federal Register?

No. The suspension of the applicability of the standard regulatory

³⁰ Because the suspension of requirements under this notice applies throughout an academic term during which the suspension is in effect, DHS considers an F–1 nonimmigrant student who engages in a reduced course load or employment (or both) after this notice is effective to be engaging in a “full course of study,” *see* 8 CFR 214.2(f)(6), and eligible for employment authorization, through the end of any academic term for which such student is matriculated as of May 3, 2025, provided the student satisfies the minimum course load requirements in this notice.

³¹ *See* 8 CFR 214.2(f)(6).

requirements only applies to certain F–1 nonimmigrant students who meet the following conditions:

- (1) Are a citizen of South Sudan regardless of country of birth (or an individual having no nationality who last habitually resided in South Sudan);
- (2) Were lawfully present in the United States on the date of publication of this notice in F–1 nonimmigrant status, under section 101(a)(15)(F)(i) of the INA, 8 U.S.C. 1101(a)(15)(F)(i);
- (3) Are enrolled in an academic institution that is SEVP-certified for enrollment of F–1 nonimmigrant students;
- (4) Are maintaining F–1 nonimmigrant status; and
- (5) Are experiencing severe economic hardship as a direct result of the current armed conflict and humanitarian crisis in South Sudan.

An F–1 nonimmigrant student who does not meet all these requirements is ineligible for the suspension of the applicability of the standard regulatory requirements (even if experiencing severe economic hardship as a direct result of the current armed conflict and humanitarian crisis in South Sudan).

Does this notice apply to a continuing F–1 nonimmigrant student who departs the United States after the effective date of this notice in the Federal Register and who needs to obtain a new F–1 visa before returning to the United States to continue an educational program?

Yes. This notice applies to such an F–1 nonimmigrant student, but only if the DSO has properly notated the student’s SEVIS record, which will then appear on the student’s Form I–20. The normal rules for visa issuance remain applicable to a nonimmigrant who needs to apply for a new F–1 visa to continue an educational program in the United States.

Does this notice apply to elementary school, middle school, and high school students in F–1 status?

Yes. However, this notice does not by itself reduce the required course load for F–1 nonimmigrant students from South Sudan enrolled in kindergarten through grade 12 at a private school, or grades 9 through 12 at a public high school. Such students must maintain the minimum number of hours of class attendance per week prescribed by the academic institution for normal progress toward graduation, as required under 8 CFR 214.2(f)(6)(i)(E). The suspension of certain regulatory requirements related to employment through this notice is applicable to all eligible F–1 nonimmigrant students regardless of educational level. Eligible F–1

nonimmigrant students from South Sudan enrolled in an elementary school, middle school, or high school may benefit from the suspension of the requirement in 8 CFR 214.2(f)(9)(i) that limits on-campus employment to 20 hours per week while school is in session.

On-Campus Employment Authorization

Will an F–1 nonimmigrant student who receives on-campus employment authorization under this notice be authorized to work more than 20 hours per week while school is in session?

Yes. For an F–1 nonimmigrant student covered in this notice, the Secretary is suspending the applicability of the requirement in 8 CFR 214.2(f)(9)(i) that limits an F–1 nonimmigrant student's on-campus employment to 20 hours per week while school is in session. An eligible F–1 nonimmigrant student has authorization to work more than 20 hours per week while school is in session if the DSO has entered the following statement in the remarks field of the student's SEVIS record, which will be reflected on the student's Form I–20:

Approved for more than 20 hours per week of on-campus employment and reduced course load, under the Special Student Relief authorization from [DSO must insert the beginning date of this notice or the beginning date of the student's employment, whichever date is later] until [DSO must insert the student's program end date or the end date of this notice, whichever date comes first].³²

To obtain on-campus employment authorization, the F–1 nonimmigrant student must demonstrate to the DSO that the employment is necessary to avoid severe economic hardship directly resulting from the current armed conflict and humanitarian crisis in South Sudan. An F–1 nonimmigrant student authorized by the DSO to engage in on-campus employment by means of this notice does not need to file any applications with U.S. Citizenship and Immigration Services (USCIS). The standard rules permitting full-time on-campus employment when school is not in session or during school vacations apply, as described in 8 CFR 214.2(f)(9)(i).

³² Because the suspension of requirements under this notice applies throughout an academic term during which the suspension is in effect, DHS considers an F–1 nonimmigrant student who engages in a reduced course load or employment (or both) after this notice is effective to be engaging in a "full course of study," see 8 CFR 214.2(f)(6), and eligible for employment authorization, through the end of any academic term for which such student is matriculated as of May 3, 2025, provided the student satisfies the minimum course load requirements in this notice.

Will an F–1 nonimmigrant student who receives on-campus employment authorization under this notice have authorization to reduce the normal course load and still maintain his or her F–1 nonimmigrant student status?

Yes. DHS will deem an F–1 nonimmigrant student who receives on-campus employment authorization under this notice to be engaged in a "full course of study"³³ for the purpose of maintaining their F–1 nonimmigrant student status for the duration of the on-campus employment, if the student satisfies the minimum course load requirement described in this notice, consistent with 8 CFR 214.2(f)(6)(i)(F). However, the authorization to reduce the normal course load is solely for DHS purposes of determining valid F–1 nonimmigrant student status. Nothing in this notice mandates that school officials allow an F–1 nonimmigrant student to take a reduced course load if the reduction would not meet the academic institution's minimum course load requirement for continued enrollment.³⁴

Off-Campus Employment Authorization

What regulatory requirements does this notice temporarily suspend relating to off-campus employment?

For an F–1 nonimmigrant student covered by this notice, as provided under 8 CFR 214.2(f)(9)(ii)(A), the Secretary is suspending the following regulatory requirements relating to off-campus employment:

- (a) The requirement that a student must have been in F–1 nonimmigrant student status for one full academic year to be eligible for off-campus employment;
- (b) The requirement that an F–1 nonimmigrant student must demonstrate that acceptance of employment will not interfere with the student's carrying a full course of study;
- (c) The requirement that limits an F–1 nonimmigrant student's employment authorization to no more than 20 hours per week of off-campus employment while the school is in session; and
- (d) The requirement that the student demonstrate that employment under 8 CFR 214.2(f)(9)(i) is unavailable or otherwise insufficient to meet the needs that have arisen as a result of the unforeseen circumstances.

³³ See 8 CFR 214.2(f)(6).

³⁴ Minimum course load requirement for enrollment in a school must be established in a publicly available document (e.g., catalog, website, or operating procedure), and it must be a standard applicable to all students (U.S. citizens and foreign students) enrolled at the school.

Will an F–1 nonimmigrant student who receives off-campus employment authorization under this notice have authorization to reduce the normal course load and still maintain F–1 nonimmigrant status?

Yes. DHS will deem an F–1 nonimmigrant student who receives off-campus employment authorization by means of this notice to be engaged in a "full course of study"³⁵ for the purpose of maintaining F–1 nonimmigrant student status for the duration of the student's employment authorization if the student satisfies the minimum course load requirement described in this notice, consistent with 8 CFR 214.2(f)(6)(i)(F). However, the authorization for a reduced course load is solely for DHS purposes of determining valid F–1 nonimmigrant student status. Nothing in this notice mandates that school officials allow an F–1 nonimmigrant student to take a reduced course load if such reduced course load would not meet the school's minimum course load requirement.³⁶

How may an eligible F–1 nonimmigrant student obtain employment authorization for off-campus employment with a reduced course load under this notice?

An F–1 nonimmigrant student must file a Form I–765, Application for Employment Authorization, with USCIS to apply for off-campus employment authorization based on severe economic hardship directly resulting from the current armed conflict and humanitarian crisis in South Sudan.³⁷ Filing instructions are located at <https://www.uscis.gov/i-765>.

Fee considerations. Submission of a Form I–765 currently requires payment of a \$410 fee. An applicant who is unable to pay the fee may submit a completed Form I–912, Request for Fee Waiver, along with the Form I–765, Application for Employment Authorization. See <https://www.uscis.gov/forms/filing-fees/additional-information-on-filing-a-fee-waiver>. The submission must include an explanation about why USCIS should grant the fee waiver and the reason(s) for the inability to pay, and any evidence to support the reason(s). See 8 CFR 103.7(c) (Oct. 1, 2020).

Supporting documentation. An F–1 nonimmigrant student seeking off-

³⁵ See 8 CFR 214.2(f)(6).

³⁶ Minimum course load requirement for enrollment in a school must be established in a publicly available document (e.g., catalog, website, or operating procedure), and it must be a standard applicable to all students (U.S. citizens and foreign students) enrolled at the school.

³⁷ See 8 CFR 274a.12(c)(3)(iii).

campus employment authorization due to severe economic hardship must demonstrate the following to their DSO:

(1) This employment is necessary to avoid severe economic hardship; and

(2) The hardship is a direct result of the current armed conflict and humanitarian crisis in South Sudan.

If the DSO agrees that the F–1 nonimmigrant student is entitled to receive such employment authorization, the DSO must recommend application approval to USCIS by entering the following statement in the remarks field of the student's SEVIS record, which will then appear on that student's Form I–20:

Recommended for off-campus employment authorization in excess of 20 hours per week and reduced course load under the Special Student Relief authorization from the date of the USCIS authorization noted on Form I–766 until [DSO must insert the program end date or the end date of this notice, whichever date comes first].³⁸

The F–1 nonimmigrant student must then file the properly endorsed Form I–20 and Form I–765 according to the instructions for the Form I–765. The F–1 nonimmigrant student may begin working off campus only upon receipt of the EAD from USCIS.

DSO recommendation. In making a recommendation that an F–1 nonimmigrant student be approved for Special Student Relief, the DSO certifies that:

(a) The F–1 nonimmigrant student is in good academic standing and is carrying a “full course of study”³⁹ at the time of the request for employment authorization;

(b) The F–1 nonimmigrant student is a citizen of South Sudan, regardless of country of birth (or an individual having no nationality who last habitually resided in South Sudan), and is experiencing severe economic hardship as a direct result of the current armed conflict and humanitarian crisis in South Sudan, as documented on the Form I–20;

(c) The F–1 nonimmigrant student has confirmed that the student will comply with the reduced course load requirements of this notice and register for the duration of the authorized

employment for a minimum of six semester or quarter hours of instruction per academic term if at the undergraduate level, or for a minimum of three semester or quarter hours of instruction per academic term if the student is at the graduate level;⁴⁰ and

(d) The off-campus employment is necessary to alleviate severe economic hardship to the individual as a direct result of the current armed conflict and humanitarian crisis in South Sudan.

Processing. To facilitate prompt adjudication of the student's application for off-campus employment authorization under 8 CFR

214.2(f)(9)(ii)(C), the F–1 nonimmigrant student should do both of the following:

(a) Ensure that the application package includes the following documents:

(1) A completed Form I–765 with all applicable supporting evidence;

(2) The required fee or properly documented fee waiver request as defined in 8 CFR 103.7(c) (Oct. 1, 2020); and

(3) A signed and dated copy of the student's Form I–20 with the appropriate DSO recommendation, as previously described in this notice; and

(b) Send the application in an envelope which is clearly marked on the front of the envelope, bottom right-hand side, with the phrase “SPECIAL STUDENT RELIEF.”⁴¹ Failure to include this notation may result in significant processing delays.

If USCIS approves the student's Form I–765, USCIS will send the student a Form I–766 EAD as evidence of employment authorization. The EAD will contain an expiration date that does not exceed the end of the granted temporary relief.

Temporary Protected Status (TPS) Considerations

Can an F–1 nonimmigrant student apply for TPS and for benefits under this notice at the same time?

Yes. An F–1 nonimmigrant student who has not yet applied for TPS or for other relief that reduces the student's course load per term and permits an increased number of work hours per week, such as Special Student Relief,⁴² under this notice has two options.

Under the first option, the F–1 nonimmigrant student may apply for TPS according to the instructions in the USCIS notice designating South Sudan

for TPS elsewhere in this issue of the **Federal Register**. All TPS applicants must file a Form I–821, Application for Temporary Protected Status, with the appropriate fee (or request a fee waiver). Although not required to do so, if F–1 nonimmigrant students want to obtain a new TPS-related EAD that is valid through May 3, 2025, and to be eligible for automatic EAD extensions that may be available to certain EADs with an A–12 or C–19 category code, they must file Form I–765 and pay the Form I–765 fee (or request a fee waiver). After receiving the TPS-related EAD, an F–1 nonimmigrant student may request that their DSO make the required entry in SEVIS and issue an updated Form I–20, which notates that the nonimmigrant student has been authorized to carry a reduced course load, as described in this notice. As long as the F–1 nonimmigrant student maintains the minimum course load described in this notice, does not otherwise violate their nonimmigrant status, including as provided under 8 CFR 214.1(g), and maintains TPS, then the student maintains F–1 status and TPS concurrently.

Under the second option, the F–1 nonimmigrant student may apply for an EAD under Special Student Relief by filing Form I–765 with the location specified in the filing instructions. At the same time, the F–1 nonimmigrant student may file a separate TPS application but must submit the Form I–821 according to the instructions provided in the **Federal Register** notice designating South Sudan for TPS. If the F–1 nonimmigrant student has already applied for employment authorization under Special Student Relief, they are not required to submit the Form I–765 as part of the TPS application. However, some nonimmigrant students may wish to obtain a TPS-related EAD in light of certain extensions that may be available to EADs with an A–12 or C–19 category code that are not available to the C–3 category under which Special Student Relief falls. The F–1 nonimmigrant student should check the appropriate box when filling out Form I–821 to indicate whether a TPS-related EAD is being requested. Again, so long as the F–1 nonimmigrant student maintains the minimum course load described in this notice and does not otherwise violate the student's nonimmigrant status, included as provided under 8 CFR 214.1(g), the nonimmigrant will be able to maintain compliance requirements for F–1 nonimmigrant student status while having TPS.

³⁸ Because the suspension of requirements under this notice applies throughout an academic term during which the suspension is in effect, DHS considers an F–1 nonimmigrant student who engages in a reduced course load or employment (or both) after this notice is effective to be engaging in a “full course of study,” see 8 CFR 214.2(f)(6), and eligible for employment authorization, through the end of any academic term for which such student is matriculated as of May 3, 2025, provided the student satisfies the minimum course load requirements in this notice.

³⁹ See 8 CFR 214.2(f)(6).

⁴⁰ 8 CFR 214.2(f)(5)(v).

⁴¹ Guidance for direct filing addresses can be found here: <https://www.uscis.gov/i-765-addresses>.

⁴² See DHS Study in the States, Special Student Relief, <https://studyinthestates.dhs.gov/students/special-student-relief> (last visited May 10, 2023).

When a student applies simultaneously for TPS and benefits under this notice, what is the minimum course load requirement while an application for employment authorization is pending?

The F–1 nonimmigrant student must maintain normal course load requirements for a “full course of study”⁴³ unless or until the nonimmigrant student receives employment authorization under this notice. TPS-related employment authorization, by itself, does not authorize a nonimmigrant student to drop below twelve credit hours, or otherwise applicable minimum requirements (e.g., clock hours for non-traditional academic programs). Once approved for a TPS-related EAD and Special Student Relief employment authorization, as indicated by the DSO’s required entry in SEVIS and issuance of an updated Form I–20, the F–1 nonimmigrant student may drop below twelve credit hours, or otherwise applicable minimum requirements (with a minimum of six semester or quarter hours of instruction per academic term if at the undergraduate level, or for a minimum of three semester or quarter hours of instruction per academic term if at the graduate level). See 8 CFR 214.2(f)(5)(v), (f)(6), and (f)(9)(i) and (ii).

How does a student who has received a TPS-related EAD then apply for authorization to take a reduced course load under this notice?

There is no further application process with USCIS if a student has been approved for a TPS-related EAD. The F–1 nonimmigrant student must demonstrate and provide documentation to the DSO of the direct economic hardship resulting from the current armed conflict and humanitarian crisis in South Sudan. The DSO will then verify and update the student’s record in SEVIS to enable the F–1 nonimmigrant student with TPS to reduce the course load without any further action or application. No other EAD needs to be issued for the F–1 nonimmigrant student to have employment authorization.

Can a noncitizen who has been granted TPS apply for reinstatement of F–1 nonimmigrant student status after the noncitizen’s F–1 nonimmigrant student status has lapsed?

Yes. Regulations permit certain students who fall out of F–1 nonimmigrant student status to apply for reinstatement. See 8 CFR 214.2(f)(16). This provision may apply to students who worked on a TPS-

related EAD or dropped their course load before publication of this notice, and therefore fell out of student status. These students must satisfy the criteria set forth in the F–1 nonimmigrant student status reinstatement regulations.

How long will this notice remain in effect?

This notice grants temporary relief until May 3, 2025,⁴⁴ to eligible F–1 nonimmigrant students. DHS will continue to monitor the situation in South Sudan. Should the special provisions authorized by this notice need modification or extension, DHS will announce such changes in the **Federal Register**.

Paperwork Reduction Act (PRA)

An F–1 nonimmigrant student seeking off-campus employment authorization due to severe economic hardship resulting from the current armed conflict and humanitarian crisis in South Sudan must demonstrate to the DSO that this employment is necessary to avoid severe economic hardship. A DSO who agrees that a nonimmigrant student should receive such employment authorization must recommend an application approval to USCIS by entering information in the remarks field of the student’s SEVIS record. The authority to collect this information is in the SEVIS collection of information currently approved by the Office of Management and Budget (OMB) under OMB Control Number 1653–0038.

This notice also allows an eligible F–1 nonimmigrant student to request employment authorization, work an increased number of hours while the academic institution is in session, and reduce their course load while continuing to maintain F–1 nonimmigrant student status.

To apply for employment authorization, certain F–1 nonimmigrant students must complete and submit a currently approved Form I–765 according to the instructions on the form. OMB has previously approved the collection of information contained on the current Form I–765, consistent with the PRA (OMB Control No. 1615–0040). Although there will be a slight

increase in the number of Form I–765 filings because of this notice, the number of filings currently contained in the OMB annual inventory for Form I–765 is sufficient to cover the additional filings. Accordingly, there is no further action required under the PRA.

Alejandro Mayorkas,

Secretary, U.S. Department of Homeland Security.

[FR Doc. 2023–19320 Filed 9–5–23; 8:45 am]

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DEPARTMENT OF HOMELAND SECURITY

U.S. Citizenship and Immigration Services

[CIS No. 2748–23; DHS Docket No. USCIS–2014–004]

RIN 1615–ZB79

Extension and Redesignation of South Sudan for Temporary Protected Status

AGENCY: U.S. Citizenship and Immigration Services (USCIS), Department of Homeland Security (DHS).

ACTION: Notice of Temporary Protected Status (TPS) extension and redesignation.

SUMMARY: Through this notice, the Department of Homeland Security (DHS) announces that the Secretary of Homeland Security (Secretary) is extending the designation of South Sudan for Temporary Protected Status (TPS) for 18 months, beginning on November 4, 2023, and ending on May 3, 2025. This extension allows existing TPS beneficiaries to retain TPS through May 3, 2025, so long as they otherwise continue to meet the eligibility requirements for TPS. Existing TPS beneficiaries who wish to extend their status through May 3, 2025, must re-register during the 60-day re-registration period described in this notice. The Secretary is also redesignating South Sudan for TPS. The redesignation of South Sudan allows additional South Sudanese nationals (and individuals having no nationality who last habitually resided in South Sudan) who have been continuously residing in the United States since September 4, 2023, to apply for TPS for the first time during the initial registration period described under the redesignation information in this notice. In addition to demonstrating continuous residence in the United States since September 4, 2023, and meeting other eligibility criteria, initial applicants for TPS under this designation must demonstrate that they

⁴³ See 8 CFR 214.2(f)(6).

⁴⁴ Because the suspension of requirements under this notice applies throughout an academic term during which the suspension is in effect, DHS considers an F–1 nonimmigrant student who engages in a reduced course load or employment (or both) after this notice is effective to be engaging in a “full course of study,” see 8 CFR 214.2(f)(6), and eligible for employment authorization, through the end of any academic term for which such student is matriculated as of May 3, 2025, provided the student satisfies the minimum course load requirements in this notice.

have been continuously physically present in the United States since November 4, 2023, the effective date of this redesignation of South Sudan for TPS.

DATES:

Extension of Designation of South Sudan for TPS: The 18-month designation of South Sudan for TPS begins on November 4, 2023, and will remain in effect for 18 months, ending on May 3, 2025. The extension impacts existing beneficiaries of TPS.

Re-registration: The 60-day re-registration period for existing beneficiaries runs from September 6, 2023 through November 6, 2023. (Note: It is important for re-registrants to timely re-register during the registration period and not to wait until their Employment Authorization Documents (EADs) expire, as delaying re-registration could result in gaps in their employment authorization documentation.)

Redesignation of South Sudan for TPS: The 18-month redesignation of South Sudan for TPS begins on November 4, 2023, and will remain in effect for 18 months, ending on May 3, 2025. The redesignation impacts potential first-time applicants and others who do not currently have TPS.

First-time Registration: The initial registration period for new applicants under the South Sudan TPS redesignation begins on September 6, 2023 and will remain in effect through May 3, 2025.

FOR FURTHER INFORMATION CONTACT:

- You may contact Rená Cutlip-Mason, Chief, Humanitarian Affairs Division, Office of Policy and Strategy, U.S. Citizenship and Immigration Services, Department of Homeland Security, by mail at 5900 Capital Gateway Drive, Camp Springs, MD 20746, or by phone at 800-375-5283.
- For further information on TPS, including guidance on the registration process and additional information on eligibility, please visit the USCIS TPS web page at <https://www.uscis.gov/tps>. You can find specific information about South Sudan's TPS designation by selecting "South Sudan" from the menu on the left side of the TPS web page.
- If you have additional questions about TPS, please visit uscis.gov/tools. Our online virtual assistant, Emma, can answer many of your questions and point you to additional information on our website. If you are unable to find your answers there, you may also call our USCIS Contact Center at 800-375-5283 (TTY 800-767-1833).
- Applicants seeking information about the status of their individual cases

may check Case Status Online, available on the USCIS website at uscis.gov, or visit the USCIS Contact Center at <https://www.uscis.gov/contactcenter>.

- Further information will also be available at local USCIS offices upon publication of this notice.

SUPPLEMENTARY INFORMATION:

Table of Abbreviations

BIA—Board of Immigration Appeals
CFR—Code of Federal Regulations
DHS—U.S. Department of Homeland Security
DOS—U.S. Department of State
EAD—Employment Authorization Document
FNC—Final Nonconfirmation
Form I-131—Application for Travel Document
Form I-765—Application for Employment Authorization
Form I-797—Notice of Action
Form I-821—Application for Temporary Protected Status
Form I-9—Employment Eligibility Verification
Form I-912—Request for Fee Waiver
Form I-94—Arrival/Departure Record
FR—Federal Register
Government—U.S. Government
IER—U.S. Department of Justice, Civil Rights Division, Immigrant and Employee Rights Section
IJ—Immigration Judge
INA—Immigration and Nationality Act
SAVE—USCIS Systematic Alien Verification for Entitlements Program
Secretary—Secretary of Homeland Security
TPS—Temporary Protected Status
TTY—Text Telephone
USCIS—U.S. Citizenship and Immigration Services
U.S.C.—United States Code

Purpose of this Action (TPS)

Through this notice, DHS sets forth procedures necessary for nationals of South Sudan (or individuals having no nationality who last habitually resided in South Sudan) to (1) re-register for TPS and to apply for renewal of their EADs with USCIS or (2) submit an initial registration application under the redesignation and apply for an EAD.

Re-registration is limited to individuals who have previously registered for TPS under the prior designation of South Sudan and whose applications have been granted. Failure to re-register properly within the 60-day re-registration period may result in the withdrawal of your TPS following appropriate procedures. *See* 8 CFR 244.14.

For individuals who have already been granted TPS under South Sudan's designation, the 60-day re-registration period runs from September 6, 2023 through November 6, 2023. USCIS will issue new EADs with a May 3, 2025 expiration date to eligible South Sudanese TPS beneficiaries who timely

re-register and apply for EADs. Given the time frames involved with processing TPS re-registration applications, DHS recognizes that not all re-registrants may receive new EADs before their current EADs expire. Accordingly, through this **Federal Register** notice, DHS automatically extends the validity of certain EADs previously issued under the TPS designation of South Sudan through November 3, 2024. Therefore, as proof of continued employment authorization through November 3, 2024, TPS beneficiaries can show their EADs that have the notation A-12 or C-19 under Category and a "Card Expires" date of November 3, 2023. This notice explains how TPS beneficiaries and their employers may determine which EADs are automatically extended and how this affects the Form I-9, Employment Eligibility Verification, E-Verify, and USCIS Systematic Alien Verification for Entitlements (SAVE) processes.

Individuals who have a South Sudan TPS application (Form I-821) and/or Application for Employment Authorization (Form I-765) that was still pending as of September 6, 2023 do not need to file either application again. If USCIS approves an individual's pending Form I-821, USCIS will grant the individual TPS through May 3, 2025. Similarly, if USCIS approves a pending TPS-related Form I-765, USCIS will issue the individual a new EAD that will be valid through the same date. There are currently approximately 133 beneficiaries under South Sudan's TPS designation.

Under the redesignation, individuals who currently do not have TPS may submit an initial application during the initial registration period that runs from September 6, 2023 through the full length of the redesignation period ending May 3, 2025. In addition to demonstrating continuous residence in the United States since September 4, 2023, and meeting other eligibility criteria, initial applicants for TPS under this redesignation must demonstrate that they have been continuously physically present in the United States since November 4, 2023,¹ the effective date of this redesignation of South Sudan, before USCIS may grant them

¹ The "continuous physical presence date" (CPP) is the effective date of the most recent TPS designation of the country, which is either the publication date of the designation announcement in the **Federal Register** or such later date as the Secretary may establish. The "continuous residence date" (CR) is any date established by the Secretary when a country is designated (or sometimes redesignated) for TPS. *See* INA sec. 244(b)(2)(A) (effective date of designation); 244(c)(1)(A)(i-ii) (CR and CPP date requirements); 8 U.S.C. 1254a(b)(2)(A); 1254a(c)(1)(A)(i-ii).

TPS. DHS estimates that approximately 140 individuals may become newly eligible for TPS under the redesignation of South Sudan.

What is Temporary Protected Status (TPS)?

- TPS is a temporary immigration status granted to eligible nationals of a foreign state designated for TPS under the INA, or to eligible individuals without nationality who last habitually resided in the designated foreign state, regardless of their country of birth.
- During the TPS designation period, TPS beneficiaries are eligible to remain in the United States, may not be removed, and are authorized to obtain EADs so long as they continue to meet the requirements of TPS.
- TPS beneficiaries may also apply for and be granted travel authorization as a matter of DHS discretion.
- To qualify for TPS, beneficiaries must meet the eligibility standards at INA section 244(c)(1)–(2), 8 U.S.C. 1254a(c)(1)–(2).
- When the Secretary terminates a foreign state's TPS designation, beneficiaries return to one of the following:
 - The same immigration status or category that they maintained before TPS, if any (unless that status or category has since expired or terminated); or
 - Any other lawfully obtained immigration status or category they received while registered for TPS, as long as it is still valid beyond the date TPS terminates.

When was South Sudan designated for TPS?

South Sudan was initially designated for TPS on October 13, 2011, on the dual bases of ongoing armed conflict and extraordinary and temporary conditions that prevented nationals of South Sudan from safely returning.² Following the initial designation, DHS extended and redesignated South Sudan for TPS in 2013, 2014, and 2016.³ In 2017, 2019, and 2020, DHS extended TPS for South Sudan, based on ongoing armed conflict and extraordinary and temporary conditions.⁴ Most recently, in

March 2022, DHS extended and redesignated South Sudan for TPS for 18 months based on ongoing armed conflict and extraordinary and temporary conditions, from May 3, 2022, to November 3, 2023.⁵

What authority does the Secretary have to extend the designation South Sudan for TPS?

Section 244(b)(1) of the INA, 8 U.S.C. 1254a(b)(1), authorizes the Secretary, after consultation with appropriate agencies of the U.S. Government, to designate a foreign state (or part thereof) for TPS if the Secretary determines that certain country conditions exist.⁶ The decision to designate any foreign state (or part thereof) is a discretionary decision, and there is no judicial review of any determination with respect to the designation, termination, or extension of a designation. *See* INA sec. 244(b)(5)(A), 8 U.S.C. 1254a(b)(5)(A). The Secretary, in his or her discretion, may then grant TPS to eligible nationals of that foreign state (or individuals having no nationality who last habitually resided in the designated foreign state). *See* INA sec. 244(a)(1)(A), 8 U.S.C. 1254a(a)(1)(A).

At least 60 days before the expiration of a foreign state's TPS designation or extension, the Secretary, after consultation with appropriate U.S. Government agencies, must review the conditions in the foreign state designated for TPS to determine whether they continue to meet the conditions for the TPS designation. *See* INA sec. 244(b)(3)(A), 8 U.S.C. 1254a(b)(3)(A). If the Secretary determines that the foreign state continues to meet the conditions for

Temporary Protected Status, 84 FR 13688 (Apr. 5, 2019); and *Extension of the Designation of South Sudan for Temporary Protected Status*, 85 FR 69344 (Nov. 2, 2020).

⁵ *See Extension and Redesignation of South Sudan for Temporary Protected Status*, 87 FR 12190 (Mar. 3, 2022).

⁶ INA sec. 244(b)(1) ascribes this power to the Attorney General. Congress transferred this authority from the Attorney General to the Secretary of Homeland Security. *See* Homeland Security Act of 2002, Public Law 107–296, 116 Stat. 2135 (2002). The Secretary may designate a country (or part of a country) for TPS on the basis of ongoing armed conflict such that returning would pose a serious threat to the personal safety of the country's nationals and habitual residents, environmental disaster (including an epidemic), or extraordinary and temporary conditions in the country that prevent the safe return of the country's nationals. For environmental disaster-based designations, certain other statutory requirements must be met, including that the foreign government must request TPS. A designation based on extraordinary and temporary conditions cannot be made if the Secretary finds that allowing the country's nationals to remain temporarily in the United States is contrary to the U.S. national interest. INA sec. 244(b)(1); 8 U.S.C. 1254a(b)(1).

TPS designation, the designation will be extended for an additional period of 6 months or, in the Secretary's discretion, 12 or 18 months. *See* INA sec.

244(b)(3)(A), (C), 8 U.S.C.

1254a(b)(3)(A), (C). If the Secretary determines that the foreign state no longer meets the conditions for TPS designation, the Secretary must terminate the designation. *See* INA sec. 244(b)(3)(B), 8 U.S.C. 1254a(b)(3)(B).

What is the Secretary's authority to redesignate South Sudan for TPS?

In addition to extending an existing TPS designation, the Secretary, after consultation with appropriate Government agencies, may redesignate a country (or part thereof) for TPS. *See* INA sec. 244(b)(1), 8 U.S.C. 1254a(b)(1); *see also* INA sec. 244(c)(1)(A)(i), 8 U.S.C. 1254a(c)(1)(A)(i) (requiring that “the alien has been continuously physically present since the effective date of the most recent designation of the state”) (emphasis added).⁷

When the Secretary designates or redesignates a country for TPS, the Secretary also has the discretion to establish the date from which TPS applicants must demonstrate that they have been “continuously resid[ing]” in the United States. *See* INA sec. 244(c)(1)(A)(ii), 8 U.S.C. 1254a(c)(1)(A)(ii). The Secretary has determined that the “continuous residence” date for applicants for TPS under the redesignation of South Sudan shall be September 4, 2023. Initial applicants for TPS under this redesignation must also show they have been “continuously physically present” in the United States since November 4, 2023, which is the effective date of the Secretary's redesignation, of South Sudan. *See* INA sec. 244(c)(1)(A)(i), 8 U.S.C. 1254a(c)(1)(A)(i). For each initial TPS application filed under the redesignation, the final determination of whether the applicant has met the “continuous physical presence” requirement cannot be made until November 4, 2023, the effective date of this redesignation for South Sudan. USCIS, however, will issue employment authorization documentation, as appropriate, during the registration

⁷ The extension and redesignation of TPS for South Sudan is one of several instances in which the Secretary and, prior to the establishment of DHS, the Attorney General, have simultaneously extended a country's TPS designation and redesignated the country for TPS. *See, e.g., Extension and Redesignation of Haiti for Temporary Protected Status*, 76 FR 29000 (May 19, 2011); *Extension and Re-designation of Temporary Protected Status for Sudan*, 69 FR 60168 (Oct. 7, 2004); *Extension of Designation and Redesignation of Liberia Under Temporary Protected Status Program*, 62 FR 16608 (Apr. 7, 1997).

² *See Designation of Republic of South Sudan for Temporary Protected Status*, 76 FR 63629 (Oct. 13, 2011).

³ *See Extension and Redesignation of South Sudan for Temporary Protected Status*, 78 FR 1866 (Jan. 9, 2013); *Extension and Redesignation of South Sudan for Temporary Protected Status*, 79 FR 52019 (Sept. 2, 2014); and *Extension and Redesignation of South Sudan for Temporary Protected Status*, 81 FR 4051 (Jan. 25, 2016).

⁴ *See Extension of South Sudan for Temporary Protected Status*, 82 FR 44205 (Sept. 21, 2017); *Extension of the Designation of South Sudan for*

period in accordance with 8 CFR 244.5(b).

Why is the Secretary extending the TPS designation for South Sudan and simultaneously redesignating South Sudan for TPS through May 3, 2025?

DHS has reviewed country conditions in South Sudan. Based on the review, including input received from the Department of State (DOS), the Secretary has determined that an 18-month TPS extension is warranted because ongoing armed conflict and extraordinary and temporary conditions supporting South Sudan's TPS designation remain. The Secretary has further determined that redesignating South Sudan for TPS under INA section 244(b)(3)(C), 8 U.S.C. 1254a(b)(3)(C) is warranted and is changing the "continuous residence" and "continuous physical presence" dates that applicants must meet to be eligible for TPS.

Armed Conflict

As in prior years, the armed conflicts in South Sudan consist of fighting among various factions associated with the government, as well as between government forces and militant groups, such as the National Salvation Front (also known as the NAS).⁸ A principal driver of armed conflict within the government has long been the rivalry between President Salva Kiir Mayardit and First Vice President Riek Machar, as well as their various supporters and aligned armed groups.^{9 10} In spite of the 2018 peace agreement that established the current transitional government—and to which President Kiir and Vice President Machar were signatories—South Sudan faces "often violent political contestations," and the lack of stable government has facilitated ongoing violence that is "nearly always characterized by gross human rights violations that [have] targeted civilians and caused mass displacements" in parts of the country.¹¹ Conflict among

armed actors, including the South Sudan People's Defence Force (SSPDF), the Sudan People's Liberation Movement—In Opposition (SPLM–IO), and the NAS have continued in 2023.¹² In March 2023, media reported mobilization of forces allied to the government and the SPLM–IO as the groups prepared to "return to war" with one another.¹³

Multiple parties are responsible for committing crimes and human rights abuses across South Sudan, with reports that "security forces, opposition forces, armed militias affiliated with the government and the opposition, nonsignatories to the peace agreement, and civilians were responsible for a significant range of conflict-related abuses around the country."¹⁴ Government forces have reportedly engaged in collective punishment of civilians perceived to be opposition supporters, an assumption often based on ethnicity.¹⁵ Delays in implementing security sector reform and demobilization of armed groups have contributed to security forces and ex-combatants exploiting local communities, emboldened by a climate of impunity.¹⁶ Members of government and opposition forces, associated armed militia groups, and ethnic groups are reported to have committed torture and other ill-treatment in conflict zones.¹⁷ The "simmering ethnic conflict" in parts of South Sudan has resulted in dire humanitarian consequences, including significant displacement and reports of human rights violations and

abuses, including those involving the killing of civilians, arbitrary arrests or unjust detentions, looting and destruction of civilian property, physical abuse, forced recruitment, and gender-based violence.¹⁸

Armed conflict has had particularly dire consequences for women and children. Women and girls have faced increased cases of sexual violence and harassment, as well as risk of abductions, killings, and threats from armed forces.¹⁹ Various parties use gender-based violence as a conflict tactic, including rape, gang rape, sexual slavery, and forced marriage.²⁰ Impunity for gender-based abuses, including sexual abuses, has continued.²¹ Experts estimate that around 2.8 million people are at risk of gender-based violence in 2023, constituting a nine percent increase over the previous year.²² Children also remain at great risk of multiple types of abuse and victimization. The United Nations has documented many incidences of what the Special Representative of the Secretary-General for Children and Armed Conflict has identified as the six "grave violations against children," including recruitment and use by armed groups; killing and maiming; rape and other forms of sexual violence; attacks on schools, hospitals, and protected persons in relation to schools and/or hospitals; abduction; and denial of humanitarian access.²³

Environmental and Health Concerns

South Sudan has experienced above normal rainfall for four consecutive years.²⁴ The effects of rain and flooding

¹⁸ *Id.* at 27.

¹⁹ UN Office for the Coordination of Humanitarian Affairs (UNOCHA), South Sudan Humanitarian Needs Overview 2023, pg. 7, Nov. 22, 2022, <https://reliefweb.int/report/south-sudan/south-sudan-humanitarian-needs-overview-2023-november-2022> (last visited May 19, 2023).

²⁰ U.S. Dep't. of State, 2022 Country Reports on Human Rights: South Sudan, pg. 17, Mar. 20, 2023, https://www.state.gov/wp-content/uploads/2023/03/415610_SOUTH-SUDAN-2022-HUMAN-RIGHTS-REPORT.pdf.

²¹ UNOCHA, South Sudan Humanitarian Needs Overview 2023, pg. 13, Nov. 22, 2022, <https://reliefweb.int/report/south-sudan/south-sudan-humanitarian-needs-overview-2023-november-2022>, (last visited May 19, 2023).

²² U.N. Security Council, Final Report of the Panel of Experts on South Sudan, pg. 17, U.N. Doc. S/2023/294, Apr. 26, 2023, <https://reliefweb.int/report/south-sudan/final-report-panel-experts-south-sudan-submitted-pursuant-resolution-2633-2022-s2023294-enar>, (last visited May 19, 2023).

²³ UN Security Council, Children and armed conflict in South Sudan, pg. 1, Feb. 10, 2023, https://unmiss.unmissions.org/sites/default/files/sg_report_on_children_and_armed_conflict_in_south_sudan.pdf.

²⁴ UNOCHA, South Sudan Humanitarian Needs Overview 2023, pg. 6, Nov. 22, 2022, <https://reliefweb.int/report/south-sudan/south-sudan>.

3, U.N. Doc. A/HRC/52/26, Jan. 31, 2023, <https://www.ohchr.org/sites/default/files/documents/hrbodies/hrcouncil/sessions-regular/session52/A-HRC-52-26-AdvanceEditedVersion.pdf>.

¹² Reconstituted Joint Monitoring and Evaluation Commission (RJMEC), RJMEC report on the status of implementation of the revitalised agreement on the resolution of the conflict in the Republic of South Sudan for the Period 1st April to 30th June 2023, Chapter 2(a), July 2023, <https://reliefweb.int/report/south-sudan/rjmec-report-status-implementation-revitalised-agreement-resolution-conflict-republic-south-sudan-period-1st-april-30th-june-2023>.

¹³ Small Arms Survey, Upper Nile Prepares to Return to War, Mar. 2023, <https://www.smallarmsurvey.org/resource/upper-nile-prepares-return-war>.

¹⁴ U.S. Dep't. of State, 2022 Country Reports on Human Rights: South Sudan, pg. 15, Mar. 20, 2023, https://www.state.gov/wp-content/uploads/2023/03/415610_SOUTH-SUDAN-2022-HUMAN-RIGHTS-REPORT.pdf.

¹⁵ *Id.* at 16.

¹⁶ U.N. Human Rights Council, Report of the Commission on Human Rights in South Sudan, pg. 4, U.N. Doc. A/HRC/52/26, Jan. 31, 2023, <https://www.ohchr.org/sites/default/files/documents/hrbodies/hrcouncil/sessions-regular/session52/A-HRC-52-26-AdvanceEditedVersion.pdf>.

¹⁷ U.S. Dep't. of State, 2022 Country Reports on Human Rights: South Sudan, pg. 5, Mar. 20, 2023, https://www.state.gov/wp-content/uploads/2023/03/415610_SOUTH-SUDAN-2022-HUMAN-RIGHTS-REPORT.pdf.

⁸ Human Rights Watch, South Sudan: Events of 2022, <https://www.hrw.org/world-report/2023/country-chapters/south-sudan> (last visited Aug. 22, 2023).

⁹ Kiir leads the ruling Sudan People's Liberation Movement (SPLM). Machar is associated with the Sudan People's Liberation Movement—In Opposition (SPLM–IO) but contends that he has not formally left the SPLM. VOA News, Infighting Brings New Split in South Sudan's Ruling Party, Oct. 28, 2022, <https://www.voanews.com/a/infighting-brings-new-split-in-south-sudan-s-ruling-party/6809882.html> (last visited May 19, 2023).

¹⁰ International Crisis Group, South Sudan's Splintered Opposition: Preventing More Conflict, <https://www.crisisgroup.org/africa/horn-of-africa/south-sudan/south-sudan-splintered-opposition-preventing-more-conflict> (last visited May 19, 2023).

¹¹ U.N. Human Rights Council, Report of the Commission on Human Rights in South Sudan, pg.

are widespread, with the number of people impacted across South Sudan estimated to exceed one million.²⁵ Floods have destroyed crops, homes, schools, health care centers, and boreholes for water access, and efforts to provide relief have been stymied by violence, inaccessibility, and gaps in resources and infrastructure.²⁶

South Sudan is also contending with multiple disease outbreaks. Flood-affected areas have seen the spread of malaria, diarrhea, pneumonia, and skin infections, and the lack of clean water and sanitation suggests that outbreaks of cholera and Hepatitis E are likely to persist.²⁷ There also have been confirmed outbreaks of measles.²⁸ Dozens of health facilities were damaged or relocated due to flooding, furthering restricting access to care.²⁹

Food Insecurity

Approximately 7.8 million South Sudanese were projected to face “Crisis” levels of acute food insecurity, or worse, between April and July 2023.³⁰ Within this population, 2.9 million people were projected to face “Emergency” levels of acute food security, and around 43,000 were expected to face “Catastrophe.”³¹ Disruption in the agricultural sector has led to a dramatic increase in food prices, thereby exacerbating food insecurity and intensifying poverty.³² Access to

food is also sometimes used as a weapon of war.³³

Barriers to Humanitarian Access

An estimated 9.4 million of South Sudan's total population of more than 12 million people is in need of humanitarian assistance.³⁴ Multiple factors complicate the provision of relief. Armed groups restrict the safe and effective delivery of assistance, in some cases even harassing or killing aid workers, engaging in looting, and destroying humanitarian assets and facilities.³⁵ Bureaucratic obstacles and interference further undermine access.³⁶ Additionally, flooding has prevented physical access to some locations.³⁷

Based upon this review and after consultation with appropriate U.S. Government agencies, the Secretary has determined that:

- The conditions supporting South Sudan's designation for TPS continue to be met. *See* INA sec. 244(b)(3)(A) and (C), 8 U.S.C. 1254a(b)(3)(A) and (C).
- There continues to be an ongoing armed conflict in South Sudan and, due to such conflict, requiring the return to South Sudan of South Sudanese nationals (or individuals having no nationality who last habitually resided in South Sudan) would pose a serious threat to their personal safety. *See* INA sec. 244(b)(1)(A), 8 U.S.C. 1254a(b)(1)(A).
- There continue to be extraordinary and temporary conditions in South Sudan that prevent South Sudanese nationals (or individuals having no nationality who last habitually resided in South Sudan) from returning in safety, and it is not contrary to the national interest of the United States to permit South Sudanese TPS beneficiaries to remain in the United States temporarily. *See* INA sec. 244(b)(1)(C), 8 U.S.C. 1254a(b)(1)(C).

- The designation of South Sudan for TPS should be extended for an 18-month period, beginning on November 4, 2023, and ending on May 3, 2025. *See* INA sec. 244(b)(3)(C), 8 U.S.C. 1254a(b)(3)(C).

- Due to the conditions described above, South Sudan should be simultaneously extended and redesignated for TPS beginning on November 4, 2023 and ending on May 3, 2025. *See* INA sec. 244(b)(1)(A), (C), and (b)(2), 8 U.S.C. 1254a(b)(1)(A), (C), and (b)(2).

- For the redesignation, the Secretary has determined that TPS applicants must demonstrate that they have continuously resided in the United States since September 4, 2023.

- Initial TPS applicants under the redesignation must demonstrate that they have been continuously physically present in the United States since November 4, 2023, the effective date of the redesignation of South Sudan for TPS.

- There are approximately 133 current South Sudan TPS beneficiaries who are eligible to re-register for TPS under the extension.

- It is estimated that approximately 140 additional individuals may be eligible for TPS under the redesignation of South Sudan. This population includes South Sudanese nationals in the United States in nonimmigrant status or without immigration status.

Notice of the Designation of South Sudan for TPS

By the authority vested in me as Secretary under INA section 244, 8 U.S.C. 1254a, I have determined, after consultation with the appropriate U.S. Government agencies, the statutory conditions supporting South Sudan's designation for TPS on the basis of ongoing armed conflict and extraordinary and temporary conditions are met and it is not contrary to the national interest of the United States to permit South Sudanese TPS beneficiaries to remain in the United States temporarily. *See* INA sec. 244(b)(1)(A), 8 U.S.C. 1254a(b)(1)(A) and INA sec. 244(b)(1)(C), 8 U.S.C. 1254a(b)(1)(C). On the basis of this determination, I am simultaneously extending the existing designation of South Sudan for TPS for 18 months, beginning on November 4, 2023, and ending on May 3, 2025, and redesignating South Sudan for TPS for the same 18-month period. *See* INA sec. 244(b)(1)(A), (b)(1)(C) and (b)(2); 8

humanitarian-needs-overview-2023-november-2022 (last visited May 19, 2023).

²⁵ UNOCHA, South Sudan: Flooding Situation Report No. 1, pg. 1, Oct. 12, 2022, <https://reliefweb.int/report/south-sudan/south-sudan-flooding-situation-report-no-1-31-october-2022> (last visited May 19, 2023).

²⁶ *Id.*

²⁷ UNOCHA, South Sudan Humanitarian Needs Overview 2023, pg. 19, Nov. 22, 2022, <https://reliefweb.int/report/south-sudan/south-sudan-humanitarian-needs-overview-2023-november-2022>, (last visited May 19, 2023).

²⁸ *Id.* at 20.

²⁹ *Id.* at 21.

³⁰ U.S. Agency for International Development (USAID), South Sudan—Complex Emergency Fact Sheet #3. Fiscal Year 2023, pg. 2, Mar. 31, 2023, <https://reliefweb.int/report/south-sudan/south-sudan-complex-emergency-fact-sheet-3-fiscal-year-fy-2023> (last visited May 19, 2023). The “Crisis” level of food security is the third level on the five level Integrated Food Security Phase Classification (IPC) scale, which ranges from “Minimal” (IPC 1) to “Famine” or “Catastrophe” (IPC 5).

³¹ USAID, South Sudan—Complex Emergency Fact Sheet #3. Fiscal Year 2023, pg. 2, Mar. 31, 2023, <https://reliefweb.int/report/south-sudan/south-sudan-complex-emergency-fact-sheet-3-fiscal-year-fy-2023> (last visited May 19, 2023).

³² UNOCHA, South Sudan Humanitarian Needs Overview 2023, pg. 14, Nov. 22, 2022, <https://reliefweb.int/report/south-sudan/south-sudan-humanitarian-needs-overview-2023-november-2022>, (last visited May 19, 2023).

³³ U.S. Dep't. of State, 2022 Country Reports on Human Rights: South Sudan, pg. 2 (Mar. 20, 2023) https://www.state.gov/wp-content/uploads/2023/03/415610_SOUTH-SUDAN-2022-HUMAN-RIGHTS-REPORT.pdf.

³⁴ USAID, South Sudan—Complex Emergency Fact Sheet #3. Fiscal Year 2023, pg. 1, Mar. 31, 2023, <https://reliefweb.int/report/south-sudan/south-sudan-complex-emergency-fact-sheet-3-fiscal-year-fy-2023> (last visited May 19, 2023).

³⁵ U.S. Dep't. of State, 2022 Country Reports on Human Rights: South Sudan, pg. 18, Mar. 20, 2023, https://www.state.gov/wp-content/uploads/2023/03/415610_SOUTH-SUDAN-2022-HUMAN-RIGHTS-REPORT.pdf.

³⁶ UNOCHA, South Sudan Humanitarian Needs Overview 2023, pg. 75, Nov. 22, 2022, <https://reliefweb.int/report/south-sudan/south-sudan-humanitarian-needs-overview-2023-november-2022> (last visited May 19, 2023).

³⁷ UNICEF, South Sudan Humanitarian Situation No. 2.1, pg. 2, Feb. 28, 2023, <https://reliefweb.int/report/south-sudan/unicef-south-sudan-humanitarian-situation-report-no-2-1-28-february-2023> (last visited May 19, 2023).

U.S.C. 1254a(b)(1)(A), (b)(1)(C), and (b)(2).

Alejandro N. Mayorkas, Vienna

Secretary, U.S. Department of Homeland Security.

Eligibility and Employment Authorization for TPS Required Application Forms and Application Fees to Register or Re-Register for TPS

To register for TPS based on the designation of South Sudan, you must submit a Form I-821, Application for Temporary Protected Status, and pay the filing fee (or request a fee waiver, which you may submit on Form I-912, Request for Fee Waiver). You may be required to pay the biometric services fee. If you can demonstrate an inability to pay the biometric services fee, you may request to have the fee waived. Please see additional information under the “Biometric Services Fee” section of this notice.

TPS beneficiaries are eligible for an Employment Authorization Document (EAD), which proves their authorization to work in the United States. You are not required to submit Form I-765, Application for Employment Authorization, or have an EAD to be granted TPS, but see below for more information if you want an EAD to use as proof that you can work in the United States.

Individuals who have a South Sudan TPS application (Form I-821) that was still pending as of September 6, 2023 do not need to file the application again. If USCIS approves an individual's Form I-821, USCIS will grant the individual TPS through May 3, 2025.

For more information on the application forms and fees for TPS, please visit the USCIS TPS web page at <https://www.uscis.gov/tps>. Fees for the Form I-821, the Form I-765, and biometric services are also described in 8 CFR 103.7(b)(1) (Oct. 1, 2020). In addition, the form instructions for the Form I-821 and Form I-765 provide further information on requirements and fees for both initial TPS applicants and existing TPS beneficiaries who are re-registering.

How can TPS beneficiaries obtain an Employment Authorization Document (EAD)?

Everyone must provide their employer with documentation showing that they have the legal right to work in the United States. TPS beneficiaries are eligible to obtain an EAD, which proves their legal right to work. Those who want to obtain an EAD must file a Form I-765 and pay the Form I-765 fee (or request a fee waiver, which you may

submit on Form I-912, Request for Fee Waiver). TPS applicants may file this form along with their TPS application, or at a later date, provided their TPS application is still pending or has been approved. Beneficiaries with a South Sudanese TPS-related Form I-765 that was still pending as of September 6, 2023 do not need to file the application again. If USCIS approves a pending TPS-related Form I-765, USCIS will issue the individual a new EAD that will be valid through May 3, 2025.

Refiling an Initial TPS Registration Application After Receiving a Denial of a Fee Waiver Request

If USCIS denies your fee waiver request, you can resubmit your TPS application. The fee waiver denial notice will contain specific instructions about resubmitting your application.

Filing Information

USCIS offers the option to applicants for TPS under South Sudan's designation to file Form I-821 and related requests for EADs online or by mail. However, if you request a fee waiver, you must submit your application by mail. When filing a TPS application, applicants can also request an EAD by submitting a completed Form I-765, with their Form I-821.

Online filing: Forms I-821 and I-765 are available for concurrent filing online.³⁸ To file these forms online, you must first create a USCIS online account.³⁹

Mail filing: Mail your application for TPS to the proper address in Table 1.

Table 1—Mailing Addresses

Mail your completed Form I-821, Application for Temporary Protected Status; Form I-765, Application for Employment Authorization, if applicable; Form I-912, Request for Fee Waiver (if applicable); and supporting documentation to the proper address in Table 1.

TABLE 1—MAILING ADDRESSES

All states	Mail your application to:
U.S. Postal Service USPS:	USCIS, Attn: TPS South Sudan, P.O. Box 6943, Chicago, IL 60680–6943.

³⁸ Find information about online filing at “Forms Available to File Online,” <https://www.uscis.gov/file-online/forms-available-to-file-online>.

³⁹ https://myaccount.uscis.gov/users/sign_up.

TABLE 1—MAILING ADDRESSES—
Continued

All states	Mail your application to:
FedEx, UPS, and DHL deliveries:	USCIS, Attn: TPS South Sudan (Box 6943), 131 S Dear- born 3rd Floor, Chi- cago, IL 60603– 5517.

If you were granted TPS by an immigration judge (IJ) or the Board of Immigration Appeals (BIA) and you wish to request an EAD, please file online or mail your Form I-765 application to the appropriate mailing address in Table 1. If filing online, please include the fee. If filing by mail, please include the fee or fee waiver request. When you are requesting an EAD based on an IJ/BIA grant of TPS, please include a copy of the IJ or BIA order granting you TPS with your application. This will help us verify your grant of TPS and process your application.

Supporting Documents

The filing instructions on the Form I-821 list all the documents needed to establish eligibility for TPS. You may also find information on the acceptable documentation and other requirements for applying (*i.e.*, registering) for TPS on the USCIS website at <https://www.uscis.gov/tps> under “South Sudan.”

Travel

TPS beneficiaries may also apply for and be granted travel authorization as a matter of discretion. You must file for travel authorization if you wish to travel outside of the United States. If granted, travel authorization gives you permission to leave the United States and return during a specific period. To request travel authorization, you must file Form I-131, Application for Travel Document, available at <https://www.uscis.gov/i-131>. You may file Form I-131 together with your Form I-821 or separately. When filing Form I-131, you must:

- Select Item Number 1.d. in Part 2 on the Form I-131; and
- Submit the fee for Form I-131, or request a fee waiver, which you may submit on Form I-912, Request for Fee Waiver.

If you are filing Form I-131 together with Form I-821, send your forms to the address listed in Table 1. If you are filing Form I-131 separately based on a pending or approved Form I-821, send your form to the address listed in Table

2 and include a copy of Form I-797 for the approved or pending Form I-821.

TABLE 2—MAILING ADDRESSES

If you are . . .	Mail to . . .
Filing Form I-131 together with a Form I-821, Application for Temporary Protected Status.	The address provided in Table 1.
Filing Form I-131 based on a pending or approved Form I-821, and you are using the U.S. Postal Service (USPS): You must include a copy of the receipt notice (Form I-797 or I-797C) showing we accepted or approved your Form I-821.	USCIS, Attn: I-131 TPS, P.O. Box 660167, Dallas, TX 75266–0867.
Filing Form I-131 based on a pending or approved Form I-821, and you are using FedEx, UPS, or DHL: You must include a copy of the receipt notice (Form I-797 or I-797C) showing we accepted or approved your Form I-821.	USCIS, Attn: I-131 TPS, 2501 S State Hwy. 121 Business, Ste. 400, Lewisville, TX 75067.

Biometric Services Fee for TPS

Biometrics (such as fingerprints) are required for all applicants 14 years of age and older. Those applicants must submit a biometric services fee. As previously stated, if you are unable to pay the biometric services fee, you may request a fee waiver, which you may submit on Form I-912, Request for Fee Waiver. For more information on the application forms and fees for TPS, please visit the USCIS TPS web page at <https://www.uscis.gov/tps>. If necessary, you may be required to visit an Application Support Center to have your biometrics captured. For additional information on the USCIS biometric screening process, please see the USCIS Customer Profile Management Service Privacy Impact Assessment, available at <https://www.dhs.gov/publication/dhsuscispia-060-customer-profile-management-service-cpms>.

General Employment-Related Information for TPS Applicants and Their Employers

How can I obtain information on the status of my TPS application and EAD request?

To get case status information about your TPS application, as well as the status of your TPS-based EAD request, you can check Case Status Online at uscis.gov, or visit the USCIS Contact Center at <https://www.uscis.gov/contactcenter>. If your Form I-765 has been pending for more than 90 days, and you still need assistance, you may ask a question about your case online at <https://egov.uscis.gov/e-request/Intro.do> or call the USCIS Contact Center at 800-375-5283 (TTY 800-767-1833).

Am I eligible to receive an automatic extension of my current EAD through November 3, 2024, through this Federal Register notice?

Yes. Regardless of your country of birth, provided that you currently have

a South Sudan TPS-based EAD that has the notation A-12 or C-19 under Category and a “Card Expires” date of November 3, 2023, this **Federal Register** notice automatically extends your EAD through November 3, 2024. Although this **Federal Register** notice automatically extends your EAD through November 3, 2024, you must re-register timely for TPS in accordance with the procedures described in this **Federal Register** notice to maintain your TPS and employment authorization.

When hired, what documentation may I show to my employer as evidence of identity and employment authorization when completing Form I-9?

You can find the Lists of Acceptable Documents on Form I-9, Employment Eligibility Verification, as well as the Acceptable Documents web page at <https://www.uscis.gov/i-9-central/acceptable-documents>. Employers must complete Form I-9 to verify the identity and employment authorization of all new employees. Within three days of hire, employees must present acceptable documents to their employers as evidence of identity and employment authorization to satisfy Form I-9 requirements.

You may present any document from List A (which provides evidence of both identity and employment authorization) or one document from List B (which provides evidence of your identity) together with one document from List C (which provides evidence of employment authorization), or you may present an acceptable receipt as described in the Form I-9 Instructions. Employers may not reject a document based on a future expiration date. You can find additional information about Form I-9 on the I-9 Central web page at <https://www.uscis.gov/I-9Central>. An EAD is an acceptable document under List A. See the section “How do my employer and I complete Form I-9 using my automatically extended EAD for a

new job?” of this **Federal Register** notice for further information. If your EAD states A-12 or C-19 under Category and has a “Card Expires” date of November 3, 2023 it has been extended automatically by virtue of this **Federal Register** notice and you may choose to present your EAD to your employer as proof of identity and employment eligibility for Form I-9 through November 3, 2024, unless your TPS has been withdrawn or your request for TPS has been denied. Your country of birth notated on the EAD does not have to reflect the TPS designated country of South Sudan for you to be eligible for this extension.

What documentation may I present to my employer for Form I-9 if I am already employed but my current TPS-related EAD is set to expire?

Even though we have automatically extended your EAD, your employer is required by law to ask you about your continued employment authorization. Your employer may need to examine your automatically extended EAD to check the “Card Expires” date and Category code if your employer did not keep a copy of your EAD when you initially presented it. Once your employer has reviewed the Card Expiration date and Category code, your employer should update the EAD expiration date in Section 2 of Form I-9. See the section “What updates should my current employer make to Form I-9 if my EAD has been automatically extended?” of this **Federal Register** notice for further information. You may show this **Federal Register** notice to your employer to explain what to do for Form I-9 and to show that USCIS has automatically extended your EAD through November 3, 2024, but you are not required to do so. The last day of the automatic EAD extension is November 3, 2024. Before you start work on November 4, 2024, your employer is required by law to reverify your

employment authorization on Form I-9. By that time, you must present any document from List A or any document from List C on Form I-9 Lists of Acceptable Documents, or an acceptable List A or List C receipt described in the Form I-9 instructions to reverifi employment authorization.

Your employer may not specify which List A or List C document you must present and cannot reject an acceptable receipt.

If I have an EAD based on another immigration status, can I obtain a new TPS-based EAD?

Yes, if you are eligible for TPS, you can obtain a new TPS-based EAD, regardless of whether you have an EAD or work authorization based on another immigration status. If you want to obtain a new TPS-based EAD valid through May 3, 2025, then you must file Form I-765, Application for Employment Authorization, and pay the associated fee (unless USCIS grants your fee waiver request).

Can my employer require that I provide any other documentation such as evidence of my status, proof of my South Sudanese citizenship, or a Form I-797C showing that I registered for TPS for Form I-9 completion?

No. When completing Form I-9, employers must accept any documentation you choose to present from the Form I-9 Lists of Acceptable Documents that reasonably appears to be genuine and that relates to you, or an acceptable List A, List B, or List C receipt. Employers may not request proof of South Sudanese citizenship or proof of registration for TPS when completing Form I-9 for new hires or reverifying the employment authorization of current employees. If you present an EAD that USCIS has automatically extended, employers should accept it as a valid List A document so long as the EAD reasonably appears to be genuine and to relate to you. Refer to the “Note to Employees” section of this **Federal Register** notice for important information about your rights if your employer rejects lawful documentation, requires additional documentation, or otherwise discriminates against you based on your citizenship or immigration status, or your national origin.

How do my employer and I complete Form I-9 using my automatically extended EAD for a new job?

When using an automatically extended EAD to complete Form I-9 for a new job before November 4, 2024:

1. For Section 1, you should:
 - a. Check “A noncitizen authorized to work until” and enter November 3, 2024, as the “expiration date”; and
 - b. Enter your USCIS number or A-Number where indicated. (Your EAD or other document from DHS will have your USCIS number or A-Number printed on it; the USCIS number is the same as your A-Number without the A prefix.)
2. For Section 2, employers should:
 - a. Determine if the EAD is auto-extended by ensuring it is in category A-12 or C-19 and has a “Card Expires” date of November 3, 2023;
 - b. Write in the document title;
 - c. Enter the issuing authority;
 - d. Provide the document number; and
 - e. Write November 3, 2024, as the expiration date.

Before the start of work on November 4, 2024, employers must reverifi the employee’s employment authorization on Form I-9.

What updates should my current employer make to Form I-9 if my EAD has been automatically extended?

If you presented a TPS-related EAD that was valid when you first started your job and USCIS has now automatically extended your EAD, your employer may need to examine your current EAD if they do not have a copy of the EAD on file. Your employer should determine if your EAD is automatically extended by ensuring that it contains Category A-12 or C-19 and has a “Card Expires” date of November 3, 2023. Your employer may not rely on the country of birth listed on the card to determine whether you are eligible for this extension.

If your employer determines that USCIS has automatically extended your EAD, your employer should update Section 2 of your previously completed Form I-9 as follows:

1. Write EAD EXT and November 3, 2024, as the last day of the automatic extension in the Additional Information field; and
2. Initial and date the correction.

Note: This is not considered a reverification. Employers do not reverifi the employee until either the automatic extension has ended, or the employee presents a new document to show continued employment authorization, whichever is sooner. By November 4, 2024, when the employee’s automatically extended EAD has expired, employers are required by law to reverifi the employee’s employment authorization on Form I-9.

If I am an employer enrolled in E-Verify, how do I verify a new employee whose EAD has been automatically extended?

Employers may create a case in E-Verify for a new employee by entering the number from the Document Number field on Form I-9 into the document number field in E-Verify. Employers should enter November 3, 2024, as the expiration date for an EAD that has been extended under this **Federal Register** notice.

If I am an employer enrolled in E-Verify, what do I do when I receive a “Work Authorization Documents Expiring” alert for an automatically extended EAD?

E-Verify automated the verification process for TPS-related EADs that are automatically extended. If you have employees who provided a TPS-related EAD when they first started working for you, you will receive a “Work Authorization Documents Expiring” case alert when the auto-extension period for this EAD is about to expire. Before this employee starts work on November 4, 2024, you must reverifi their employment authorization on Form I-9. Employers may not use E-Verify for reverification.

Note to All Employers

Employers are reminded that the laws requiring proper employment eligibility verification and prohibiting unfair immigration-related employment practices remain in full force. This **Federal Register** notice does not supersede or in any way limit applicable employment verification rules and policy guidance, including those rules setting forth reverification requirements. For general questions about the employment eligibility verification process, employers may call USCIS at 888-464-4218 (TTY 877-875-6028) or email USCIS at I-9Central@uscis.dhs.gov. USCIS accepts calls and emails in English and many other languages. For questions about avoiding discrimination during the employment eligibility verification process (Form I-9 and E-Verify), employers may call the U.S. Department of Justice, Civil Rights Division, Immigrant and Employee Rights Section (IER) Employer Hotline at 800-255-8155 (TTY 800-237-2515). IER offers language interpretation in numerous languages. Employers may also email IER at IER@usdoj.gov or get more information online at www.justice.gov/ier.

Note to Employees

For general questions about the employment eligibility verification process, employees may call USCIS at

888-897-7781 (TTY 877-875-6028) or email USCIS at I-9Central@uscis.dhs.gov. USCIS accepts calls in English, Spanish and many other languages. Employees or job applicants may also call the U.S. Department of Justice, Civil Rights Division, Immigrant and Employee Rights Section (IER) Worker Hotline at 800-255-7688 (TTY 800-237-2515) for information regarding employment discrimination based on citizenship, immigration status, or national origin, including discrimination related to Form I-9 and E-Verify. The IER Worker Hotline provides language interpretation in numerous languages.

To comply with the law, employers must accept any document or combination of documents from the Lists of Acceptable Documents if the documentation reasonably appears to be genuine and to relate to the employee, or an acceptable List A, List B, or List C receipt as described in the Form I-9 Instructions. Employers may not require extra or additional documentation beyond what is required for Form I-9 completion. Further, employers participating in E-Verify who receive an E-Verify case result of "Tentative Nonconfirmation" (mismatch) must promptly inform employees of the mismatch and give such employees an opportunity to take action to resolve the mismatch. A mismatch means that the information entered into E-Verify from Form I-9 differs from records available to DHS.

Employers may not terminate, suspend, delay training, withhold or lower pay, or take any adverse action against an employee because of a mismatch while the case is still pending with E-Verify. A Final Nonconfirmation (FNC) case result is received when E-Verify cannot confirm an employee's employment eligibility. An employer may terminate employment based on a case result of FNC. Work-authorized employees who receive an FNC may call USCIS for assistance at 888-897-7781 (TTY 877-875-6028). For more information about E-Verify-related discrimination or to report an employer for discrimination in the E-Verify process based on citizenship, immigration status, or national origin, contact IER's Worker Hotline at 800-255-7688 (TTY 800-237-2515). Additional information about proper nondiscriminatory Form I-9 and E-Verify procedures is available on the IER website at <https://www.justice.gov/ier> and the USCIS and E-Verify websites at <https://www.uscis.gov/i-9-central> and <https://www.e-verify.gov>.

Note Regarding Federal, State, and Local Government Agencies (Such as Departments of Motor Vehicles)

For Federal purposes, if you present an automatically extended EAD referenced in this **Federal Register** notice, you do not need to show any other document, such as a Form I-797C, Notice of Action reflecting receipt of a Form I-765 EAD renewal application or this **Federal Register** notice, to prove that you qualify for this extension. While Federal Government agencies must follow the guidelines laid out by the Federal Government, State and local government agencies establish their own rules and guidelines when granting certain benefits. Each state may have different laws, requirements, and determinations about what documents you need to provide to prove eligibility for certain benefits. Whether you are applying for a Federal, State, or local government benefit, you may need to provide the government agency with documents that show you are a TPS beneficiary, show you are authorized to work based on TPS or other status, or that may be used by DHS to determine if you have TPS or another immigration status. Examples of such documents are:

- Your current EAD with a TPS category code of A-12 or C-19, even if your country of birth noted on the EAD does not reflect the TPS designated country of South Sudan;
- Your Form I-94, Arrival/Departure Record;
- Your Form I-797, Notice of Action, reflecting approval of your Form I-765; or
- Form I-797 or Form I-797C, Notice of Action, reflecting approval or receipt of a past or current Form I-821, if you received one from USCIS.

Check with the government agency requesting documentation regarding which document(s) the agency will accept. Some state and local government agencies use the SAVE program to confirm the current immigration status of applicants for public benefits.

While SAVE can verify that an individual has TPS, each agency's procedures govern whether they will accept an unexpired EAD, Form I-797, Form I-797C, or Form I-94, Arrival/Departure Record. If an agency accepts the type of TPS-related document you present, such as an EAD, the agency should accept your automatically extended EAD, regardless of the country of birth listed on the EAD. It may assist the agency if you:

- a. Give the agency a copy of the relevant **Federal Register** notice showing the extension of TPS-related documentation in addition to your

recent TPS-related document with your A-number, USCIS number, or Form I-94 number;

- b. Explain that SAVE will be able to verify the continuation of your TPS using this information; and

- c. Ask the agency to initiate a SAVE query with your information and follow through with additional verification steps, if necessary, to get a final SAVE response verifying your TPS.

You can also ask the agency to look for SAVE notices or contact SAVE if they have any questions about your immigration status or automatic extension of TPS-related documentation. In most cases, SAVE provides an automated electronic response to benefit-granting agencies within seconds, but occasionally verification can be delayed.

You can check the status of your SAVE verification by using CaseCheck at <https://save.uscis.gov/casecheck/>. CaseCheck is a free service that lets you follow the progress of your SAVE verification case using your date of birth and one immigration identifier number (such as A-number, USCIS number or Form I-94 number) or Verification Case Number. If an agency has denied your application based solely or in part on a SAVE response, the agency must offer you the opportunity to appeal the decision in accordance with the agency's procedures. If the agency has received and acted on or will act on a SAVE verification and you do not believe the SAVE response is correct, the SAVE website, <https://www.uscis.gov/save>, has detailed information on how to make corrections or update your immigration record, make an appointment, or submit a written request to correct records.

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DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

[Docket No. FR-6414-N-01]

Announcement of Tenant Protection Voucher Funding Awards for Fiscal Year 2022 for the Housing Choice Voucher Program

AGENCY: Office of the Assistant Secretary for Public and Indian Housing, HUD.

ACTION: Announcement of fiscal year 2022 awards.

SUMMARY: In accordance with the Department of Housing and Urban Development (HUD) Reform Act of 1989, this document notifies the public of Tenant Protection Voucher (TPV)

funding awards for fiscal year (FY) 2022 to public housing agencies (PHAs) under the Section 8 Housing Choice Voucher Program (HCVP). The purpose of this notice is to publish the names, addresses of awardees, and the amount of their non-competitive funding awards for assisting households affected by housing conversion actions, public housing relocations and replacements, and moderate rehabilitation replacements. This notice also includes a link to the TPV Dashboard Log for awards issued since FY 2020, which will provide project identification name and numbers to the reader. The log can be sorted by HUD Network, Region, Field Office, PHA code and name, and by categories of TPV under the offices of Multifamily or Public Housing.

FOR FURTHER INFORMATION CONTACT:

Danielle L. Bastarache, Deputy Assistant Secretary, Office of Public Housing and Voucher Programs, Office of Public and Indian Housing, Department of Housing and Urban Development, 451 Seventh Street SW, Room 4204, Washington, DC 20410-5000, telephone (202) 402-1380. HUD welcomes and is prepared to receive calls from individuals who are deaf or hard of hearing, as well as individuals with speech or communication disabilities. To learn more about how to make an accessible telephone call, please visit <https://www.fcc.gov/consumers/guides/telecommunications-relay-service-trs>.

SUPPLEMENTARY INFORMATION: The regulations governing the HCVP are published at 24 CFR part 982. The purpose of the rental assistance program is to assist eligible families to pay their rent for decent, safe, and sanitary housing in the private rental market. The FY 2022 awardees announced in this notice were provided HCVP TPV funds on an as-needed, non-competitive basis. TPV awards made to PHAs for

program actions that displace families living in public housing were made on a first-come, first-served basis in accordance with PIH Notice 2018-04, "Voucher Funding in Connection with the Demolition or Disposition of Occupied Public Housing Units," and PIH Notice 2021-10, "Implementation of the Federal Fiscal Year (FFY) 2021 Funding Provisions for the Housing Choice Voucher Program, and Availability of FFY 2020 Housing Assistance Payments (HAP) Set-Aside Funds for Second Round Per Unit Cost (PUC) Increases due to Unforeseen Circumstances."

By this notice, HUD also is making the public aware that TPV awards for the Rental Assistance Demonstration (RAD) were provided for certain projects under the Second Component of RAD consistent with PIH Notice H-2020-09 PIH-2020-23(HA), REV-4, "Rental Assistance Demonstration—Final Implementation, Revision 4."

Awards published under this notice were provided (1) to assist families living in HUD-owned properties that are being sold; (2) to assist families affected by the expiration or termination of their Project-based Section 8 and Moderate Rehabilitation contracts; (3) to assist families in properties where the owner has prepaid the HUD mortgage; (4) to assist families in projects where the Rental Supplement and Rental Assistance Payments contracts are expiring (RAD—Second Component); (5) to provide relocation housing assistance in connection with the demolition of public housing; (6) to provide replacement housing assistance for single room occupancy (SRO) units that fail housing quality standards (HQS); (7) to assist families in public housing developments that are scheduled for demolition in connection with a HUD-approved HOPE VI

revitalization or demolition grant, and (8) to assist families consistent with PIH Notice 2019-01, "Funding Availability for Set-Aside Tenant Protection Vouchers."

A special administrative fee of \$200 per occupied unit was provided to PHAs to compensate for any extraordinary HCVP administrative costs associated with the Multifamily Housing conversion actions. The Department awarded total new budget authority of \$132,870,875 to recipients under all the above-mentioned categories for 13,847 housing choice vouchers. Additional details related to TPV awards made since FY 2020, including project name and identification number, are available at the following TPV Dashboard link: Housing Voucher Financial Management Division (FMD) | [HUD.gov](https://www.hud.gov)/ U.S. Department of Housing and Urban Development (HUD).

In accordance with section 102(a)(4)(C) of the Department of Housing and Urban Development Reform Act of 1989 (103 Stat. 1987, 42 U.S.C. 3545), the Department is publishing the names, addresses of awardees, and their award amounts in Appendix A. The awardees are listed alphabetically by State for each type of TPV award.

Principal Deputy Assistant Secretary for Public and Indian Housing, Richard Monocchio, having reviewed and approved this document, is delegating the authority to electronically sign this document to submitter, Aaron Santa Anna, who is the **Federal Register** Liaison for HUD, for purposes of publication in the **Federal Register**.

Aaron Santa Anna,

Federal Register Liaison for the Department of Housing and Urban Development.

BILLING CODE 4210-67-P

Section 8 Rental Assistance Programs Announcement of Awards for Fiscal Year 2022

PHA #	Housing Agency	Address	Units	HAP Award	Fee Award
Public Housing Tenant Protection Actions					
		Choice Neighborhood Relocation		HAP	Not Applicable
NC012	NC: HA WINSTON-SALEM	500 WEST FOURTH STREET SUITE 300, WINSTON-SALEM, NC 27101	51	\$ 351,532	
		Total for Choice Neighborhood Relocation	51	351,532	
		Choice Neighborhood Replacement			
AZ001	AZ: CITY OF PHOENIX	NEIGHBORHOOD IMPROVEMENT HSG D 251 W. WASHINGTON ST., 4TH FL, PHOENIX, AZ 85003	68	\$ 407,181	
MA002	MA: BOSTON HOUSING AUTHORITY	52 CHAUNCEY STREET, BOSTON, MA 02111	24	\$ 454,628	
NC012	NC: HA WINSTON-SALEM	500 WEST FOURTH STREET SUITE 300, WINSTON-SALEM, NC 27101	11	\$ 75,821	
		Total for Choice Neighborhood Replacement	103	937,630	
		MTW Relocation/Replacement			
FL022	FL: HA NEW SMYRNA BEACH	P O BOX 688, NEW SMYRNA BEACH, FL 32170	34	\$ 128,539	
GA006	GA: HA ATLANTA GA	230 JOHN WESLEY DOBBS AVE. NE, ATLANTA, GA 30303	68	\$ 406,405	
WA001	WA: SEATTLE HOUSING AUTHORITY	120 SIXTH AVENUE NORTH PO BOX 19028, SEATTLE, WA 98109	147	\$ 615,798	
		Total for MTW Relocation/Replacement	249	1,150,742	
		Relocation-Sunset			
IN015	IN: SOUTH BEND HA	PO BOX 11057, SOUTH BEND, IN 46010	8	\$ 9,400	
KY901	KY: KENTUCKY HOUSING CORPORATION	1231 LOUISVILLE ROAD, FRANKFORT, KY 40601	40	\$ 88,344	
LA211	LA: TERREBONNE PARISH CONSOLIDATED GOVT	P O BOX 2768, HOUMA, LA 70361	265	\$ 1,838,899	
NJ010	NJ: HOUSING AUTHORITY OF THE CITY OF CAMDEN	2021 WATSON STREET, CAMDEN, NJ 08105	35	\$ 56,690	
		Total for Relocation-Sunset	348	1,993,333	
		Replacement			
AL002	AL: MOBILE HOUSING AUTHORITY	P O BOX 1345, MOBILE, AL 36633	104	\$ 184,379	
AR035	AR: SEARCY HOUSING AUTHORITY	501 SOUTH FIR STREET, SEARCY, AR 72143	28	\$ 105,091	
AR121	AR: PARAGOULD HOUSING AUTHORITY	612 E. CANAL STREET, PARAGOULD, AR 72450	62	\$ 279,380	
CA001	CA: SAN FRANCISCO HSG AUTH	1815 EGBERT AVE., SAN FRANCISCO, CA 94124	1,120	\$ 20,729,966	
CA003	CA: OAKLAND HOUSING AUTHORITY	1619 HARRISON ST, OAKLAND, CA 94612	20	\$ 80,586	
CA006	CA: CITY OF FRESNO HSG AUTH	1331 FULTON MALL, FRESNO, CA 93776	3	\$ 3,991	
CA048	CA: REGIONAL HOUSING AUTHORITY	1455 BUTTE HOUSE ROAD, YUBA CITY, CA 95593	171	\$ 481,536	
CA074	CA: H A. OF THE CITY OF LIVERMORE	3203 LEAHY WAY, LIVERMORE, CA 94550	125	\$ 799,426	
CO001	CO: HOUSING AUTHORITY OF THE CITY AND COUNTY OF DENVER	1035 OSAGE ST, DENVER, CO 80204		\$ 3,753,550	
CO041	CO: FORT COLLINS HSG AUTH	1715 W. MOUNTAIN AVE., FORT COLLINS, CO 80521	41	\$ 302,407	
CO058	CO: ADAMS COUNTY HOUSING AUTHORITY	3033 W. 71 AVE SUITE 1000, WESTMINSTER, CO 80030	42	\$ 536,149	
DE003	DE: NEWARK HOUSING AUTHORITY	313 E. MAIN STREET, NEWARK, DE 19711	2	\$ 7,382	
FL005	FL: MIAMI DADE HOUSING AUTHORITY	701 NW 1ST COURT, 16TH FLOOR, MIAMI, FL 33136	144	\$ 1,150,582	
FL007	FL: HA DAYTONA BEACH	211 NORTH RIDGEWOOD AVENUE SUITE 200, DAYTONA BEACH, FL 32114	97	\$ 816,488	
FL008	FL: SARASOTA HOUSING AUTHORITY	269 S OSPREY AVE SUITE 100, SARASOTA, FL 34236	126	\$ 1,276,392	
FL047	FL: HA OF THE CITY OF FORT MYERS	4224 RENAISSANCE PRESERVE WAY, FORT MYERS, FL 33916	196	\$ 712,195	
FL070	FL: HA ALACHUA COUNTY	703 NE 1ST STREET, GAINESVILLE, FL 32601	12	\$ 86,380	
IA045	IA: CITY OF DAVENPORT, IOWA	ATTN: DESTINY GERHARDT 501 WEST 3RD STREET, DAVENPORT, IA 52801	42	\$ 78,657	
ID016	ID: SOUTHWESTERN IDAHO COOPERATIVE HOUSING AUTHORITY	377 CORNELL STREET, MIDDLETON, ID 83644	67	\$ 483,485	
IL003	IL: PEORIA HOUSING AUTHORITY	100 SOUTH RICHARD PRYOR PLACE, PEORIA, IL 61605	4	\$ 27,984	
IL022	IL: ROCKFORD HOUSING AUTHORITY	223 SOUTH WINNEBAGO STREET, ROCKFORD, IL 61102	78	\$ 513,318	

Section 8 Rental Assistance Programs Announcement of Awards for Fiscal Year 2022				
PHA #	Housing Agency	Address	Units	HAP Award Fee Award
IL026	IL: WAUKEGAN HOUSING AUTHORITY	215 S. MARTIN LUTHER KING AVE, WAUKEGAN, IL 60085	38	\$ 272,383
IL030	IL: ST CLAIR COUNTY HA	1790 SOUTH 74TH STREET, BELLEVILLE, IL 62223	33	\$ 58,156
IL039	IL: KANKAKEE COUNTY HOUSING AUTHORITY	185 NORTH ST. JOSEPH AVENUE, KANKAKEE, IL 60901	28	\$ 96,116
IL053	IL: JACKSON COUNTY HOUSING AUTHORITY	P O BOX 1209 300 N 7TH STREET, MURPHYSBORO, IL 62966	2	\$ 8,928
IN012	IN: HAN NEW ALBANY	P O BOX 11, NEW ALBANY, IN 47150	114	\$ 346,160
IN015	IN: SOUTH BEND HA	PO BOX 11057, SOUTH BEND, IN 46010	40	\$ 82,247
IN022	IN: BLOOMINGTON HOUSING AUTHORITY	1007 N SUMMIT STREET, BLOOMINGTON, IN 47404	156	\$ 1,090,009
KS038	KS: SALINA HOUSING AUTHORITY	P O BOX 1202 469 S. 5TH STREET, SALINA, KS 67402	138	\$ 197,103
KY011	KY: IIOPEKINSVILLE HOUSING AUTHORITY	400 NORTH ELM STREET POST OFFICE BOX 437, IIOPEKINSVILLE, KY 42241	5	\$ 152,941
KY133	KY: COVINGTON HOUSING AUTHORITY	638 MADISON AVENUE FINANCE DEPT., FIRST FLOOR, COVINGTON, KY 41011	50	\$ 299,466
LA004	LA: LAKE CHARLES HOUSING AUTHORITY	P O BOX 1206, LAKE CHARLES, LA 70602	9	\$ 30,430
LA181	LA: ST JOHN THE BAPTIST PARISH HA	152 JOE PARQUET CIRCLE, LAPLACE, LA 70068	21	\$ 203,460
MA001	MA: LOWELL HOUSING AUTHORITY	350 MOODY STREET, LOWELL, MA 01853	6	\$ 59,881
MA002	MA: BOSTON HOUSING AUTHORITY	52 CHAUNCEY STREET, BOSTON, MA 02111	123	\$ 865,058
MA028	MA: FRAMINGHAM HOUSING AUTHORITY	1 JOHN J. BRADY DRIVE, FRAMINGHAM, MA 01702	59	\$ 904,916
MA033	MA: BROOKLINE HOUSING AUTHORITY	90 LONGWOOD AVE, BROOKLINE, MA 02146	110	\$ 836,190
MA040	MA: DEDHAM HSG AUTHORITY	163 DEDHAM BLVD, DEDHAM, MA 02026	24	\$ 573,756
MA093	MA: WATERTOWN HOUSING AUTHORITY	55 WAVERLEY AVENUE, WATERTOWN, MA 02172	50	\$ 1,089,114
MA098	MA: CONCORD HOUSING AUTHORITY	115 STOW STREET, CONCORD, MA 01742	18	\$ 421,762
MD001	MD: HOUSING AUTHORITY OF THE CITY OF ANNAPOLIS	1217 MADISON STREET, ANNAPOLIS, MD 21403	77	\$ 1,063,699
MD007	MD: HOUSING AUTHORITY OF THE CITY OF ROCKVILLE	621A SOUTHLAWN LANE, ROCKVILLE, MD 20850	29	\$ 426,011
ME003	ME: PORTLAND HSG AUTHORITY	14 BAXTER BOULEVARD, PORTLAND, ME 04101	6	\$ 35,393
ME020	ME: SOUTH PORTLAND HOUSING AUTHORITY	51 LANDRY CIRCLE, SOUTH PORTLAND, ME 04106	42	\$ 189,584
MI058	MI: LANSING HOUSING COMMISSION	419 CHERRY STREET, LANSING, MI 48933	115	\$ 1,460,076
MI080	MI: TRAVERSE CITY HSG. COMM	10200 EAST CARVER CENTRE, TRAVERSE CITY, MI 49684	92	\$ 345,988
MI119	MI: IRON COUNTY HSG. COMM	210 NORTH THIRD STREET, CRYSTAL FALLS, MI 49920	56	\$ 128,100
MI003	MI: DULUTH HRA	P O. BOX 16900, DULUTH, MN 55816	250	\$ 1,136,020
MI184	MI: SCOTT COUNTY CDA	323 SOUTH NAUMKEAG STREET, SHAKOPEE, MN 55379	40	\$ 394,623
MO058	MO: SPRINGFIELD HOUSING AUTHORITY	421 WEST MADISON ST, SPRINGFIELD, MO 65806	75	\$ 335,483
MT001	MT: HOUSING AUTHORITY OF BILLINGS	2415 1ST AVE NORTH, BILLINGS, MT 59101	58	\$ 409,832
NC167	NC: NORTH WESTERN REGIONAL HOUSING AUTHORITY	ADDISON EXE OFFICE BLDG, 869 HWY 105 EXT OR PO BOX 2510, BOONE, NC 28607	55	\$ 57,774
ND019	ND: TRAIL COUNTY HOUSING AUTHORITY	230 8TH AVENUE WEST, WEST FARGO, ND 58078	12	\$ 14,901
NE001	NE: OMAHA HOUSING AUTHORITY	1823 HARNEY STREET, OMAHA, NE 68102	35	\$ 288,695
NH012	NH: CLAREMONT HOUSING AUTHORITY	243 BROAD ST, CLAREMONT, NH 03743	96	\$ 472,819
NJ014	NJ: ATLANTIC CITY HOUSING AUTHORITY	227 VERMONT AVENUE POST OFFICE BOX 1258, ATLANTIC CITY, NJ 08404	31	\$ 284,256
NJ023	NJ: MORRISTOWN HOUSING AUTHORITY	31 EARLY STREET, MORRISTOWN, NJ 07960	108	\$ 1,179,878
NJ037	NJ: IRVINGTON HOUSING AUTHORITY	624 NYE AVENUE, IRVINGTON, NJ 07111	143	\$ 1,554,267
NJ048	NJ: NEPTUNE HOUSING AUTHORITY	1810 ALBERTA AVENUE, NEPTUNE, NJ 07753	16	\$ 81,083
NJ052	NJ: BOONTON HOUSING AUTHORITY	125 CHESTNUT STREET, BOONTON, NJ 07005	74	\$ 980,343
NY005	NY: NEW YORK CITY HOUSING AUTHORITY	90 CHURCH STREET, 9TH FLOOR LEASED HOUSING, NEW YORK, NY 10007	2,576	\$ 36,525,929
NY009	NY: ALBANY HOUSING AUTHORITY	200 SOUTH PEARL, ALBANY, NY 12202	132	\$ 1,015,580
NY019	NY: HA OF HERKIMER	315 N PROSPECT STREET, HERKIMER, NY 13350	88	\$ 355,048
NY020	NY: HA OF SARATOGA SPRINGS	ONE SOUTH FEDERAL STREET, SARATOGA SPRINGS, NY 12866	69	\$ 516,747
NY022	NY: HA OF COITIDES	ADMINISTRATIVE BUILDING 100 MAJOR SITES, COITIDES, NY 12047	57	\$ 79,582
NY028	NY: HA OF SCHENECTADY	375 BROADWAY, SCHENECTADY, NY 12305	150	\$ 982,839
NY034	NY: HA OF ROME	205 ST PETER'S AVE, ROME, NY 13440	59	\$ 268,282
NY054	NY: HA OF ITHACA	800 S PLAIN STREET, ITHACA, NY 14850	47	\$ 425,802
OH003	OH: CUYAHOGA MHA	8120 KINSMAN ROAD, CLEVELAND, OH 44104	172	\$ 1,286,224

Section 8 Rental Assistance Programs Announcement of Awards for Fiscal Year 2022

PHA #	Housing Agency	Address	Units	HAP Award	Fee Award
OK006	OK: BROKEN BOW HOUSING AUTHORITY	P.O. BOX 177 710 E THIRD STREET, BROKEN BOW, OK 74728	140	\$ 603,758	
OK078	OK: TULSA HOUSING AUTHORITY	P.O. BOX 6369, TULSA, OK 74148	250	\$ 1,019,111	
OK008	OK: HOUSING & URBAN RENEWAL AGENCY OF POLK COUNTY	PO BOX 467, DALLAS, OK 97358	4	\$ 52,843	
PA004	PA: ALLENTOWN HOUSING AUTHORITY	1339 ALLEN STREET, ALLENTOWN, PA 18102	41	\$ 360,164	
PA036	PA: LANCASTER HOUSING AUTHORITY	325 CHURCH STREET, LANCASTER, PA 17602	88	\$ 257,178	
PA083	PA: COLUMBIA COUNTY HOUSING AUTHORITY	700 SAW MILL ROAD, BLOOMSBURG, PA 17815	20	\$ 60,432	
TN001	TN: MEMPHIS HOUSING AUTHORITY	P.O. BOX 3664, MEMPHIS, TN 38103	91	\$ 658,487	
TN007	TN: HA JACKSON	P.O. BOX 3188, JACKSON, TN 38201	5	\$ 4,958	
TX128	TX: HOUSING AUTHORITY OF PLANO	1740 AVENUE G, PLANO, TX 75074	23	\$ 237,081	
TX330	TX: HSG AUTH CITY OF BRENHAM	P.O. BOX 623 1901 NORTHVIEW CIRCLE DRIVE, BRENHAM, TX 77833	78	\$ 106,029	
TX395	TX: PORT LAVACA HOUSING AUTHORITY	627 WEST GEORGE #174, PORT LAVACA, TX 77979	18	\$ 80,072	
TX455	TX: HOUSING AUTHORITY OF ODESSA	P.O. DRAWER 154 124 E. SECOND ST., ODESSA, TX 79761	59	\$ 151,501	
TX470	TX: HOUSING AUTHORITY OF SAN ANGELO	420 E. 28TH STREET, SAN ANGELO, TX 76903	171	\$ 380,633	
UT003	UT: HOUSING AUTHORITY OF THE COUNTY OF SALT LAKE	3592 S. MAIN STREET, SALT LAKE CITY, UT 84115	203	\$ 1,187,043	
UT020	UT: TOOELE COUNTY HOUSING AUTHORITY	118 EAST VINE STREET, TOOELE, UT 84074	22	\$ 140,364	
VA004	VA: ALEXANDRIA REDEVELOPMENT & H/A	401 WYTHE STREET, ALEXANDRIA, VA 22314	43	\$ 673,813	
VA007	VA: RICHMOND REDEVELOPMENT & H/A	901 CHAMBERLAYNE PARKWAY P.O. BOX 26887, RICHMOND, VA 23261	113	\$ 1,061,831	
VA020	VA: PETERSBURG REDEVELOPMENT & H/A	P.O. BOX 311 128 SO. SYCAMORE ST., PETERSBURG, VA 23803	50	\$ 377,695	
WI003	WI: MADISON CDA	OF THE CITY OF MADISON PO BOX 1785, MADISON, WI 53701	32	\$ 286,115	
WI043	WI: KAUKAUNA HA	125 WEST 10TH STREET, KAUKAUNA, WI 54130	30	\$ 234,432	
WI186	WI: BROWN COUNTY HA	100 N JEFFERSON STREET ROOM 608, GREEN BAY, WI 54301	48	\$ 314,882	
WI901	WI: WISCONSIN HOUSING & ECONOMIC	DEVELOPMENT AUTHORITY P.O. BOX 1728, MADISON, WI 53701	59	\$ 140,180	
Total for Replacement			9,876	\$ 100,660,840	
SRO Relocation/Replacement					
LA001	LA: NEW ORLEANS HOUSING AUTHORITY	4100 TOURCO STREET, NEW ORLEANS, LA 70122	68	\$ 274,366	
MI147	MI: DAKOTA COUNTY CDA	1228 TOWN CENTRE DRIVE, EAGAN, MN 55123	4	\$ 17,709	
NJ912	NJ: NEW JERSEY DEPARTMENT OF COMMUNITY AFFAIRS	101 SOUTH BROAD STREET POST OFFICE BOX 051, TRENTON, NJ 08625	4	\$ 46,407	
NY110	NY: THE CITY OF NEW YORK	DEPT OF HSG PRESERVATION & DEV 100 GOLD STREET ROOM 501, NEW YORK, NY 10038	100	\$ 1,358,688	
Total for Choice Neighborhood Relocation			176	\$ 1,697,070	
Modest Rehabilitation Program Relocations					
CA002	CA: LA COUNTY DEVELOPMENT AUTH	C.D.C. COUNTY OF LOS ANGELES 700 W. MAIN STREET, ALHAMBRA, CA 91801	6	\$ 99,648	
CA063	CA: SAN DIEGO HOUSING COMMISSION	1122 BROADWAY, SUITE 300, SAN DIEGO, CA 92101	17	\$ 205,642	
CA072	CA: SANTA CRUZ COUNTY HSG AUTH	2160 41ST AVE., CAPITOLA, CA 95010	12	\$ 145,494	
FL005	FL: MIAMI DADE HOUSING AUTHORITY	701 NW 1ST COURT, 16TH FLOOR, MIAMI, FL 33136	61	\$ 841,606	
LA087	LA: PUBLIC DEPT OF HUMAN RIGHTS	350 W. 6TH STREET - SUITE 312, DUBUQUE, IA 52001	3	\$ 20,621	
IL022	IL: ROCKFORD HOUSING AUTHORITY	223 SOUTH WINNEBAGO STREET, ROCKFORD, IL 61102	5	\$ 32,905	
MA901	MA: COMM DEV PROG COMM OF MA-E.O.C.D.	1 COLLEGE STREET, LEWISTON, ME 04214	16	\$ 228,371	
ME005	ME: LEWISTON HOUSING AUTHORITY	BOX 691, DEVILS LAKE, ND 58301	5	\$ 36,959	
ND013	ND: RAMSEY COUNTY HOUSING AUTHORITY	101 SOUTH BROAD STREET POST OFFICE BOX 051, TRENTON, NJ 08625	4	\$ 17,432	
NY912	NJ: NEW JERSEY DEPARTMENT OF COMMUNITY AFFAIRS	C/O BELMONT HOUSING RESOURCES 1195 MAIN STREET, BUFFALO, NY 14209	9	\$ 104,192	
NY091	NY: TOWN OF AMHERST	8120 KINSMAN ROAD, CLEVELAND, OH 44104	9	\$ 24,894	
OH003	OH: CUYAHOGA MHA	2832 STATE ROUTE 59, RAVENNA, OH 44266	9	\$ 44,868	
OH031	OH: PORTAGE MHA	50 LINCOLN PLAZA S. WILKES-BARRE BLVD., WILKES BARRE, PA 18702	21	\$ 150,761	
PA047	PA: WILKES BARRE HOUSING AUTHORITY	PO BOX 36-2138, SAN JUAN, PR 00936	6	\$ 44,936	
RQ006	RQ: MUNICIPALITY OF SAN JUAN	1917 HARDEN STREET, COLUMBIA, SC 29204	24	\$ 160,471	
SC002	SC: HA COLUMBIA	P.O. BOX 637, ELIZABETHTON, TN 37644	26	\$ 203,115	
TN076	TN: HSG DEV AGENCY ELIZABETHTON	ONE PROSPECT STREET, MONTELEONE, VT 05602	1	\$ 4,541	
VT901	VT: VERMONT STATE HOUSING AUTHORITY	PO BOX 2183 300 7TH AVENUE WEST, HUNTINGTON, WV 25722	8	\$ 66,503	
WV004	WV: HUNTINGTON WV HOUSING AUTHORITY	Total for Choice Neighborhood Relocation			
Total for Choice Neighborhood Relocation			254	\$ 2,469,494	
Witness Relocation Assistance					
MA002	MA: BOSTON HOUSING AUTHORITY	52 CHAUNCEY STREET, BOSTON, MA 02111	1	\$ 26,250	
MD034	MD: QUEEN ANNES COUNTY HSG AUTHORITY	PO BOX 280 205 EAST WATER STREET, CENTREVILLE, MD 21617	2	\$ 33,336	
NJ912	NJ: NEW JERSEY DEPARTMENT OF COMMUNITY AFFAIRS	101 SOUTH BROAD STREET POST OFFICE BOX 051, TRENTON, NJ 08625	3	\$ 56,446	
Total for Choice Neighborhood Relocation			6	\$ 116,032	
Total for Public Housing			11,063	\$ 109,376,673	

Section 8 Rental Assistance Programs Announcement of Awards for Fiscal Year 2022

PHA #	Housing Agency	Address	Units	HAP Award	Fee Award
Multifamily Housing Conversion Actions					
Certain At-Risk Households Low Vacancy					
CA063	CA: SAN DIEGO HOUSING COMMISSION	1122 BROADWAY, SUITE 300, SAN DIEGO, CA 92101	18	\$	209,611
CA068	CA: CITY OF LONG BEACH HSG AUTH	521 E. 4TH STREET, LONG BEACH, CA 90802	34	\$	498,429
DC001	DC: D.C. HOUSING AUTHORITY	1133 NORTH CAPITOL STREET NE, WASHINGTON, DC 20002	99	\$	965,553
FL009	FL: HA WEST PALM BEACH GENERAL FUND	3700 GEORGIA AVE, WEST PALM BEACH, FL 33405	105	\$	1,322,912
MA020	MA: QUINCY HOUSING AUTHORITY	80 CLAY STREET, QUINCY, MA 02170	10	\$	122,806
MI031	MI: MUSKOGEE HEIGHTS HSG. COMM.	615 EAST HOFFEY AVE, MUSKOGEE HEIGHTS, MI 49444	71	\$	265,479
MI036	MI: PERTH AMBOY HOUSING AUTHORITY	POST OFFICE BOX 390 881 AMBOY AVENUE, PERTH AMBOY, NJ 08862	154	\$	686,070
NJ012	NJ: NEW JERSEY DEPARTMENT OF COMMUNITY AFFAIRS	101 SOUTH BROAD STREET POST OFFICE BOX 051, TRENTON, NJ 08625	58	\$	272,484
NY002	NY: BUFFALO MUNICIPAL HOUSING AUTH.	300 PERRY STREET, BUFFALO, NY 14204	15	\$	38,915
NY904	NY: NYS HSG TRUST FUND CORPORATION	38-40 STATE STREET, ALBANY, NY 12207	172	\$	1,120,006
VA001	VA: VIRGINIA HOUSING DEVELOPMENT AUTHORITY	601 SOUTH BELVIDERE STREET, RICHMOND, VA 23220	9	\$	40,465
		Total For Certain At-Risk Households Low Vacancy	745	\$	5,542,730
Mod Rehab SRO - RAD					
CO002	CO: HSG AUTH OF PUEBLO	1414 NO. SANTA FE AVENUE, PUEBLO, CO 81003	52	\$	343,631
CO035	CO: HOUSING AUTHORITY OF CITY OF GREELEY	P. O. BOX 130, GREELEY, CO 80632	111	\$	1,073,073
CO911	CO: COLORADO DIVISION OF HOUSING	1313 SHERMAN STREET, KROOM 518, DENVER, CO 80203	100	\$	991,992
MA023	MA: LYNN HOUSING AUTHORITY	10 CHURCH STREET, LYNN, MA 01902	12	\$	97,421
OH004	OH: CINCINNATI METROPOLITAN HSG AUTH.	1645 WESTERN AVE, CINCINNATI, OH 45214	35	\$	164,436
UT002	UT: HA OF CITY OF OGDEN	1100 GRANT AVE, OGDEN, UT 84404	10	\$	69,438
UT004	UT: HOUSING AUTHORITY OF SALT LAKE CITY	1776 SW TEMPLE, SALT LAKE CITY, UT 84115	13	\$	51,640
VA003	VA: NEWPORT NEWS REDEVELOPMENT & HA	PO BOX 797, NEWPORT NEWS, VA 23607	88	\$	743,699
WA001	WA: SEATTLE HOUSING AUTHORITY	120 SIXTH AVENUE NORTH PO BOX 19028, SEATTLE, WA 98109	24	\$	241,292
		Total for Mod Rehab SRO - RAD	445	\$	3,776,512
Pre-payment Vouchers					
GA011	GA: HA OF THE CITY OF DECATUR	750 COMMERCE DRIVE SUITE 110, DECATUR, GA 30030		\$	46,740
IL002	IL: CHICAGO HOUSING AUTHORITY	60 EAST VAN BUREN ST 11TH FLOOR, CHICAGO, IL 60605	164	\$	3,709,872
MD002	MD: HOUSING AUTHORITY OF BALTIMORE CITY	417 EAST FAYETTE STREET, BALTIMORE, MD 21201	28	\$	303,317
MI091	MI: MICHIGAN STATE HSG. DEV. AUTH.	P.O. BOX 30914, LANSING, MI 48909	215	\$	1,195,776
NJ009	NJ: JERSEY CITY HOUSING AUTHORITY	400 US HIGHWAY #1, JERSEY CITY, NJ 07306	138	\$	1,814,463
NJ012	NJ: NEW JERSEY DEPARTMENT OF COMMUNITY AFFAIRS	101 SOUTH BROAD STREET POST OFFICE BOX 051, TRENTON, NJ 08625	90	\$	520,954
OH003	OH: CUYAHOGA MHA	8120 KINSMAN ROAD, CLEVELAND, OH 44104	44	\$	329,034
		Total for Pre-payment Vouchers	709	\$	7,920,156
Termination/Out-out Vouchers					
AL160	AL: HA TUSKEGEE	2901 DAVISON STREET, TUSKEGEE INSTITUTE, AL 36688	16	\$	100,792
AR002	AR: HSG AUTH OF THE CITY OF NORTH LITTLE ROCK	PO BOX 516, NORTH LITTLE ROCK, AR 72115	36	\$	219,974
AR010	AR: NORTHWEST REGIONAL HOUSING AUTHORITY	P.O. BOX 2568 114 SISCO AVENUE, HARRISON, AR 72602	31	\$	113,568
AR175	AR: BENTON PUBLIC HOUSING AUTHORITY	1200 WEST PINE STREET, BENTON, AR 72015	23	\$	45,288
CA004	CA: CITY OF LOS ANGELES HSG AUTH	2600 WILSHIRE BLVD., 3RD FLOOR, LOS ANGELES, CA 90057	14	\$	182,077
CA068	CA: CITY OF LONG BEACH HSG AUTH	521 E. 4TH STREET, LONG BEACH, CA 90802	7	\$	76,964
CO001	CO: HOUSING AUTHORITY OF THE CITY AND COUNTY OF DENVER	1035 OSAGE ST, DENVER, CO 80204	17	\$	181,544
CT006	CT: WATERBURY HOUSING AUTHORITY	2 LAKEWOOD ROAD, WATERBURY, CT 06704	45	\$	421,195
FL005	FL: MIAMI DADE HOUSING AUTHORITY	701 NW 1ST COURT, 16TH FLOOR, MIAMI, FL 33136	27	\$	339,011
FL071	FL: HA LAKE WALES	P.O. BOX 426 10 W. SESSOMS AVENUE, LAKE WALES, FL 33859	26	\$	258,698
GA010	GA: HA MARIETTA	P.O. DRAWER K 95 COLE STREET, MARIETTA, GA 30061	33	\$	198,697
GA001	GA: GEORGIA DEPT. OF COMMUNITY AFFAIRS, RENTAL ASSIST.	60 EXECUTIVE PARK SOUTH, NE SUITE 250, ATLANTA, GA 30329	12	\$	99,693
IA122	IA: REGIONAL HSG AUTH - VOUCHER XII	320 E. 7TH STREET P.O. BOX 663, CARROLL, IA 51401	19	\$	71,296
IL039	IL: KANKAKEE COUNTY HOUSING AUTHORITY	185 NORTH ST. JOSEPH AVENUE, KANKAKEE, IL 60901	9	\$	34,211
ME001	ME: MAINE STATE HSG AUTHORITY	353 WATER STREET, AUGUSTA, ME 04330	6	\$	29,505
MI073	MI: GRAND RAPIDS HSG. COMM.	1420 FULLER AVE SE, GRAND RAPIDS, MI 49507	9	\$	32,725
MN001	MN: ST PAUL PHA	555 NORTH WABASHA, SUITE 400, ST. PAUL, MN 55102	62	\$	616,486
MO206	MO: PHELPS COUNTY PHA	C/O MERAMEC REGIONAL PLANNING #4 INDUSTRIAL DRIVE, ST JAMES, MO 65559	16	\$	23,475
MT003	MT: BUTTE HOUSING AUTHORITY	220 CURTIS STREET, BUTTE, MT 59701	9	\$	47,160
ND012	ND: GRAND FORKS HOUSING AUTHORITY	1405 1ST AVENUE NORTH, GRAND FORKS, ND 58203	16	\$	66,649

Section 8 Rental Assistance Programs Announcement of Awards for Fiscal Year 2022					
PHA #	Housing Agency	Address	Units	HAP Award	Fee Award
Multifamily Housing Conversion Actions					
ND031	ND: STARK COUNTY HOUSING AUTHORITY	1149 WEST VILLARD PO BOX 107, DICKINSON, ND 58602	28	\$ 152,702	\$ 3,000
OR015	OR: HOUSING AUTHORITY OF JACKSON COUNTY	2231 TABLE ROCK ROAD, MEDFORD, OR 97501	8	\$ 53,130	\$ 1,600
PA002	PA: PHILADELPHIA HOUSING AUTHORITY	12 SOUTH 23RD STREET, PHILADELPHIA, PA 19103	70	\$ 309,582	\$ 13,800
SD034	SD: ABERDEEN HOUSING & REDEVELOPMENT COMMISSION	2324 3RD AVE SE, ABERDEEN, SD 57401	28	\$ 132,854	\$ 5,000
TX008	TX: CORPUS CHRISTI HOUSING AUTHORITY	3701 AYERS STREET, CORPUS CHRISTI, TX 78415	47	\$ 198,426	\$ 9,400
TX009	TX: HOUSING AUTHORITY OF DALLAS	3939 N. HAMPTON RD., DALLAS, TX 75212	82	\$ 683,184	\$ 15,000
TX458	TX: GRAYSON COUNTY HOUSING AUTHORITY	1708 W HOUSTON ST, SHERMAN, TX 75092	40	\$ 226,819	\$ 8,000
VA007	VA: RICHMOND REDEVELOPMENT & H/A	901 CHAMBERLAYNE PARKWAY P.O. BOX 26887, RICHMOND, VA 23261	18	\$ 169,141	\$ 3,600
VA901	VA: VIRGINIA HOUSING DEVELOPMENT AUTHORITY	601 SOUTH BELVIDERE STREET, RICHMOND, VA 23220	13	\$ 116,899	\$ 2,600
WA001	WA: SEATTLE HOUSING AUTHORITY	120 SIXTH AVENUE NORTH PO BOX 19028, SEATTLE, WA 98109	30	\$ 301,615	\$ 5,800
WA055	WA: SPOKANE HOUSING AUTHORITY	25 W NORA AVE, SPOKANE, WA 99205	66	\$ 121,534	\$ 13,200
WI213	WI: OSHKOSH/WINNEBAGO COUNTY HA	PO BOX 397, OSHKOSH, WI 54902	20	\$ 85,104	\$ 3,400
		Total for Termination/Opt-out Vouchers	883	\$ 5,709,998	\$ 168,200
Relocation 8(b)- Sunset					
PA001	PA: HOUSING AUTHORITY OF THE CITY OF PITTSBURGH	200 ROSS STREET ATTN: PATRICK BLACKWELL, PITTSBURGH, PA 15219	2	\$ 7,006	\$ 400
		Total for SRO-Relocation/Re-placement	2	\$ 7,006	\$ 400
Total for Multifamily Housing Conversion Actions			2,784	\$ 22,956,402	\$ 537,800
Grand Total TPY HAP and Fees			13,847	\$ 132,333,075	\$ 537,800

DEPARTMENT OF THE INTERIOR**Bureau of Reclamation**

[RR83550000, 234R5065C6,
RX.59389832.1009676]

**Quarterly Status Report of Water
Service, Repayment, and Other Water-
Related Contract Actions**

AGENCY: Bureau of Reclamation,
Interior.

ACTION: Notice of contract actions.

SUMMARY: Notice is hereby given of contractual actions that have been proposed to the Bureau of Reclamation (Reclamation) and are new, discontinued, or completed since the last publication of this notice. This notice is one of a variety of means used to inform the public about proposed contractual actions for capital recovery and management of project resources and facilities consistent with section 9(f) of the Reclamation Project Act of 1939. Additional announcements of individual contract actions may be published in the **Federal Register** and in newspapers of general circulation in the areas determined by Reclamation to be affected by the proposed action.

ADDRESSES: The identity of the approving officer and other information pertaining to a specific contract proposal may be obtained by calling or writing the appropriate regional office at the address and telephone number given for each region in the **SUPPLEMENTARY INFORMATION** section of this notice.

FOR FURTHER INFORMATION CONTACT: Michelle Kelly, Reclamation Law Administration Division, Bureau of Reclamation, P.O. Box 25007, Denver, Colorado 80225-0007; mkelly@usbr.gov; telephone 303-445-2888.

SUPPLEMENTARY INFORMATION: Consistent with section 9(f) of the Reclamation Project Act of 1939, and the rules and regulations published in 52 FR 11954, April 13, 1987 (43 CFR 426.22), Reclamation will publish notice of proposed or amendatory contract actions for any contract for the delivery of project water for authorized uses in newspapers of general circulation in the affected area at least 60 days prior to contract execution. Announcements may be in the form of news releases, legal notices, official letters, memorandums, or other forms of written material. Meetings, workshops, and/or hearings may also be used, as appropriate, to provide local publicity. The public participation procedures do not apply to proposed contracts for the sale of surplus or interim irrigation water for a term of 1 year or less. Either

of the contracting parties may invite the public to observe contract proceedings. All public participation procedures will be coordinated with those involved in complying with the National Environmental Policy Act. Pursuant to the "Final Revised Public Participation Procedures" for water resource-related contract negotiations, published in 47 FR 7763, February 22, 1982, a tabulation is provided of all proposed contractual actions in each of the five Reclamation regions. When contract negotiations are completed, and prior to execution, each proposed contract form must be approved by the Secretary of the Interior, or pursuant to delegated or redelegated authority, the Commissioner of Reclamation or one of the regional directors. In some instances, congressional review and approval of a report, water rate, or other terms and conditions of the contract may be involved.

Public participation in and receipt of comments on contract proposals will be facilitated by adherence to the following procedures:

1. Only persons authorized to act on behalf of the contracting entities may negotiate the terms and conditions of a specific contract proposal.
2. Advance notice of meetings or hearings will be furnished to those parties that have made a timely written request for such notice to the appropriate regional or project office of Reclamation.
3. Written correspondence regarding proposed contracts may be made available to the general public pursuant to the terms and procedures of the Freedom of Information Act, as amended.
4. Written comments on a proposed contract or contract action must be submitted to the appropriate regional officials at the locations and within the time limits set forth in the advance public notices.
5. All written comments received and testimony presented at any public hearings will be reviewed and summarized by the appropriate regional office for use by the contract approving authority.
6. Copies of specific proposed contracts may be obtained from the appropriate regional director or his or her designated public contact as they become available for review and comment.
7. In the event modifications are made in the form of a proposed contract, the appropriate regional director shall determine whether republication of the notice and/or extension of the comment period is necessary.

Factors considered in making such a determination shall include, but are not limited to, (i) the significance of the modification, and (ii) the degree of public interest which has been expressed over the course of the negotiations. At a minimum, the regional director will furnish revised contracts to all parties who requested the contract in response to the initial public notice.

Definitions of Abbreviations Used in the Reports

ARRA American Recovery and Reinvestment Act of 2009
BCP Boulder Canyon Project
Reclamation Bureau of Reclamation
CAP Central Arizona Project
CUP Central Utah Project
CVP Central Valley Project
CRSP Colorado River Storage Project
XM Extraordinary Maintenance
EXM Emergency Extraordinary Maintenance
FR Federal Register
IDD Irrigation and Drainage District
ID Irrigation District
M&I Municipal and Industrial
O&M Operation and Maintenance
OM&R Operation, Maintenance, and Replacement
P-SMBP Pick-Sloan Missouri Basin Program
RRA Reclamation Reform Act of 1982
SOD Safety of Dams
SRPA Small Reclamation Projects Act of 1956
USACE U.S. Army Corps of Engineers
WD Water District
WIIN Act Water Infrastructure Improvements for the Nation Act

MISSOURI BASIN—INTERIOR REGION 5: Bureau of Reclamation, P.O. Box 36900, Federal Building, 2021 4th Avenue North, Billings, Montana 59101, telephone 406-247-7752.

New contract action:

30. Greenfields ID, Sun River Project, Montana: Consideration for a preliminary lease of power privilege for Pishkun Inlet. Consideration for additional sites is ongoing.

Completed contract action:

28. PacifiCorps; Glendo Unit, P-SMBP; Wyoming: Consideration for a 5-year excess capacity contract. Contract executed on June 6, 2023.

UPPER COLORADO BASIN—INTERIOR REGION 7: Bureau of Reclamation, 125 South State Street, Room 8100, Salt Lake City, Utah 84138-1102, telephone 801-524-3864.

New contract actions:

40. Weber Basin Water Conservancy District, Weber Basin Project, Utah: Amendment to contract No. 22-WC-40-940 to increase repayment from approximately \$8M to \$23M.

41. The Jordanelle Special Service District; Bonneville Unit, CUP; Utah:

The District desires to enter into a Section 14 of the Reclamation Projects Act of 1939 contract for Reclamation to dedicate a water right in order for the Utah State Parks to receive water at the Rock Cliff Recreation Area for recreational purposes.

42. Los Ranchitos Estates, Florida Project, Colorado: Reclamation received a request for a long-term water service contract (25 years) to augment depletions from residential water uses within the subdivision. The proposed contract will be for 36 acre-feet of water annually.

43. Forrest Groves Estates, Florida Project, Colorado: Reclamation received a request for a long-term water service contract (25 years) to augment depletions from residential water uses within the subdivision. The proposed contract will be for 43 acre-feet of water annually.

44. Country Aire Estates, Florida Project, Colorado: Reclamation received a request for a long-term water service contract (25 years) to augment depletions from residential water uses within the subdivision. The proposed contract will be for 7 acre-feet of water annually.

LOWER COLORADO BASIN—
INTERIOR REGION 8: Bureau of Reclamation, P.O. Box 61470 (Nevada Highway and Park Street), Boulder City, Nevada 89006–1470, telephone 702–293–8192.

Completed contract actions:

16. GSC Farm, LLC, and the Town of Queen Creek, Arizona; BCP, Arizona: Enter into a proposed partial assignment and transfer of Arizona fourth-priority Colorado River water in the amount of 2,033.01 acre-feet per year from GSC to Queen Creek, amend GSC's Colorado River water delivery contract No. 13–XX–30–W0571 to decrease their Colorado River water entitlement from 2,913.3 to 69.93 acre-feet per year, enter into Colorado River water delivery contract No. 20–XX–30–W0689 with Queen Creek for 2,033.01 acre-feet per year of Arizona fourth-priority Colorado River water entitlement, and enter into a wheeling agreement between the United States and Queen Creek for the wheeling of non-project water to be transported through the CAP for the use or benefit of Queen Creek. Contracts executed on April 28, 2023.

19. Western Water, LLC and Cibola Valley IDD, BCP, Arizona: Approve an amendment of Western's contract service area under their contract No. 16–XX–30–W0619, as amended (Western Contract), to include the previously excluded parcels of land; namely, the eastern halves of Assessor Parcel Nos. 301–08–003C and 301–08–003D. The

inclusion of these lands within the Western Contract service area will make these lands eligible to receive Arizona fourth-priority Colorado River water from Western. Western has an Arizona fourth-priority Colorado River water entitlement under the Western Contract for an annual diversion of 536.48 acre-feet of Colorado River water for irrigation use within the Western Contract service area. Additionally, Reclamation will amend the District's contract service area under their contract to exclude Western lands. The exclusion of the Western lands from the District's contract service area will make the Western lands ineligible to receive Arizona fourth-, fifth-, and/or sixth-priority water from the District. The District's boundary will remain the same. Contracts executed on April 18, 2023.

COLUMBIA–PACIFIC
NORTHWEST—INTERIOR REGION 9: Bureau of Reclamation, 1150 North Curtis Road, Suite 100, Boise, Idaho 83706–1234, telephone 208–378–5344.

Modified contract action:

16. Storage Division, Yakima Project, Washington: Contracts with water user entities for the repayment of reimbursable shares of the costs of the SOD program modification for Kachess Dam.

CALIFORNIA–GREAT BASIN—
INTERIOR REGION 10: Bureau of Reclamation, 2800 Cottage Way, Sacramento, California 95825–1898, telephone 916–978–5250.

Completed contract action:

9. San Luis WD, CVP, California: Proposed partial assignment of 4,449 acre-feet of the District's CVP supply to Santa Nella County WD for M&I use. Contract executed on January 24, 2023.

Christopher Beardsley,

Director, Policy and Programs.

[FR Doc. 2023–19132 Filed 9–5–23; 8:45 am]

BILLING CODE 4332–90–P

DEPARTMENT OF JUSTICE

Drug Enforcement Administration

[Docket No. DEA–1176]

Bulk Manufacturer of Controlled Substances Application: SpecGx LLC; Correction

AGENCY: Drug Enforcement Administration, Justice.

ACTION: Notice; correction.

SUMMARY: The Drug Enforcement Administration (DEA) published a document in the **Federal Register** of April 4, 2023, concerning a notice of

application for bulk manufacturer of Controlled Substances. That document listed a drug code/controlled substance in error as it was not requested by the registrant (2270—Pentobarbital). Additionally, the document listed duplicates of 7 other drug codes in error (1100, 1105, 1205, 1724, 8333, 9780, 9801).

SUPPLEMENTARY INFORMATION:

Correction

In the **Federal Register** of April 4, 2023, in FR Doc. 2023–06952 (88 FR 19990), on page 19990, in columns 1 and 2, under the requested controlled substances/drug codes, it should read as such:

Controlled substance	Drug code	Schedule
Gamma Hydroxybutyric Acid.	2010	I
Tetrahydrocannabinols ...	7370	I
Psilocybin	7437	I
Codeine-N-oxide	9053	I
Noroxymorphone	9145	I
Difenoxin	9168	I
Morphine-N-oxide	9307	I
Normorphine	9313	I
Alphamethadol	9605	I
Betamethadol	9609	I
Norlevorphanol	9634	I
Acetyl Fentanyl (N-(1-phenethylpiperidin-4-yl)-N-phenylacetamide).	9821	I
Butyryl Fentanyl	9822	I
Fentanyl related-compounds as defined in 21 CFR 1308.11(h).	9850	I
Amphetamine	1100	II
Methamphetamine	1105	II
Lisdexamfetamine	1205	II
Methylphenidate	1724	II
Nabilone	7379	II
ANPP (4-Anilino-N-phenethyl-4-piperidine).	8333	II
Phenylacetone	8501	II
Codeine	9050	II
Dihydrocodeine	9120	II
Oxycodone	9143	II
Hydromorphone	9150	II
Diphenoxylate	9170	II
Ecgonine	9180	II
Hydrocodone	9193	II
Levorphanol	9220	II
Isomethadone	9226	II
Meperidine	9230	II
Meperidine intermediate-A.	9232	II
Meperidine intermediate-B.	9233	II
Meperidine intermediate-C.	9234	II
Methadone	9250	II
Methadone intermediate	9254	II
Dextropropoxyphene, bulk (non-dosage forms).	9273	II
Morphine	9300	II
Oripavine	9330	II
Thebaine	9333	II
Opium tincture	9630	II

Controlled substance	Drug code	Schedule
Opium, powdered	9639	II
Oxymorphone	9652	II
Noroxymorphone	9668	II
Alfentanil	9737	II
Remifentanil	9739	II
Sufentanil	9740	II
Tapentadol	9780	II
Fentanyl	9801	II

Claude Redd,

Acting Deputy Assistant Administrator.

[FR Doc. 2023–19179 Filed 9–5–23; 8:45 am]

BILLING CODE P

DEPARTMENT OF JUSTICE

Drug Enforcement Administration

[Docket No. DEA–1252]

Importer of Controlled Substances Application: Catalent Greenville, Inc.

AGENCY: Drug Enforcement Administration, Justice.

ACTION: Notice of application.

SUMMARY: Catalent Greenville, Inc. has applied to be registered as an importer of basic class(es) of controlled substance(s). Refer to **SUPPLEMENTARY INFORMATION** listed below for further drug information.

DATES: Registered bulk manufacturers of the affected basic class(es), and applicants therefore, may submit electronic comments on or objections to the issuance of the proposed registration on or before October 6, 2023. Such persons may also file a written request for a hearing on the application on or before October 6, 2023.

ADDRESSES: The Drug Enforcement Administration requires that all comments be submitted electronically through the Federal eRulemaking Portal, which provides the ability to type short comments directly into the comment field on the web page or attach a file for lengthier comments. Please go to <https://www.regulations.gov> and follow the online instructions at that site for submitting comments. Upon submission of your comment, you will receive a Comment Tracking Number. Please be aware that submitted comments are not instantaneously available for public view on <https://www.regulations.gov>. If you have received a Comment Tracking

Number, your comment has been successfully submitted and there is no need to resubmit the same comment. All requests for a hearing must be sent to: (1) Drug Enforcement Administration, Attn: Hearing Clerk/OALJ, 8701 Morrisette Drive, Springfield, Virginia 22152; and (2) Drug Enforcement Administration, Attn: DEA Federal Register Representative/DPW, 8701 Morrisette Drive, Springfield, Virginia 22152. All requests for a hearing should also be sent to: Drug Enforcement Administration, Attn: Administrator, 8701 Morrisette Drive, Springfield, Virginia 22152.

SUPPLEMENTARY INFORMATION: In accordance with 21 CFR 1301.34(a), this is notice that on August 10, 2023, Catalent Greenville, Inc., 1240 Sugg Parkway, Greenville, North Carolina 27834–9006, applied to be registered as an importer of the following basic class(es) of controlled substance(s):

Controlled substance	Drug code	Schedule
Lysergic Acid Diethylamide.	7315	I

The company plans to import the above listed controlled substance for internal research and to support customers research and clinical studies. No other activities for this drug codes are authorized for this registration.

Approval of permit applications will occur only when the registrant's business activity is consistent with what is authorized under 21 U.S.C. 952(a)(2). Authorization will not extend to the import of Food and Drug Administration-approved or non-approved finished dosage forms for commercial sale.

Claude Redd,

Acting Deputy Assistant Administrator.

[FR Doc. 2023–19180 Filed 9–5–23; 8:45 am]

BILLING CODE

DEPARTMENT OF JUSTICE

Drug Enforcement Administration

[Docket No. DEA–1257]

Importer of Controlled Substances Application: Lipomed

AGENCY: Drug Enforcement Administration, Justice.

ACTION: Notice of application.

SUMMARY: Lipomed has applied to be registered as an importer of basic class(es) of controlled substance(s). Refer to **SUPPLEMENTARY INFORMATION** listed below for further drug information.

DATES: Registered bulk manufacturers of the affected basic class(es), and applicants therefore, may submit electronic comments on or objections to the issuance of the proposed registration on or before October 6, 2023. Such persons may also file a written request for a hearing on the application on or before October 6, 2023.

ADDRESSES: The Drug Enforcement Administration requires that all comments be submitted electronically through the Federal eRulemaking Portal, which provides the ability to type short comments directly into the comment field on the web page or attach a file for lengthier comments. Please go to <https://www.regulations.gov> and follow the online instructions at that site for submitting comments. Upon submission of your comment, you will receive a Comment Tracking Number. Please be aware that submitted comments are not instantaneously available for public view on <https://www.regulations.gov>. If you have received a Comment Tracking Number, your comment has been successfully submitted and there is no need to resubmit the same comment. All requests for a hearing must be sent to: (1) Drug Enforcement Administration, Attn: Hearing Clerk/OALJ, 8701 Morrisette Drive, Springfield, Virginia 22152; and (2) Drug Enforcement Administration, Attn: DEA Federal Register Representative/DPW, 8701 Morrisette Drive, Springfield, Virginia 22152. All requests for a hearing should also be sent to: Drug Enforcement Administration, Attn: Administrator, 8701 Morrisette Drive, Springfield, Virginia 22152.

SUPPLEMENTARY INFORMATION: In accordance with 21 CFR 1301.34(a), this is notice that on July 28, 2023, Lipomed, 150 Cambridgepark Drive, Suite 705, Cambridge, Massachusetts 02140–2300, applied to be registered as an importer of the following basic class(es) of controlled substance(s):

Controlled substance	Drug code	Schedule
Etizolam (4-(2-chlorophenyl)-2-ethyl-9-methyl-6H-N thieno[3,2-f][1,2,4]triazolo[4,3-a][1,4]diazepine	2780	I
Flualprazolam (8-chloro-6-(2-fluorophenyl)-1-methyl-4H-benzo[f][1,2,4]triazolo[4,3-a][1,4]diazepine)	2785	I
Clonazolam (6-(2-chlorophenyl)-1-methyl-8-nitro-4H-benzo[f][1,2,4]triazolo[4,3-a][1,4]diazepine	2786	I
Flubromazolam (8-bromo-6-(2-fluorophenyl)-1-methyl-4H-benzo[f][1,2,4]triazolo[4,3-a][1,4]diazepine	2788	I

Controlled substance	Drug code	Schedule
Diclazepam (7-chloro-5-(2-chloro-5-(2-chlorophenyl)-1-methyl-1,3-dihydro-2H-benzo[e][1,4]diazepin-2-one	2789	I

The company plans to import the above listed controlled substances as analytical reference standards for distribution to its customers for research and analytics purposes. Placement of these drug codes onto the company's registration does not translate into automatic approval of subsequent permit applications to import controlled substances. No other activities for these drug codes are authorized for this registration.

Approval of permit applications will occur only when the registrant's business activity is consistent with what is authorized under 21 U.S.C. 952(a)(2). Authorization will not extend to the import of Food and Drug Administration-approved or non-approved finished dosage forms for commercial sale.

Claude Redd,

Acting Deputy Assistant Administrator.

[FR Doc. 2023-19181 Filed 9-5-23; 8:45 am]

BILLING CODE P

DEPARTMENT OF LABOR

Employee Benefits Security Administration

Advisory Council on Employee Welfare and Pension Benefit Plans; Nominations for Vacancies

Section 512 of the Employee Retirement Income Security Act of 1974 (ERISA), 88 Stat. 895, 29 U.S.C. 1142, provides for the establishment of an Advisory Council on Employee Welfare and Pension Benefit Plans (the Council), consisting of 15 members appointed by the Secretary of Labor (the Secretary) as follows:

- Three representatives of employee organizations (at least one of whom shall be a representative of an organization whose members are participants in a multiemployer plan);
- three representatives of employers (at least one of whom shall be a representative of employers maintaining or contributing to multiemployer plans);
- three representatives from the general public (one of whom shall be a person representing those receiving benefits from a pension plan); and
- one representative each from the fields of insurance, corporate trust, actuarial counseling, investment counseling, investment management, and accounting.

No more than eight members of the Council shall be members of the same political party.

Council members must be qualified to appraise the programs instituted under ERISA. Appointments are for three-year terms. The Council's prescribed duties are to advise the Secretary with respect to carrying out their functions under ERISA, and to submit to the Secretary, or their designee, related recommendations. The Council will meet at least four times each year.

The terms of five Council members expire at the end of this year. The groups or fields they represent are as follows:

- (1) Employee organizations;
- (2) employers;
- (3) the general public;
- (4) corporate trust; and
- (5) investment management.

The Department of Labor is committed to equal opportunity in the workplace and seeks a broad-based and diverse Council. Selection of Council membership will be consistent with achieving the greatest impact, scope, and credibility among diverse stakeholders. The diversity in such membership includes, but is not limited to, race, gender, disability, sexual orientation, and gender identity.

If you or your organization wants to nominate one or more people for appointment to the Council to represent one of the groups or fields specified above, submit nominations to Christine Donahue, Council Executive Secretary, as email attachments to donahue.christine@dol.gov or by mail to U.S. Department of Labor, 200 Constitution Ave. NW, Suite N-5623, Washington, DC 20210. Nominations must be received on or before October 23, 2023. If sending electronically, please use an attachment in rich text, Word, or pdf format. If sending by regular mail, please allow three weeks for mail delivery to the Department of Labor. Nominations may be in the form of a letter, resolution, or petition signed by the person making the nomination or, in the case of a nomination by an organization, by an authorized representative of the organization. The Department of Labor encourages you to include additional supporting letters of nomination. The Department of Labor will not consider self-nominees who have no supporting letters.

Nominations, including supporting letters, should:

- State the person's qualifications to serve on the Council (including any particular specialized knowledge or experience relevant to the nominee's proposed Council position);

- state that the candidate will accept appointment to the Council if offered;
- include which of the five positions (representing groups or fields) you are nominating the candidate to fill;
- include the nominee's full name, work affiliation, mailing address, phone number, and email address;
- include the nominator's full name, work affiliation, mailing address, phone number, and email address;
- include the nominator's signature, whether sent by email or otherwise.

Please do not include any information that you do not want publicly disclosed.

The Department of Labor will contact nominees for information on their political affiliation and their status as registered lobbyists. Anyone currently subject to federal registration requirements as a lobbyist is not eligible for appointment. Nominees should be aware of the time commitment for attending meetings and actively participating in the work of the Council. Historically, this has meant a commitment of at least 20 days per year. The Department of Labor has a process for vetting nominees under consideration for appointment.

Signed at Washington, DC, this 30th day of August, 2023.

Lisa M. Gomez,

Assistant Secretary, Employee Benefits Security Administration.

[FR Doc. 2023-19140 Filed 9-5-23; 8:45 am]

BILLING CODE 4510-29-P

NATIONAL FOUNDATION ON THE ARTS AND THE HUMANITIES

Institute of Museum and Library Services

Notice of Proposed Information Collection Requests: Generic Clearance for the Collection of Qualitative Feedback on Agency Service Delivery

AGENCY: Institute of Museum and Library Services, National Foundation on the Arts and the Humanities.

ACTION: Notice, request for comments, collection of information.

SUMMARY: The Institute of Museum and Library Services (IMLS), as part of its

continuing effort to reduce paperwork and respondent burden, conducts a pre-clearance consultation program to provide the general public and federal agencies with an opportunity to comment on proposed and/or continuing collections of information in accordance with the Paperwork Reduction Act. This pre-clearance consultation program helps to ensure that requested data can be provided in the desired format, reporting burden (time and financial resources) is minimized, collection instruments are clearly understood, and the impact of collection requirements on respondents can be properly assessed. The purpose of this Notice is to solicit comments concerning the renewal of the Generic Clearance for the Collection of Qualitative Feedback on Agency Service Delivery. A copy of the proposed information collection request can be obtained by contacting the individual listed below in the **ADDRESSES** section of this Notice.

DATES: Written comments must be submitted to the office listed in the **ADDRESSES** section below on or before November 4, 2023.

ADDRESSES: Send comments to Connie Bodner, Ph.D., Director of Grants Policy and Management, Office of Grants Policy and Management, Institute of Museum and Library Services, 955 L'Enfant Plaza North SW, Suite 4000, Washington, DC 20024-2135. Dr. Bodner can be reached by telephone: 202-653-4636, or by email at cbodner@imls.gov. Office hours are from 8:30 a.m. to 5 p.m., E.T., Monday through Friday, except federal holidays. Persons who are deaf or hard of hearing (TTY users) can contact IMLS at 202-207-7858 via 711 for TTY-Based Telecommunications Relay Service.

FOR FURTHER INFORMATION CONTACT: Jake Soffronoff, Survey Methodologist, Office of Research and Evaluation, Institute of Museum and Library Services, 955 L'Enfant Plaza North SW, Suite 4000, Washington DC 20024-2135. Mr. Soffronoff can be reached by telephone at 202-653-4648, or by email at jsoffronoff@imls.gov. Persons who are deaf or hard of hearing (TTY users) can contact IMLS at 202-207-7858 via 711 for TTY-Based Telecommunications Relay Service.

SUPPLEMENTARY INFORMATION: IMLS is particularly interested in public comments that help the agency to:

- Evaluate whether the proposed collection of information is necessary for the proper performance of the functions of the agency, including whether the information will have practical utility;

- Evaluate the accuracy of the agency's estimate of the burden of the proposed collection of information including the validity of the methodology and assumptions used;
- Enhance the quality, utility, and clarity of the information to be collected; and
- Minimize the burden of the collection of information on those who are to respond, including through the use of appropriate automated electronic, mechanical, or other technological collection techniques, or other forms of information technology, e.g., permitting electronic submissions of responses.

I. Background

The Institute of Museum and Library Services is the primary source of federal support for the Nation's libraries and museums. We advance, support, and empower America's museums, libraries, and related organizations through grant making, research, and policy development. To learn more, visit www.imls.gov.

II. Current Actions

This proposed request is to renew IMLS's Generic Clearance for the Collection of Qualitative Feedback on Agency Service Delivery. This data collection activity provides a means to garner qualitative customer and stakeholder feedback in an efficient and timely manner in accordance with the Administration's commitment to improving service delivery. By qualitative feedback, IMLS means information that provides useful insights on perceptions and opinions, but whose collection does not yield results that can be generalized to the population of study. The Generic Clearance for the Collection of Qualitative Feedback on Agency Service Delivery has been conducted by the Institute of Museum and Library Services under the clearance number 3137-0081, which expires December 31, 2023.

Agency: Institute of Museum and Library Services.

Title: Generic Clearance for the Collection of Qualitative Feedback on Agency Service Delivery.

OMB Control Number: 3137-0081.

Agency Number: 3137.

Respondents/Affected Public: Museum staff; library staff; IMLS awardees; State, Local and Tribal Governments; State Library Administrative Agencies.

Total Estimated Number of Annual Respondents: 9,975.

Frequency of Response: Once per request.

Average Minutes per Response: 18.

Total Estimated Number of Annual Burden Hours: 2,975.

Cost Burden (dollars): \$90,619.

Public Comments Invited: Comments submitted in response to this Notice will be summarized and/or included in the request for OMB's clearance of this information collection.

Dated: August 30, 2023.

Suzanne Mbollo,

Grants Management Specialist, Institute of Museum and Library Services.

[FR Doc. 2023-19138 Filed 9-5-23; 8:45 am]

BILLING CODE 7036-01-P

OFFICE OF PERSONNEL MANAGEMENT

[Docket ID: OPM-2023-0029]

Submission for Review: 3206-0190, Application for Deferred or Postponed Retirement: Federal Employees Retirement System, RI 92-19

AGENCY: Office of Personnel Management.

ACTION: 60-Day notice and request for comments.

SUMMARY: The Office of Personnel Management (OPM), Retirement Services, offers the general public and other Federal agencies the opportunity to comment on the review of the following expiring information collection request (ICR) with change: Application for Deferred or Postponed Retirement: Federal Employees Retirement System, RI 92-19.

DATES: Comments are encouraged and will be accepted until November 6, 2023.

ADDRESSES: You may submit comments, identified by docket number and title, by the following method:

- *Federal Rulemaking Portal:* <https://www.regulations.gov>. Follow the instructions for submitting comments.

All submissions received must include the agency name and docket number for this document. The general policy for comments and other submissions from members of the public is to make these submissions available for public viewing at <https://www.regulations.gov> as they are received without change, including any personal identifiers or contact information.

FOR FURTHER INFORMATION CONTACT: A copy of this ICR with applicable supporting documentation may be obtained by contacting the Retirement Services Publications Team, Office of Personnel Management, 1900 E Street NW, Room 3316-L, Washington, DC

20415, Attention: Cyrus S. Benson, or sent by email to Cyrus.Benson@opm.gov or faxed to (202) 606–0910 or reached via telephone at (202) 936–0401.

SUPPLEMENTARY INFORMATION: Form RI 92–19 is used by separated employees to apply for either a Federal Employees' Retirement System (FERS) deferred or a postponed retirement annuity benefit. As required by the Paperwork Reduction Act of 1995 (Pub. L. 104–13), as amended (44 U.S.C. chapter 35), OPM is soliciting comments for this collection (OMB No. 3206–0190). OPM is particularly interested in comments that:

1. Evaluate whether the proposed collection of information is necessary for the proper performance of functions of the agency, including whether the information will have practical utility;

2. Evaluate the accuracy of the agency's estimate of the burden of the proposed collection of information, including the validity of the methodology and assumptions used;

3. Enhance the quality, utility, and clarity of the information to be collected; and

4. Minimize the burden of the collection of information on those who are to respond, including through the use of appropriate automated, electronic, mechanical, or other technological collection techniques or other forms of information technology, e.g., permitting electronic submissions of responses.

Analysis

Agency: Office of Personnel Management, Retirement Services.

Title: Application for Deferred or Postponed Retirement: Federal Employees Retirement System (FERS).

OMB Number: 3206–0190.

Frequency: On occasion.

Affected Public: Individuals or Households.

Number of Respondents: 1,964.

Estimated Time per Respondent: 60 minutes.

Total Burden Hours: 1,964.

Office of Personnel Management.

Kayyonne Marston,

Federal Register Liaison.

[FR Doc. 2023–19193 Filed 9–5–23; 8:45 am]

BILLING CODE 6325–38–P

OFFICE OF PERSONNEL MANAGEMENT

[Docket ID: OPM–2023–0031]

Submission for Review: 3206–0194, Annuity Supplement Earnings Report, RI 92–22

AGENCY: Office of Personnel Management.

ACTION: 60-Day notice and request for comments.

SUMMARY: The Office of Personnel Management (OPM), Retirement Services, offers the general public and other Federal agencies the opportunity to comment on the review of the following expiring information collection request (ICR) with change: Annuity Supplement Earnings Report, RI 92–22.

DATES: Comments are encouraged and will be accepted until November 6, 2023.

ADDRESSES: You may submit comments, identified by docket number and title, by the following method:

- *Federal Rulemaking Portal:* <https://www.regulations.gov>. Follow the instructions for submitting comments.

All submissions received must include the agency name and docket number for this document. The general policy for comments and other submissions from members of the public is to make these submissions available for public viewing at <https://www.regulations.gov> as they are received without change, including any personal identifiers or contact information.

FOR FURTHER INFORMATION CONTACT: A copy of this ICR with applicable supporting documentation may be obtained by contacting the Retirement Services Publications Team, Office of Personnel Management, 1900 E Street NW, Room 3316–L, Washington, DC 20415, Attention: Cyrus S. Benson, or sent by email to Cyrus.Benson@opm.gov or faxed to (202) 606–0910 or reached via telephone at (202) 936–0401.

SUPPLEMENTARY INFORMATION: Federal Employees' Retirement System (FERS) annuitants who are not retired on disability and are not yet age 62 may be eligible for a supplement to the FERS annuity. The supplement approximates the portion of full career Social Security benefits earned while under FERS and ends at age 62. Like Social Security benefits, the annuity supplement is subject to an earnings limitation. Accordingly, RI 92–22 is used to obtain the annual earned income of certain FERS annuitants to determine each

annuitant's eligibility to continue receiving an annuity supplement.

As required by the Paperwork Reduction Act of 1995 (Pub. L. 104–13) as amended (44 U.S.C. chapter 35), OPM is soliciting comments for this collection (OMB No. 3206–0194). OPM is particularly interested in comments that:

1. Evaluate whether the proposed collection of information is necessary for the proper performance of functions of the agency, including whether the information will have practical utility;

2. Evaluate the accuracy of the agency's estimate of the burden of the proposed collection of information, including the validity of the methodology and assumptions used;

3. Enhance the quality, utility, and clarity of the information to be collected; and

4. Minimize the burden of the collection of information on those who are to respond, including through the use of appropriate automated, electronic, mechanical, or other technological collection techniques or other forms of information technology, e.g., permitting electronic submissions of responses.

Analysis

Agency: Office of Personnel Management, Retirement Services.

Title: Annuity Supplement Earnings Report.

OMB Number: 3206–0194.

Frequency: On occasion.

Affected Public: Individuals or Households.

Number of Respondents: 13,000.

Estimated Time per Respondent: 15 minutes.

Total Burden Hours: 3,250.

Office of Personnel Management.

Kayyonne Marston,

Federal Register Liaison.

[FR Doc. 2023–19194 Filed 9–5–23; 8:45 am]

BILLING CODE 6325–38–P

OFFICE OF PERSONNEL MANAGEMENT

[Docket ID: OPM–2023–0030]

Submission for Review: 3206–0218, Death Benefit Payment Rollover, RI 94–7

AGENCY: Office of Personnel Management.

ACTION: 60-Day notice and request for comments.

SUMMARY: The Office of Personnel Management (OPM), Retirement Services, offers the general public and

other Federal agencies the opportunity to comment on the review of the following expiring information collection request (ICR) with change: Death Benefit Payment Rollover, RI 94–7.

DATES: Comments are encouraged and will be accepted until November 6, 2023.

ADDRESSES: You may submit comments, identified by docket number and title, by the following method:

- *Federal Rulemaking Portal:* <https://www.regulations.gov>. Follow the instructions for submitting comments.

All submissions received must include the agency name and docket number for this document. The general policy for comments and other submissions from members of the public is to make these submissions available for public viewing at <https://www.regulations.gov> as they are received without change, including any personal identifiers or contact information.

FOR FURTHER INFORMATION CONTACT: A copy of this ICR with applicable supporting documentation may be obtained by contacting the Retirement Services Publications Team, Office of Personnel Management, 1900 E Street NW, Room 3316–L, Washington, DC 20415, Attention: Cyrus S. Benson, or sent by email to Cyrus.Benson@opm.gov or faxed to (202) 606–0910 or reached via telephone at (202) 936–0401.

SUPPLEMENTARY INFORMATION: Form RI 94–7 provides Federal Employees Retirement System (FERS) surviving spouses and former spouses with the means to elect payment of FERS rollover-eligible benefits directly or to an Individual Retirement Arrangement (IRA), eligible employer plan, or Thrift Savings Plan (TSP) account. As required by the Paperwork Reduction Act of 1995 (Pub. L. 104–13), as amended (44 U.S.C. chapter 35), OPM is soliciting comments for this collection (OMB No. 3206–0218). OPM is particularly interested in comments that:

1. Evaluate whether the proposed collection of information is necessary for the proper performance of functions of the agency, including whether the information will have practical utility;
2. Evaluate the accuracy of the agency's estimate of the burden of the proposed collection of information, including the validity of the methodology and assumptions used;
3. Enhance the quality, utility, and clarity of the information to be collected; and
4. Minimize the burden of the collection of information on those who

are to respond, including through the use of appropriate automated, electronic, mechanical, or other technological collection techniques or other forms of information technology, e.g., permitting electronic submissions of responses.

Analysis

Agency: Office of Personnel Management, Retirement Services.
Title: Death Benefit Payment Rollover.
OMB Number: 3206–0218.

Frequency: On occasion.
Affected Public: Individuals or Households.

Number of Respondents: 3,444.
Estimated Time per Respondent: 1 hour.

Total Burden Hours: 3,444.

Office of Personnel Management.

Kayyonne Marston,
Federal Register Liaison.

[FR Doc. 2023–19192 Filed 9–5–23; 8:45 am]

BILLING CODE 6325–38–P

POSTAL REGULATORY COMMISSION

[Docket Nos. CP2022–74; CP2022–77; CP2022–92; MC2023–250 and CP2023–253]

New Postal Products

AGENCY: Postal Regulatory Commission.

ACTION: Notice.

SUMMARY: The Commission is noticing a recent Postal Service filing for the Commission's consideration concerning a negotiated service agreement. This notice informs the public of the filing, invites public comment, and takes other administrative steps.

DATES: *Comments are due:* September 7, 2023.

ADDRESSES: Submit comments electronically via the Commission's Filing Online system at <http://www.prc.gov>. Those who cannot submit comments electronically should contact the person identified in the **FOR FURTHER INFORMATION CONTACT** section by telephone for advice on filing alternatives.

FOR FURTHER INFORMATION CONTACT: David A. Trissell, General Counsel, at 202–789–6820.

SUPPLEMENTARY INFORMATION:

Table of Contents

- I. Introduction
- II. Docketed Proceeding(s)

I. Introduction

The Commission gives notice that the Postal Service filed request(s) for the Commission to consider matters related

to negotiated service agreement(s). The request(s) may propose the addition or removal of a negotiated service agreement from the Market Dominant or the Competitive product list, or the modification of an existing product currently appearing on the Market Dominant or the Competitive product list.

Section II identifies the docket number(s) associated with each Postal Service request, the title of each Postal Service request, the request's acceptance date, and the authority cited by the Postal Service for each request. For each request, the Commission appoints an officer of the Commission to represent the interests of the general public in the proceeding, pursuant to 39 U.S.C. 505 (Public Representative). Section II also establishes comment deadline(s) pertaining to each request.

The public portions of the Postal Service's request(s) can be accessed via the Commission's website (<http://www.prc.gov>). Non-public portions of the Postal Service's request(s), if any, can be accessed through compliance with the requirements of 39 CFR 3011.301.¹

The Commission invites comments on whether the Postal Service's request(s) in the captioned docket(s) are consistent with the policies of title 39. For request(s) that the Postal Service states concern Market Dominant product(s), applicable statutory and regulatory requirements include 39 U.S.C. 3622, 39 U.S.C. 3642, 39 CFR part 3030, and 39 CFR part 3040, subpart B. For request(s) that the Postal Service states concern Competitive product(s), applicable statutory and regulatory requirements include 39 U.S.C. 3632, 39 U.S.C. 3633, 39 U.S.C. 3642, 39 CFR part 3035, and 39 CFR part 3040, subpart B. Comment deadline(s) for each request appear in section II.

II. Docketed Proceeding(s)

1. *Docket No(s):* CP2022–74; *Filing Title:* USPS Notice of Amendment to Priority Mail Express, Priority Mail, First-Class Package Service & Parcel Select Contract 11, Filed Under Seal; *Filing Acceptance Date:* August 29, 2023; *Filing Authority:* 39 CFR 3035.105; *Public Representative:* Philip T. Abraham; *Comments Due:* September 7, 2023.

2. *Docket No(s):* CP2022–77; *Filing Title:* USPS Notice of Amendment to Priority Mail Express, Priority Mail, First-Class Package Service & Parcel

¹ See Docket No. RM2018–3, Order Adopting Final Rules Relating to Non-Public Information, June 27, 2018, Attachment A at 19–22 (Order No. 4679).

Select Contract 14, Filed Under Seal; *Filing Acceptance Date*: August 29, 2023; *Filing Authority*: 39 CFR 3035.105; *Public Representative*: Kenneth R. Moeller; *Comments Due*: September 7, 2023.

3. *Docket No(s)*: CP2022–92; *Filing Title*: USPS Notice of Amendment to Priority Mail Express, Priority Mail, First-Class Package Service & Parcel Select Contract 18, Filed Under Seal; *Filing Acceptance Date*: August 29, 2023; *Filing Authority*: 39 CFR 3035.105; *Public Representative*: Kenneth R. Moeller; *Comments Due*: September 7, 2023.

4. *Docket No(s)*: MC2023–250 and CP2023–253; *Filing Title*: USPS Request to add Priority Mail & USPS Ground Advantage Contract 42 to Competitive Product List and Notice of Filing Under Seal; *Filing Acceptance Date*: August 29, 2023; *Filing Authority*: 39 U.S.C. 3642, 39 CFR 3040.130 through 3040.135, and 39 CFR 3035.105; *Public Representative*: Philip T. Abraham; *Comments Due*: September 7, 2023.

This Notice will be published in the **Federal Register**.

Erica A. Barker,
Secretary.

[FR Doc. 2023–19119 Filed 9–5–23; 8:45 am]

BILLING CODE 7710–FW–P

SECURITIES AND EXCHANGE COMMISSION

[Release No. 34–98253; File No. SR–MEMX–2023–17]

Self-Regulatory Organizations; MEMX LLC; Notice of Filing and Immediate Effectiveness of a Proposed Rule Change To Amend Rule 19.3 (Criteria for Underlying Securities) To Accelerate the Listing of Options on Certain IPOs

August 30, 2023.

Pursuant to section 19(b)(1) of the Securities Exchange Act of 1934 (the “Act”),¹ and Rule 19b–4 thereunder,² notice is hereby given that on August 22, 2023, MEMX LLC (“MEMX” or the “Exchange”) filed with the Securities and Exchange Commission (the “Commission”) the proposed rule change as described in Items I and II below, which Items have been prepared by the Exchange. The Commission is publishing this notice to solicit comments on the proposed rule change from interested persons.

I. Self-Regulatory Organization’s Statement of the Terms of Substance of the Proposed Rule Change

The Exchange proposes to amend MEMX Rule 19.3 (Criteria for Underlying Securities) to permit an underlying security having a market capitalization of at least \$3 billion based upon the offering price of its initial public offering, to be listed and traded starting on or after the second business day following the initial public offering day. The text of the proposed rule change is provided in Exhibit 5.

II. Self-Regulatory Organization’s Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

In its filing with the Commission, the Exchange included statements concerning the purpose of and basis for the proposed rule change and discussed any comments it received on the proposed rule change. The text of these statements may be examined at the places specified in Item IV below. The Exchange has prepared summaries, set forth in sections A, B, and C below, of the most significant aspects of such statements.

A. Self-Regulatory Organization’s Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

1. Purpose

In August 2022, the Commission approved the Exchange’s adoption of rules to govern the trading of options on the Exchange by MEMX Options,³ which will be a facility of the Exchange. The Exchange plans to launch MEMX Options in September 2023, and in advance of that launch, the Exchange is proposing a listings rule change applicable to options that is substantially similar in all material respects to the proposal approved from NYSE American LLC (“NYSE American”).⁴ Specifically, the Exchange proposes to amend Rule 19.3 (Criteria for Underlying Securities) to permit an underlying security having a market capitalization of at least \$3 billion based upon the offering price of its initial public offering, to be listed and traded starting on or after the second business day following the initial public offering day. This is a competitive filing that is based on a proposal recently submitted

by NYSE American and approved by the Commission.⁵

The purpose of the proposed rule change is to amend Rule 19.3 (Criteria for Underlying Securities) (the “Rule”) as set forth below. Following discussions with other exchanges and a cross-section of industry participants and in coordination with the Listed Options Market Structure Working Group (“LOMSWG”) (collectively, the “Industry Working Group”), the Exchange proposes to modify the standard set forth in the Rule for the listing and trading of options on “covered securities” to reduce the time to market.

Rule 19.3(b)(5)(A) sets forth the guidelines to be considered in evaluating for option transactions underlying securities that are “covered securities,” as defined in section 18(b)(1)(A) of the Securities Act of 1933 (hereinafter “covered security” or “covered securities”).⁶ Currently, the Exchange permits the listing of an option on an underlying covered security that, amongst other things, has a market price of at least \$3.00 per share for the previous three consecutive business days preceding the date on which the Exchange submits a certificate to The Options Clearing Corporation (“OCC”) to list and trade options on the underlying security (the “three-day lookback period”).⁷ Under the current rule, if an initial public offering (“IPO”) occurs on a Monday, the earliest date the Exchange could submit its listing certificate to OCC would be on Thursday, with the market price determined by the closing price over the three-day lookback period from Monday through Wednesday. The option on the IPO’d security would then be eligible for trading on the Exchange on Friday (*i.e.*, within four business days of the IPO inclusive of the day the listing certificate is submitted to OCC).

The Exchange notes that the three-day look back period helps ensure that options on underlying securities may be listed and traded in a timely manner while also allowing time for OCC to accommodate the certification request. However, there are certain large IPOs that issue high-priced securities—well

⁵ *Id.*

⁶ Rule 19.3(a) requires that, for underlying securities to be eligible for option transactions, such securities must be duly registered and be an “NMS stock” as defined in Rule 600 of Regulation NMS under the Act and will be characterized by a substantial number of outstanding shares which are widely held and actively traded. See MEMX Rule 19.3(a)(1) and (2).

⁷ See MEMX Rule 19.3(b)(5)(A). The Exchange is not proposing to make any changes to the guidelines for listing securities that are not a “covered security”. See MEMX Rule 19.3(b)(5)(B).

¹ 15 U.S.C. 78s(b)(1).

² 17 CFR 240.19b–4.

³ See Securities Exchange Act Release No. 95445 (August 9, 2022), 87 FR 49884 (August 12, 2022) (SR–MEMX–2022–010).

⁴ See Securities Exchange Act Release No. 98013 (July 27, 2013) (Order Approving SR–NYSEAMER–2023–27).

above the \$3.00 per share threshold—that would obviate the need for the three-day lookback period. In this regard, the Industry Working Group has recently identified proposed changes to Rule 19.3(b)(5)(A) that would help options on covered securities that have a market capitalization of at least \$3 billion based upon the offering price of its IPO come to market earlier.⁸ The proposed change, which is intended to be harmonized across options exchanges, is designed to provide investors the opportunity to hedge their interest in IPO investments in a shorter amount of time than what is currently permitted.⁹ The Exchange believes that options serve a valuable tool to the trading community and help markets function efficiently by mitigating risk. To that end, the Exchange believes that the absence of options in the early days after an IPO may heighten volatility in the trading of IPO'd securities.

Accordingly, the Exchange proposes to modify Rule 19.3 to waive the three-day lookback period for covered securities that have a market capitalization of at least \$3 billion based upon the offering price of the IPO of such securities and to allow options on such securities to be listed and traded starting on or after the second business day following the initial public offering day (*i.e.*, not inclusive of the day of the IPO).¹⁰ NYSE American has reviewed trading data for IPO'd securities dating back to 2017 and stated that it is unaware of any such security that achieved a market capitalization of \$3 billion based upon the offering price of its IPO that would not have also qualified for listing options based on the three-day lookback requirement. Specifically, NYSE American determined that 202 of the 1,179 IPOs that took place between January 1, 2017,

and October 21, 2022, met the \$3 billion market capitalization/IPO offering price threshold. Options on all 202 of those IPO shares subsequently satisfied the three-day lookback requirement for listing and trading, *i.e.*, none of these large IPOs closed below the \$3.00/share threshold during its first three days of its trading. As such, the Exchange believes the proposed capitalization threshold of \$3 billion based upon the offering price of its IPO is appropriate.

Under the proposed rule, if an IPO for a company with a market capitalization of \$3 billion based upon the offering price of its IPO occurs on a Monday, the Exchange could submit its listing certificate to OCC (to list and trade options on the IPO'd security) as soon as all the other requirements for listing are satisfied. If, on Tuesday, all requirements are deemed satisfied, the IPO'd security could then be eligible for trading on the Exchange on Wednesday (*i.e.*, starting on or after the second business day following the IPO day). Thus, the proposal could potentially accelerate the listing of options on IPO'd securities by two days. The Exchange believes the proposed change would allow options on IPO'd securities to come to market sooner without sacrificing investor protection. The Exchange represents that trading in IPO'd securities—like all other securities traded on the Exchange—is subject to surveillances administered by the Exchange and to cross-market surveillances administered by FINRA on behalf of the Exchange. Those surveillances are designed to detect violations of Exchange rules and applicable federal securities laws.¹¹ The Exchange represents that those surveillances are adequate to reasonably monitor Exchange trading of IPO'd securities in all trading sessions and to reasonably deter and detect violations of Exchange rules and federal securities laws applicable to trading on the Exchange.¹² As such, the Exchange believes that its existing surveillance technologies and procedures, coupled with NYSE American's findings related to the IPOs reviewed as described herein, adequately address potential concerns regarding possible manipulation or price stability.

Implementation Date

The Exchange will announce the effective date of the proposed change by

Notice distributed to all Members.¹³ The Exchange will coordinate the effective date to coincide with the implementation of the proposed change on the other options exchanges.

2. Statutory Basis

The Exchange believes that its proposal is consistent with section 6(b) of the Act,¹⁴ in general, and furthers the objectives of section 6(b)(5) of the Act,¹⁵ in particular, in that it is designed to prevent fraudulent and manipulative practices, to promote just and equitable principles of trade, to foster cooperation and coordination with persons engaged in regulating, clearing, settling, processing information with respect to, and facilitating transactions in securities, to remove impediments to and perfect the mechanism of a free and open market and a national market system, and, in general to protect investors and the public interest. In particular, the Exchange believes the proposed change would facilitate options transactions and would remove impediments to and perfect the mechanism of a free and open market and a national market system, which would, in turn, protect investors and the public interest by providing an avenue for options on IPO'd securities to come to market earlier. The Exchange notes that the three-day look back period helps ensure that options on underlying securities may be listed and traded in a timely manner while also allowing time for OCC to accommodate the certification request. However, there are certain large IPOs that issue high-priced securities—well above the \$3.00 per share threshold—that would obviate the need for the three-day lookback period. As noted above, NYSE American has reviewed trading data for IPO'd securities dating back to 2017 and it is unaware of an IPO'd security with a market capitalization of \$3 billion or more (based upon the offering price of its IPO) that subsequently would have failed to qualify for listing and trading as options under the three-day lookback requirement. The Exchange believes that the proposed amendment, which would be harmonized across options exchanges, would remove impediments to and perfect the mechanism of a free and open market and a national market system by providing an avenue for investors to hedge their interest in IPO investments in a shorter amount of time than what is currently permitted. The

⁸ See proposed Rule 19.3(b)(5)(A)(2). The Exchange proposes a non-substantive change to number the existing and proposed criteria for covered securities as (1) and (2) of paragraph (5)(A). See proposed Rule 19.3(b)(5)(A).

⁹ While the Exchange acknowledges that market participants may utilize options for speculative purposes (in addition to as a hedging tool), the Exchange believes (as set forth below) that its surveillance technologies and procedures adequately address potential violations of Exchange rules and federal securities laws applicable to trading on the Exchange.

¹⁰ The Exchange acknowledges that the Options Listing Procedures Plan (or "OLPP") requires that the listing certificate be provided to OCC no earlier than 12:01 a.m. and no later than 11:00 a.m. (Chicago time) on the trading day prior to the day on which trading is to begin. See the OLPP, at p. 3., available here: https://www.theocc.com/getmedia/198bfc93-5d51-443c-9e5bfd575a0a7d0f/options_listing_procedures_plan.pdf. The OLPP is a national market system plan that, among other things, sets forth procedures governing the listing of new options series.

¹¹ FINRA conducts cross-market surveillances on behalf of the Exchange pursuant to a Regulatory Services Agreement. The Exchange is responsible for FINRA's performance under this Regulatory Services Agreement.

¹² See *supra* note 10.

¹³ The term "Member" shall mean any registered broker or dealer that has been admitted to membership in the Exchange. See Rule 1.5(p).

¹⁴ 15 U.S.C. 78f(b).

¹⁵ 15 U.S.C. 78f(b)(5).

Exchange believes that options serve a valuable tool to the trading community and help markets function efficiently by mitigating risk. To that end, the Exchange believes that the absence of options in the early days after an IPO may heighten volatility to IPO'd securities.¹⁶

Further, as noted herein, the Exchange believes the proposed change would allow options on IPO'd securities to come to market sooner (*i.e.*, at least two business days post-IPO not inclusive of the day of the IPO) without sacrificing investor protection. The Exchange represents that trading in IPO'd securities—like all other securities traded on the Exchange—is subject to surveillances administered by the Exchange and to cross-market surveillances administered by FINRA on behalf of the Exchange. Those surveillances are designed to detect violations of Exchange rules and applicable federal securities laws.¹⁷ The Exchange represents that those surveillances are adequate to reasonably monitor Exchange trading of IPO'd securities in all trading sessions and to reasonably deter and detect violations of Exchange rules and federal securities laws applicable to trading on the Exchange, including wrongful efforts to manipulate the prices of those securities in order to bring them in compliance with the \$3.00/share threshold for the listing of options. As such, the Exchange believes that its existing surveillance technologies and procedures, coupled with NYSE American's findings related to the IPOs reviewed as described herein, would adequately address potential concerns regarding possible manipulation or price stability.

B. Self-Regulatory Organization's Statement on Burden on Competition

The Exchange does not believe that the proposed rule change will impose any burden on competition that is not necessary or appropriate in furtherance of the purposes of the Act. In this regard and as indicated above, the Exchange notes that the rule change is being proposed as a competitive response to a filing submitted by NYSE American that was recently approved by the Commission.¹⁸ The Exchange anticipates that the other options exchanges will adopt substantively similar proposals,¹⁹ such that there would be no burden on intermarket

competition from the Exchange's proposal. Accordingly, the proposed change is not meant to affect competition among the options exchanges. For these reasons, the Exchange believes that the proposed rule change reflects this competitive environment and does not impose any undue burden on intermarket competition.

C. Self-Regulatory Organization's Statement on Comments on the Proposed Rule Change Received From Members, Participants, or Others

The Exchange neither solicited nor received comments on the proposed rule change.

III. Date of Effectiveness of the Proposed Rule Change and Timing for Commission Action

Because the foregoing proposed rule change does not: (i) significantly affect the protection of investors or the public interest; (ii) impose any significant burden on competition; and (iii) become operative for 30 days from the date on which it was filed, or such shorter time as the Commission may designate, it has become effective pursuant to section 19(b)(3)(A) of the Act²⁰ and Rule 19b-4(f)(6) thereunder.²¹

A proposed rule change filed under Rule 19b-4(f)(6)²² normally does not become operative prior to 30 days after the date of the filing. However, pursuant to Rule 19b-4(f)(6)(iii),²³ the Commission may designate a shorter time if such action is consistent with the protection of investors and the public interest. The Exchange has asked the Commission to waive the 30-day operative delay so that the proposed rule change may become operative upon filing. The Exchange requested the waiver, stating that it would ensure fair competition among the exchanges by allowing the Exchange to allow options on IPO'd securities to come to market sooner (*i.e.*, at least two business days post-IPO not inclusive of the day of the IPO) without sacrificing investor protection. For these reasons, and because the proposed rule change does not raise any novel legal or regulatory issues, the Commission believes that waiving the 30-day operative delay is consistent with the protection of

investors and the public interest. Therefore, the Commission hereby waives the 30-day operative delay and designates the proposal operative upon filing.²⁴

At any time within 60 days of the filing of the proposed rule change, the Commission summarily may temporarily suspend such rule change if it appears to the Commission that such action is necessary or appropriate in the public interest, for the protection of investors, or otherwise in furtherance of the purposes of the Act. If the Commission takes such action, the Commission shall institute proceedings to determine whether the proposed rule change should be approved or disapproved.

IV. Solicitation of Comments

Interested persons are invited to submit written data, views and arguments concerning the foregoing, including whether the proposed rule change is consistent with the Act. Comments may be submitted by any of the following methods:

Electronic Comments

- Use the Commission's internet comment form (<https://www.sec.gov/rules/sro.shtml>); or
- Send an email to rule-comments@sec.gov. Please include file number SR-MEMX-2023-17 on the subject line.

Paper Comments

- Send paper comments in triplicate to Secretary, Securities and Exchange Commission, 100 F Street NE, Washington, DC 20549-1090.
- All submissions should refer to file number SR-MEMX-2023-17. This file number should be included on the subject line if email is used. To help the Commission process and review your comments more efficiently, please use only one method. The Commission will post all comments on the Commission's internet website (<https://www.sec.gov/rules/sro.shtml>). Copies of the submission, all subsequent amendments, all written statements with respect to the proposed rule change that are filed with the Commission, and all written communications relating to the proposed rule change between the Commission and any person, other than those that may be withheld from the public in accordance with the provisions of 5 U.S.C. 552, will be available for website viewing and

²⁰ 15 U.S.C. 78s(b)(3)(A).

²¹ 17 CFR 240.19b-4(f)(6)(iii). In addition, Rule 19b-4(f)(6) requires a self-regulatory organization to give the Commission written notice of its intent to file the proposed rule change at least five business days prior to the date of filing of the proposed rule change, or such shorter time as designated by the Commission. The Exchange has satisfied this requirement.

²² 17 CFR 240.19b-4(f)(6).

²³ 17 CFR 240.19b-4(f)(6)(iii).

²⁴ For purposes only of waiving the 30-day operative delay, the Commission has also considered the proposed rule's impact on efficiency, competition, and capital formation. See 15 U.S.C. 78c(f).

¹⁶ See *supra* note 10.

¹⁷ See *supra* note 11.

¹⁸ See *supra* note 4.

¹⁹ BOX Exchange LLC ("BOX") recently filed a similar proposal. See Securities Exchange Act Release No. 98073 (August 7, 2023) (SR-BOX-2023-21).

printing in the Commission's Public Reference Room, 100 F Street NE, Washington, DC 20549, on official business days between the hours of 10 a.m. and 3 p.m. Copies of the filing also will be available for inspection and copying at the principal office of the Exchange. Do not include personal identifiable information in submissions; you should submit only information that you wish to make available publicly. We may redact in part or withhold entirely from publication submitted material that is obscene or subject to copyright protection. All submissions should refer to file number SR-MEMX-2023-17 and should be submitted on or before September 27, 2023.

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.²⁵

Sherry R. Haywood,

Assistant Secretary.

[FR Doc. 2023-19123 Filed 9-5-23; 8:45 am]

BILLING CODE 8011-01-P

SECURITIES AND EXCHANGE COMMISSION

[Release No. 34-98249; File No. SR-MIAX-2023-32]

Self-Regulatory Organizations; Miami International Securities Exchange, LLC; Notice of Filing and Immediate Effectiveness of a Proposed Rule Change To Amend Exchange Rule 402 (Criteria for Underlying Securities) To Accelerate the Listing of Options on Certain IPOs

August 30, 2023.

Pursuant to section 19(b)(1) of the Securities Exchange Act of 1934 ("Act"),¹ and Rule 19b-4 thereunder,² notice is hereby given that on August 23, 2023, Miami International Securities Exchange LLC ("MIAX" or "Exchange") filed with the Securities and Exchange Commission ("Commission") the proposed rule change as described in Items I and II below, which Items have been prepared by the Exchange. The Commission is publishing this notice to solicit comments on the proposed rule change from interested persons.

I. Self-Regulatory Organization's Statement of the Terms of Substance of the Proposed Rule Change

The Exchange is filing a proposal to amend Exchange Rule 402. The text of the proposed rule change is available on the Exchange's website at [https://](https://www.miaxglobal.com/markets/us-options/miax-options/rule-filings)

www.miaxglobal.com/markets/us-options/miax-options/rule-filings, at MIAX's principal office, and at the Commission's Public Reference Room.

II. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

In its filing with the Commission, the Exchange included statements concerning the purpose of and basis for the proposed rule change and discussed any comments it received on the proposed rule change. The text of these statements may be examined at the places specified in Item IV below. The Exchange has prepared summaries, set forth in sections A, B, and C below, of the most significant aspects of such statements.

A. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

1. Purpose

The Exchange proposes to amend Exchange Rule 402, Criteria for Underlying Securities, to permit an underlying security having a market capitalization of at least \$3 billion based upon the offering price of its initial public offering, to be listed and traded starting on or after the second business day following the initial public offering day. The Exchange is proposing a listing rule change that is substantially similar in all material respects to the proposal approved for NYSE American LLC ("NYSE American").³ Following discussions with other exchanges and a cross-section of industry participants and in coordination with the Listed Options Market Structure Working Group ("LOMSWG") (collectively, the "Industry Working Group"), NYSE American filed a proposed rule change,⁴ which was recently approved, to modify the standard for the listing and trading of options on "covered securities" to reduce the time to market. At this time, the Exchange proposes to adopt an identical rule.

Rule 402 sets forth the guidelines to be considered in evaluating for option transactions underlying securities that are "covered securities," as defined in section 18(b)(1)(A) of the Securities Act of 1933 (hereinafter "covered security"

or "covered securities").⁵ Currently, the Exchange permits the listing of an option on an underlying covered security that, amongst other things, has a market price of at least \$3.00 per share for the previous three consecutive business days preceding the date on which the Exchange submits a certificate to The Options Clearing Corporation ("OCC") to list and trade options on the underlying security (the "three-day lookback period").⁶ Under the current rule, if an initial public offering ("IPO") occurs on a Monday, the earliest date the Exchange could submit its listing certificate to OCC would be on Thursday, with the market price determined by the closing price over the three-day lookback period from Monday through Wednesday. The option on the IPO'd security would then be eligible for trading on the Exchange on Friday (i.e., within four business days of the IPO inclusive of the day the listing certificate is submitted to OCC).⁷

The Exchange notes that the three-day look back period helps ensure that options on underlying securities may be listed and traded in a timely manner while also allowing time for OCC to accommodate the certification request. However, there are certain large IPOs that issue high-priced securities—well above the \$3.00 per share threshold—that would obviate the need for the three-day lookback period. In this regard, the Industry Working Group has recently identified proposed changes to Rule 402(b)(5)(i) that would help options on covered securities that have a market capitalization of at least \$3 billion based upon the offering price of its IPO come to market earlier. The proposed change, which is intended to be harmonized across options exchanges, is designed to provide investors the opportunity to hedge their interest in IPO investments in a shorter amount of time than what is currently permitted.⁸ The Exchange believes that

⁵ Rule 402(a) requires that, for underlying securities to be eligible for option transactions, such securities must be duly registered and be an "NMS stock" as defined in Rule 600 of Regulation NMS under the Act and will be characterized by a substantial number of outstanding shares which are widely held and actively traded. See Rule 402(a)(1) and (2).

⁶ See Rule 402(b)(5)(i). The Exchange is not proposing to make any changes to the guidelines for listing securities that are not a "covered security." See Rule 402(b)(5)(ii).

⁷ See proposed Rule 402(b)(5)(i). The Exchange proposes a non-substantive change to number the existing and proposed criteria for covered securities as (A) and (B) of paragraph (5)(i). See proposed Rule 402(b)(5)(i).

⁸ While the Exchange acknowledges that market participants may utilize options for speculative purposes (in addition to as a hedging tool), the Exchange believes (as set forth below) that its

²⁵ 17 CFR 200.30-3(a)(12).

¹ 15 U.S.C. 78s(b)(1).

² 17 CFR 240.19b-4.

³ See Securities Exchange Act Release No. 98013 (July 27, 2023) 88 FR 50927 (August 2, 2023)(SR-NYSEAMER-2023-27)(Order Granting Approval of a Proposed Rule Change to Amend Rule 915 (Criteria for Underlying Securities) to Accelerate the Listing of Options on Certain IPOs).

⁴ *Id.*

options serve a valuable tool to the trading community and help markets function efficiently by mitigating risk. To that end, the Exchange believes that the absence of options in the early days after an IPO may heighten volatility in the trading of IPO'd securities.

Accordingly, the Exchange proposes to modify Rule 402 to waive the three-day lookback period for covered securities that have a market capitalization of at least \$3 billion based upon the offering price of the IPO of such securities and to allow options on such securities to be listed and traded starting on or after the second business day following the initial public offering day (*i.e.*, not inclusive of the day of the IPO).⁹ NYSE American has stated that it has reviewed trading data for IPO'd securities dating back to 2017 and is unaware of any such security that achieved a market capitalization of \$3 billion based upon the offering price of its IPO that would not have also qualified for listing options based on the three-day lookback requirement. Specifically, NYSE American has determined that 202 of the 1,179 IPOs that took place between January 1, 2017, and October 21, 2022, met the \$3 billion market capitalization/IPO offering price threshold. Options on all 202 of those IPO shares subsequently satisfied the three-day lookback requirement for listing and trading, *i.e.*, none of these large IPOs closed below the \$3.00/share threshold during its first three days of its trading. As such, the Exchange believes the proposed capitalization threshold of \$3 billion based upon the offering price of its IPO is appropriate.

Under the proposed rule, if an IPO for a company with a market capitalization of \$3 billion based upon the offering price of its IPO occurs on a Monday, the Exchange could submit its listing certificate to OCC (to list and trade options on the IPO'd security) as soon as all the other requirements for listing are satisfied. If, on Tuesday, all requirements are deemed satisfied, the IPO'd security could then be eligible for trading on the Exchange on Wednesday

existing surveillance technologies and procedures adequately address potential violations of exchange rules and federal securities laws applicable to trading on the Exchange.

⁹ The Exchange acknowledges that the Options Listing Procedures Plan ("OLPP") requires that the listing certificate be provided to OCC no earlier than 12:01 a.m. and no later than 11:00 a.m. (Chicago time) on the trading day prior to the day on which trading is to begin. *See* the OLPP, at p. 3., available here: https://ncuoccblobdev.blob.core.windows.net/media/theocc/media/clearing-services/services/options_listing_procedures_plan.pdf. The OLPP is a national market system plan that, among other things, sets forth procedures governing the listing of new options series.

(*i.e.*, starting on or after the second business day following the IPO day). Thus, the proposal could potentially accelerate the listing of options on IPO'd securities by two days.

The Exchange believes the proposed change would allow options on IPO'd securities to come to market sooner without sacrificing investor protection. The Exchange represents that trading in IPO'd securities—like all other securities traded on the Exchange—is subject to surveillances administered by the Exchange and to cross-market surveillances administered by FINRA on behalf of the Exchange. Those surveillances are designed to detect violations of Exchange rules and applicable federal securities laws.¹⁰ The Exchange represents that those surveillances are adequate to reasonably monitor Exchange trading of IPO'd securities in all trading sessions and to reasonably deter and detect violations of Exchange rules and federal securities laws applicable to trading on the Exchange.¹¹ As such, the Exchange believes that its existing surveillance technologies and procedures, coupled with NYSE American's findings related to the IPOs reviewed as described herein, adequately address potential concerns regarding possible manipulation or price stability.

Implementation Date

The Exchange will announce the effective date of the proposed change by Notice distributed to all Members.¹² The Exchange will coordinate the effective date to coincide with the implementation of the proposed change on the other options exchanges.

2. Statutory Basis

The Exchange believes the proposed rule change is consistent with the Act and the rules and regulations thereunder applicable to the Exchange and, in particular, the requirements of section 6(b) of the Act.¹³ Specifically, the Exchange believes the proposed rule change is consistent with the section 6(b)(5)¹⁴ requirements that the rules of an exchange be designed to prevent fraudulent and manipulative acts and practices, to promote just and equitable

principles of trade, to foster cooperation and coordination with persons engaged in regulating, clearing, settling, processing information with respect to, and facilitating transactions in securities, to remove impediments to and perfect the mechanism of a free and open market and a national market system, and, in general, to protect investors and the public interest.

In particular, the Exchange believes the proposed change would facilitate options transactions and would remove impediments to and perfect the mechanism of a free and open market and a national market system, which would, in turn, protect investors and the public interest by providing an avenue for options on IPO'd securities to come to market earlier. The Exchange notes that the three-day look back period helps ensure that options on underlying securities may be listed and traded in a timely manner while also allowing time for OCC to accommodate the certification request. However, there are certain large IPOs that issue high-priced securities—well above the \$3.00 per share threshold—that would obviate the need for the three-day lookback period. As noted above, NYSE American has reviewed trading data for IPO'd securities dating back to 2017 and is unaware of an IPO'd security with a market capitalization of \$3 billion or more (based upon the offering price of its IPO) that subsequently would have failed to qualify for listing and trading as options under the three-day lookback requirement. The Exchange believes that the proposed amendment, which would be harmonized across options exchanges, would remove impediments to and perfect the mechanism of a free and open market and a national market system by providing an avenue for investors to hedge their interest in IPO investments in a shorter amount of time than what is currently permitted. The Exchange believes that options serve a valuable tool to the trading community and help markets function efficiently by mitigating risk. To that end, the Exchange believes that the absence of options in the early days after an IPO may heighten volatility to IPO'd securities.¹⁵

Further, as noted herein, the Exchange believes the proposed change would allow options on IPO'd securities to come to market sooner (*i.e.*, at least two business days post-IPO not inclusive of the day of the IPO) without sacrificing investor protection. The Exchange represents that trading in IPO'd securities—like all other securities traded on the Exchange—is

¹⁰ FINRA conducts cross-market surveillances on behalf of the Exchange pursuant to a regulatory services agreement. The Exchange is responsible for FINRA's performance under this regulatory services agreement.

¹¹ *See supra* note 8.

¹² The term "Member" means an individual or organization approved to exercise the trading rights associated with a Trading Permit. Members are deemed "members" under the Exchange Act. *See* Exchange Rule 100.

¹³ 15 U.S.C. 78f(b).

¹⁴ 15 U.S.C. 78f(b)(5).

¹⁵ *See supra* note 8.

subject to surveillances administered by the Exchange and to cross-market surveillances administered by FINRA on behalf of the Exchange. Those surveillances are designed to detect violations of Exchange rules and applicable federal securities laws.¹⁶ The Exchange represents that those surveillances are adequate to reasonably monitor Exchange trading of IPO'd securities in all trading sessions and to reasonably deter and detect violations of Exchange rules and federal securities laws applicable to trading on the Exchange, including wrongful efforts to manipulate the prices of those securities in order to bring them in compliance with the \$3.00/share threshold for the listing of options. As such, the Exchange believes that its existing surveillance technologies and procedures, coupled with NYSE American's findings related to the IPOs reviewed as described herein, would adequately address potential concerns regarding possible manipulation or price stability.

B. Self-Regulatory Organization's Statement on Burden on Competition

The Exchange does not believe that the proposed rule change will impose any burden on competition not necessary or appropriate in furtherance of the purposes of the Act. In this regard and as indicated above, the Exchange notes that the rule change is being proposed as a competitive response to a filing submitted by NYSE American that was recently approved by the Commission.¹⁷ The Exchange anticipates that the other options exchanges will adopt substantively similar proposals, such that there would be no burden on intermarket competition from the Exchange's proposal.

Accordingly, the proposed change is not meant to affect competition among the options exchanges. For these reasons, the Exchange believes that the proposed rule change reflects this competitive environment and does not impose any undue burden on intermarket competition.

C. Self-Regulatory Organization's Statement on Comments on the Proposed Rule Change Received From Members, Participants, or Others

Written comments were neither solicited nor received.

III. Date of Effectiveness of the Proposed Rule Change and Timing of Commission Action

Because the foregoing proposed rule change does not: (i) significantly affect the protection of investors or the public interest; (ii) impose any significant burden on competition; and (iii) become operative for 30 days after the date of the filing, or such shorter time as the Commission may designate if consistent with the protection of investors and the public interest, it has become effective pursuant to section 19(b)(3)(A) of the Act¹⁸ and Rule 19b-4(f)(6)¹⁹ thereunder.

A proposed rule change filed under Rule 19b-4(f)(6)²⁰ normally does not become operative prior to 30 days after the date of the filing. However, pursuant to Rule 19b-4(f)(6)(iii),²¹ the Commission may designate a shorter time if such action is consistent with the protection of investors and the public interest. The Exchange has asked the Commission to waive the 30-day operative delay so that the proposal may become operative immediately upon filing. The Exchange states that a waiver of the operative delay is consistent with the protection of investors and the public interest because it will ensure fair competition among the exchanges by allowing the Exchange to allow options on IPO'd securities to come to market sooner (*i.e.*, at least two business days post-IPO not inclusive of the day of the IPO) without sacrificing investor protection. The Commission believes that waiver of the 30-day operative delay is consistent with the protection of investors and the public interest because the proposed rule change does not raise any new or novel issues. Accordingly, the Commission hereby waives the 30-day operative delay and designates the proposed rule change as operative upon filing.²²

At any time within 60 days of the filing of the proposed rule change, the Commission summarily may temporarily suspend such rule change if it appears to the Commission that such

action is necessary or appropriate in the public interest, for the protection of investors, or otherwise in furtherance of the purposes of the Act. If the Commission takes such action, the Commission shall institute proceedings to determine whether the proposed rule should be approved or disapproved.

IV. Solicitation of Comments

Interested persons are invited to submit written data, views and arguments concerning the foregoing, including whether the proposed rule change is consistent with the Act. Comments may be submitted by any of the following methods:

Electronic Comments

- Use the Commission's internet comment form (<https://www.sec.gov/rules/sro.shtml>); or
- Send an email to rule-comments@sec.gov. Please include file number SR-MIAX-2023-32 on the subject line.

Paper Comments

- Send paper comments in triplicate to Secretary, Securities and Exchange Commission, 100 F Street NE, Washington, DC 20549-1090.
- All submissions should refer to file number SR-MIAX-2023-32. This file number should be included on the subject line if email is used. To help the Commission process and review your comments more efficiently, please use only one method. The Commission will post all comments on the Commission's internet website (<https://www.sec.gov/rules/sro.shtml>). Copies of the submission, all subsequent amendments, all written statements with respect to the proposed rule change that are filed with the Commission, and all written communications relating to the proposed rule change between the Commission and any person, other than those that may be withheld from the public in accordance with the provisions of 5 U.S.C. 552, will be available for website viewing and printing in the Commission's Public Reference Room, 100 F Street NE, Washington, DC 20549, on official business days between the hours of 10 a.m. and 3 p.m. Copies of the filing also will be available for inspection and copying at the principal office of the Exchange. Do not include personal identifiable information in submissions; you should submit only information that you wish to make available publicly. We may redact in part or withhold entirely from publication submitted material that is obscene or subject to copyright protection. All submissions should refer to file number

¹⁸ 15 U.S.C. 78s(b)(3)(A).

¹⁹ 17 CFR 240.19b-4(f)(6). In addition, Rule 19b-4(f)(6) requires a self-regulatory organization to give the Commission written notice of its intent to file the proposed rule change, along with a brief description and text of the proposed rule change, at least five business days prior to the date of filing of the proposed rule change, or such shorter time as designated by the Commission. The Exchange has satisfied this requirement.

²⁰ 17 CFR 240.19b-4(f)(6).

²¹ 17 CFR 240.19b-4(f)(6)(iii).

²² For purposes only of waiving the 30-day operative delay, the Commission has also considered the proposed rule's impact on efficiency, competition, and capital formation. See 15 U.S.C. 78c(f).

¹⁶ See *supra* note 10.

¹⁷ See *supra* note 3.

SR–MIAX–2023–32 and should be submitted on or before September 27, 2023.

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.²³

Sherry R. Haywood,

Assistant Secretary.

[FR Doc. 2023–19122 Filed 9–5–23; 8:45 am]

BILLING CODE 8011–01–P

SECURITIES AND EXCHANGE COMMISSION

[Release No. 34–98252; File No. SR–PEARL–2023–39]

Self-Regulatory Organizations; MIAx PEARL, LLC; Notice of Filing and Immediate Effectiveness of a Proposed Rule Change To Amend Exchange Rule 2614 of the MIAx Pearl Equities Rulebook

August 30, 2023.

Pursuant to section 19(b)(1) of the Securities Exchange Act of 1934 (“Act”),¹ and Rule 19b–4 thereunder,² notice is hereby given that on August 25, 2023, MIAx PEARL, LLC (“MIAx Pearl” or the “Exchange”) filed with the Securities and Exchange Commission (the “Commission”) the proposed rule change as described in Items I and II below, which Items have been prepared by the self-regulatory organization. The Commission is publishing this notice to solicit comments on the proposed rule change from interested persons.

I. Self-Regulatory Organization’s Statement of the Terms of Substance of the Proposed Rule Change

The Exchange proposes to amend the description of Limit Orders under Exchange Rule 2614(a)(1) to provide optional functionality that would cancel displayed Limit Orders³ on the Exchange’s equity trading platform (referred to herein as “MIAx Pearl Equities”) that do not establish a new National Best Bid or Offer (“NBBO”), as described below.

The text of the proposed rule change is available on the Exchange’s website at <http://www.miaxoptions.com/rule-filings/pearl> at MIAx Pearl’s principal office, and at the Commission’s Public Reference Room.

II. Self-Regulatory Organization’s Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

In its filing with the Commission, the Exchange included statements concerning the purpose of and basis for the proposed rule change and discussed any comments it received on the proposed rule change. The text of these statements may be examined at the places specified in Item IV below. The Exchange has prepared summaries, set forth in sections A, B, and C below, of the most significant aspects of such statements.

A. Self-Regulatory Organization’s Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

1. Purpose

The Exchange proposes to amend the description of Limit Orders under Exchange Rule 2614(a)(1) to provide optional functionality that cancel a displayed Limit Order to buy (sell) on MIAx Pearl Equities that does not establish a new NBB (NBO), as described herein. The Exchange intends to begin to notify Users⁴ whether their displayed Limit Order established a new NBBO upon entry or when modified via a Cancel/Replace message and such modification causes the order to lose time priority.⁵ This functionality is related to a separate proposal to adopt a fee program to be known as NBBO Setter Plus on September 1, 2023 that would provide an enhanced rebate to those displayed Limit Orders that establish the NBBO.⁶ Users that are

⁴ The term “User” means any Member or Sponsored Participant who is authorized to obtain access to the System pursuant to Exchange Rule 2602. See Exchange Rule 1901.

⁵ The Exchange intends to implement this proposed rule change and begin to notify Users whether their displayed Limit Order established a new NBBO upon entry or when modified via a Cancel/Replace message on August 31, 2023 (if waiver of the operative delay is granted) or on the effective date of this filing. See, e.g., MIAx Pearl Equities—Updated Interface Specifications Published for Future Enhancements—New NBBO Setter Flag and Cancellation Feature if Order is Not Setting the NBBO, dated July 26, 2023, available at <https://www.miaxglobal.com/alert/2023/07/26/miax-pearl-equities-updated-interface-specifications-published-future>, and MIAx Pearl Equities—Previously Announced New NBBO Setter Flag and Cancellation Feature will be available on Thursday, August 31, 2023; Corresponding Updated Risk Protections Guide and Order Type Combinations Guide Now on website, dated August 11, 2023, available at <https://www.miaxglobal.com/alert/2023/08/11/miax-pearl-equities-previously-announced-new-nbbo-setter-flag-and>. This functionality is limited to displayed Limit Orders because that is the only order type offered by the Exchange that may establish a new NBBO.

⁶ The Exchange intends to submit a separate filing with the Commission for immediate effectiveness

notified that their displayed Limit Order or modification of such order did not establish a new NBBO may then submit a new displayed Limit Order in an attempt to then establish a new NBBO and qualify for the upcoming NBBO Setter Plus program.

In connection with the above initiatives, Users requested the ability to instruct the Exchange to cancel their displayed Limit Order where it does not establish a new NBBO. Therefore, the Exchange proposes to allow Users to instruct the Exchange, on an order-by-order basis, to cancel their displayed Limit Order to buy (sell) when that order does not establish a new NBB (NBO) upon entry or when modified via a Cancel/Replace message in accordance with Exchange Rule 2614(e) and such modification results in the order losing time priority in accordance with Exchange Rule 2616(a)(5). The proposed functionality would be set forth under Exchange Rule 2614(a)(1)(j). For the avoidance of doubt, the default behavior would be for the Exchange to not cancel the order under this proposal, unless otherwise instructed to do so upon entry on an order-by-order basis.

The following example illustrates the proposed functionality upon entry. Assume the NBBO is \$10.00 by \$10.05. A User submits a displayed Limit Order to buy with a limit price of \$10.01 and instructs the Exchange to cancel such order should it not establish a new NBB. The order does establish a new NBB upon entry and is posted to the MIAx Pearl Equities Book,⁷ resulting in a new NBBO of \$10.01 by \$10.05. However, such order would have been cancelled by the Exchange if its limit price was \$10.00 or lower.

The Exchange also proposes to allow Users to instruct the Exchange to cancel a displayed Limit Order when that order does not establish a new NBB (NBO) after being modified via a Cancel/Replace message in accordance with Exchange Rule 2614(e) and such modification results in the order losing time priority in accordance with Exchange Rule 2616(a)(5). In sum, Exchange Rule 2614(e) provides that

pursuant to section 19(b)(1) of the Exchange Act and Rule 19b–4(f)(2) thereunder a proposal to establish the NBBO Setter Plus Program. The Exchange notes that other exchanges have adopted similar programs. See Securities Exchange Act Release Nos. 95124 (June 17, 2022) 87 FR 37894 (June 24, 2022) (SR–CboeBZX–2022–034); 14923 (March 10, 2022) 87 FR 14923 (March 16, 2022) (SR–MEMX–2022–01); 68209 (November 9, 2012) 77 FR 69519 (November 19, 2012) (SR–NASDAQ–2012–126); and 89754 (September 2, 2020), 85 FR 55550 (September 8, 2020) (SR–NYSE–2020–71).

⁷ The term “MIAx Pearl Equities Book” means the electronic book of orders in equity securities maintained by the System. See Exchange Rule 1901.

²³ 17 CFR 200.30–3(a)(12).

¹ 15 U.S.C. 78s(b)(1).

² 17 CFR 240.19b–4.

³ See Exchange Rule 2614(a)(1) for a description of Limit Orders.

only the price, sell long, sell short, or short exempt indicator, and size terms of the order may be changed by a Cancel/Replace Message. Exchange Rule 2616(a)(5) provides that in the event an order has been modified via a Cancel/Replace message in accordance with Exchange Rule 2614(e) above, such order only retains its timestamp if such modification involves a decrease in the size of the order, a change to the Max Floor of an order with a Reserve Quantity, or when a Short Sale Period, as defined in Exchange Rule 2614(g)(3)(A), is not in effect, a change in position from (A) sell to sell short; (B) sell to sell short exempt; (C) sell short to sell; (D) sell short to sell short exempt; (E) sell short exempt to sell; and (F) sell short exempt to sell short.⁸ Any other modification to an order, including an increase in the size of the order and/or price change, will result in such order losing time priority as compared to other orders in the MIAX Pearl Equities Book and the timestamp for such order being revised to reflect the time of the modification.

The following illustrates how the order from the above example would be handled if later modified via a Cancel/Replace message that results in a loss in time priority. As illustrated in the above example, the displayed Limit Order to buy established a new NBBO of \$10.01 by \$10.05 upon entry and now continues to rest on the MIAX Pearl Equities Book at \$10.01. Assume the away BBO is \$10.00 by \$10.05 and a User submit a Cancel/Replace message to change the order's limit price to \$9.99. This would result in the away BBO of \$10.00 by \$10.05 becoming the new NBBO. The displayed Limit Order resting on the MIAX Pearl Equities Book would, therefore, be cancelled because its price is inferior to the new NBB of \$10.00 and would no longer set the NBB.⁹

Users would need to instruct the Exchange upon entry on an order-by-order basis to cancel their order as proposed herein. The proposed functionality would be entirely optional and, absent an instruction from the User on entry to the contrary, a displayed Limit Order that does not establish a new NBBO as described above would not be cancelled by the Exchange. Users may choose to use the proposed functionality based on their own business needs and trading behavior.

All Users would be notified that their displayed Limit Order or modification to such order did not establish a new NBBO, regardless of whether a User instructs the Exchange to cancel a displayed Limit Order when it does not establish a new NBBO as described herein. Users that do not inform the Exchange upon entry to cancel such order may choose to cancel that order on their own and submit a new order in an attempt to then establish a new NBBO and qualify for the upcoming NBBO Setter Plus program.

2. Statutory Basis

The Exchange believes that its proposal is consistent with the requirements of the Act and the rules and regulations thereunder that are applicable to a national securities exchange, and, in particular, with the requirements of section 6(b) of the Act.¹⁰ Specifically, the proposal is consistent with section 6(b)(5) of the Act¹¹ because it would promote just and equitable principles of trade, remove impediments to, and perfect the mechanism of, a free and open market and a national market system, and, in general, protect investors and the public interest because it would provide Users optional functionality to assist them in managing their order flow and attempts to establish a new NBBO. The proposal further remove impediments to, and perfect the mechanism of, a free and open market and a national market system because Users may instruct the Exchange upon entry to cancel their displayed Limit Order or modification to such order that did not establish a new NBBO so that they may then submit a new order to again attempt to establish a new NBBO and qualify for the upcoming NBBO Setter Plus program. The proposal would also promote just and equitable principles of trade because it would facilitate a User's ability to enter orders that establish a new NBBO by enabling them to enter a new order in a timelier manner and not submit a separate cancellation message prior to entering the new order. The proposed optional functionality should encourage more aggressively priced displayed liquidity on the Exchange, thereby, improving price discovery and potentially attracting additional contra-side order flow.

As stated above, the proposed functionality would be entirely optional and, absent an instruction from the User to the contrary, a displayed Limit Order that does not establish a new NBBO as described above would not be cancelled

by the Exchange. Users may choose to not use the proposed functionality and make their own decision whether to cancel the order on their own based on their business needs and trading behavior.

Lastly, the exchange notes that at least one other exchange that currently offers a similar NBBO Setter Plus program also provides for the ability to instruct the exchange to cancel an order if it does not establish the NBBO.¹²

B. Self-Regulatory Organization's Statement on Burden on Competition

The Exchange does not believe that the proposed rule change would result in any burden on competition that is not necessary or appropriate in furtherance of the purposes of the Act, as amended. The proposed rule change would not have any impact on intramarket competition because it would be available to all Users and Users may choose to use the proposed functionality based on their own business needs or trading behavior. The proposal may enhance intermarket competition because it would allow the Exchange to better compete with at least one other exchange that currently offers the ability to instruct the exchange to cancel an order if it does not establish the NBBO as part of its own NBBO Setter Plus program.¹³ The proposal may also improve the Exchange's competitive position by encouraging the entry of displayed orders priced more aggressively than the NBBO, improving the Exchange's market quality, and attracting additional liquidity. The proposal responds to the current competitive environment where order flow providers have a choice of where to direct liquidity-providing orders by providing optional functionality to facilitate the entry of aggressively priced displayed liquidity on the Exchange.

C. Self-Regulatory Organization's Statement on Comments on the Proposed Rule Change Received From Members, Participants, or Others

Written comments were neither solicited nor received.

⁸ See, e.g., Securities Exchange Act Release No. 93506 (November 2, 2021), 86 FR 61796 (November 8, 2021) (SR-PEARL-2021-35).

⁹ However, such order would not have been cancelled by the Exchange if its new limit price was \$10.02.

¹⁰ 15 U.S.C. 78f(b).

¹¹ 15 U.S.C. 78f(b)(5).

¹² See reason code 240 on page 110 of the NYSE Pillar Gateway Binary Protocol Specifications, dated June 27, 2023, available at [NYSE_Pillar_Gateway_Binary_Protocol_Specification.pdf](#). See also Securities Exchange Act Release No. 89754 (September 2, 2020), 85 FR 55550 (September 8, 2020) (SR-NYSE-2020-71). Functionality to cancel the order if it does not set the NBBO was not included in SR-NYSE-2020-71.

¹³ *Id.*

III. Date of Effectiveness of the Proposed Rule Change and Timing for Commission Action

Because the foregoing proposed rule change does not: (i) significantly affect the protection of investors or the public interest; (ii) impose any significant burden on competition; and (iii) become operative for 30 days from the date on which it was filed, or such shorter time as the Commission may designate, it has become effective pursuant to section 19(b)(3)(A)(iii) of the Act¹⁴ and Rule 19b-4(f)(6) thereunder.¹⁵

A proposed rule change filed under Rule 19b-4(f)(6)¹⁶ normally does not become operative prior to 30 days after the date of the filing. However, Rule 19b-4(f)(6)(iii)¹⁷ permits the Commission to designate a shorter time if such action is consistent with the protection of investors and the public interest. The Exchange has asked the Commission to waive the 30-day operative delay so that the proposal may become operative immediately upon filing. The Exchange states that this proposal provides Users optional functionality to manage their order flow and is designed to facilitate their ability to enter aggressively priced displayed Limit Orders that establish a new NBBO. The Exchange represents that a waiver of the operative delay would permit the Exchange to offer the proposed cancellation and connected NBBO notification functionality by September 1, 2023, the date that it intends to begin to offer an NBBO Setter Plus program and allow it to better compete with other exchanges that offer similar programs and functionality. The Commission believes that waiver of the 30-day operative delay is consistent with the protection of investors and the public interest because the proposed functionality is optional and could encourage more aggressively priced displayed liquidity on the Exchange. Accordingly, the Commission hereby waives the 30-day operative delay and designates the proposed rule change as operative upon filing.¹⁸

¹⁴ 15 U.S.C. 78s(b)(3)(A)(iii).

¹⁵ 17 CFR 240.19b-4(f)(6). In addition, Rule 19b-4(f)(6) requires the Exchange to give the Commission written notice of its intent to file the proposed rule change, along with a brief description and text of the proposed rule change, at least five business days prior to the date of filing of the proposed rule change, or such shorter time as designated by the Commission. The Exchange has satisfied this requirement.

¹⁶ *Id.*

¹⁷ 17 CFR 240.19b-4(f)(6)(iii).

¹⁸ For purposes only of waiving the 30-day operative delay, the Commission has also considered the proposed rule's impact on efficiency, competition, and capital formation. See 15 U.S.C. 78c(f).

At any time within 60 days of the filing of the proposed rule change, the Commission summarily may temporarily suspend such rule change if it appears to the Commission that such action is necessary or appropriate in the public interest, for the protection of investors, or otherwise in furtherance of the purposes of the Act. If the Commission takes such action, the Commission shall institute proceedings to determine whether the proposed rule should be approved or disapproved.

IV. Solicitation of Comments

Interested persons are invited to submit written data, views, and arguments concerning the foregoing, including whether the proposed rule change is consistent with the Act. Comments may be submitted by any of the following methods:

Electronic Comments

- Use the Commission's internet comment form (<https://www.sec.gov/rules/sro.shtml>); or
- Send an email to rule-comments@sec.gov. Please include file number SR-PEARL-2023-39 on the subject line.

Paper Comments

- Send paper comments in triplicate to Secretary, Securities and Exchange Commission, 100 F Street NE, Washington, DC 20549-1090.
- All submissions should refer to file number SR-PEARL-2023-39. This file number should be included on the subject line if email is used. To help the Commission process and review your comments more efficiently, please use only one method. The Commission will post all comments on the Commission's internet website (<https://www.sec.gov/rules/sro.shtml>). Copies of the submission, all subsequent amendments, all written statements with respect to the proposed rule change that are filed with the Commission, and all written communications relating to the proposed rule change between the Commission and any person, other than those that may be withheld from the public in accordance with the provisions of 5 U.S.C. 552, will be available for website viewing and printing in the Commission's Public Reference Room, 100 F Street NE, Washington, DC 20549 on official business days between the hours of 10 a.m. and 3 p.m. Copies of the filing also will be available for inspection and copying at the principal office of the Exchange. Do not include personal identifiable information in submissions; you should submit only information that you wish to make available

publicly. We may redact in part or withhold entirely from publication submitted material that is obscene or subject to copyright protection. All submissions should refer to file number SR-PEARL-2023-39 and should be submitted on or before September 27, 2023.

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.¹⁹

Sherry R. Haywood,

Assistant Secretary.

[FR Doc. 2023-19126 Filed 9-5-23; 8:45 am]

BILLING CODE 8011-01-P

SECURITIES AND EXCHANGE COMMISSION

[Release No. 34-98247; File No. SR-NYSEAMER-2023-42]

Self-Regulatory Organizations; NYSE American LLC; Notice of Filing and Immediate Effectiveness of Proposed Change To Modify Rule 900.3NYP

August 30, 2023.

Pursuant to section 19(b)(1)¹ of the Securities Exchange Act of 1934 ("Act")² and Rule 19b-4 thereunder,³ notice is hereby given that, on August 23, 2023, NYSE American LLC ("NYSE American" or the "Exchange") filed with the Securities and Exchange Commission (the "Commission") the proposed rule change as described in Items I, II, and III below, which Items have been prepared by the self-regulatory organization. The Commission is publishing this notice to solicit comments on the proposed rule change from interested persons.

I. Self-Regulatory Organization's Statement of the Terms of Substance of the Proposed Rule Change

The Exchange proposes to modify Rule 900.3NYP (Orders and Modifiers) regarding the handling of certain Market Orders subject to Trading Collars and conforming changes to Rule 952NYP (Auction Process). The proposed rule change is available on the Exchange's website at www.nyse.com, at the principal office of the Exchange, and at the Commission's Public Reference Room.

¹⁹ 17 CFR 200.30-3(a)(12).

¹ 15 U.S.C. 78s(b)(1).

² 15 U.S.C. 78a.

³ 17 CFR 240.19b-4.

II. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

In its filing with the Commission, the self-regulatory organization included statements concerning the purpose of, and basis for, the proposed rule change and discussed any comments it received on the proposed rule change. The text of those statements may be examined at the places specified in Item IV below. The Exchange has prepared summaries, set forth in sections A, B, and C below, of the most significant parts of such statements.

A. Self-Regulatory Organization's Statement of the Purpose of, and the Statutory Basis for, the Proposed Rule Change

1. Purpose

The Exchange proposes to modify Rule 900.3NYP (Orders and Modifiers) regarding the handling of certain Market Orders subject to Trading Collars and conforming changes to Rule 952NYP (Auction Process).⁴ The Exchange notes that an identical rule change was recently adopted on its affiliated exchange, NYSE Arca, Inc. ("NYSE Arca") and therefore this proposal raises no new or novel issues not previously considered by the Commission.⁵

The Exchange employs Trading Collar functionality that is designed to provide ATP Holders price protection for Market Orders and Limit Orders traded on the Exchange.⁶ In particular, the Trading Collar applies a static ceiling price (for a buy order) or floor price (for a sell order) at which such order may be traded or routed that is determined at the time of entry (or after a series opens or reopens) and which is applicable until the order is traded or cancelled.⁷ As described below, the Exchange

proposes to modify the application of Trading Collars to Market Orders.

Currently, Rule 900.3NYP(a)(4)(D) describes how the Trading Collar is applied and provides that if an order to buy (sell) would trade or route above (below) the Trading Collar or would have its working price repriced to a Trading Collar that is below (above) its limit price, the order will be added to the Consolidated Book at the Trading Collar for 500 milliseconds and if not traded within that period, will be cancelled (each a "collared" order).⁸ Further, once the 500-millisecond timer begins for a collared order (the "collar timer"), such order will be cancelled at the end of the timer even if it repriced or was routed to an Away Market during that period, in which case any portion of the collared order that is returned unexecuted is cancelled.

Pursuant to the proposed rule change, Market Orders that are collared would no longer be held for the duration of the collar time (*i.e.*, for 500 milliseconds). Instead, as proposed, if a Market Order to buy (sell) would trade or route above (below) the Trading Collar, such Market Orders would be cancelled.⁹ Thus, a collared Market Order that can trade within the Trading Collar will trade on the Exchange or route. Collared Market Orders will no longer be held and displayed on the Consolidated Book for the duration of the collar timer.

The Exchange is not proposing to modify the handling of Limit Orders and such collared orders would continue to be subject to the above-described handling, per Rule 900.3NYP(a)(4)(D)(i).¹⁰ The current rule treats collared Market Orders and collared Limit Orders the same whereas the Exchange proposes to alter only the handling of collared Market Orders. Unlike Market Orders, Limit Orders include a specific price at which an ATP Holder is willing to trade (*i.e.*, the limit price). Market Orders do not include a price and tend to be utilized to access liquidity. As such, the Exchange believes that the proposal to cancel back those Market Orders that

have been collared would benefit ATP Holders because it would enable the order sender to reevaluate, on a timelier basis how best to handle this trading interest.

The Exchange notes that it proposes to make this change in response to ATP Holders' preference to have Market Orders for which they are agent immediately cancel back for handling—rather than have such collared Market Orders first post at aggressive prices for 500 milliseconds.

Conforming Changes

Consistent with the proposed change to the handling of collared Market Orders—*i.e.*, that such orders will not be held and displayed on the Consolidated Book for the duration of the collar timer, the Exchange proposes the following conforming changes.

- First, the Exchange proposes to modify Rule 900.3NYP(a)(1)(A)(ii), which provides, in relevant part, that "[a] Market Order to sell will be cancelled if it was assigned a Trading Collar, routed, and when it returns unexecuted, it has no resting portion to join and there is no NBB, regardless of the price of the NBO." The Exchange proposes to modify this provision to instead provide that "[a] Market Order to sell that was assigned a Trading Collar, routed, and returned unexecuted, will be cancelled if there is no NBB, regardless of the price of the NBO."¹¹

- Next, the Exchange proposes to modify Rule 900.3NYP(a)(1)(B), which provides, in relevant part, that "[a]fter trading or routing, or both, the Market Order will be displayed at the Trading Collar, subject to paragraph (a)(1)(C)," which provision provides that a Market Order will be cancelled before being displayed if there are no remaining contra-side Market Maker quotes on the Exchange or contra-side ABBO.¹² Proposed Rule 900.3NYP(a)(1)(B) would provide that "[a]fter trading or routing, or both, the Market Order will be cancelled."

- In addition, the Exchange also proposes to delete as inapplicable Rule 900.3NYP(a)(1)(C).¹³ The Exchange proposes to modify Rule

⁴ The Exchange notes that this proposed change modifies a Pillar rule (*i.e.*, with a "P" modifier) that has not yet been implemented. The Exchange anticipates migrating to its Pillar trading platform beginning on October 23, 2023. As is the case with all Pillar rules, this proposed rule change (as well as the entire Rule 900.3NYP) will not be implemented until all other Pillar-related rule filings are approved or operative, as applicable, and the Exchange announces the migration of underlying symbols to Pillar by Trader Update.

⁵ See Securities Exchange Act Release No. 98113 (August 11, 2023), 88 FR 55791 (August 16, 2023) (SR-NYSEARCA-2023-54) (immediately effective rule change to allow market participants to reduce the time at which Market Orders are "collared" from 500 milliseconds to zero, per Rule 6.62P-O).

⁶ See Rules 900.3NYP(a)(1) (defining Market Order), (a)(2) (defining Limit Order).

⁷ See Rule 900.3NYP(a)(4)(A)–(C) (describing Trading Collar functionality, including how such Collars are assigned and calculated).

⁸ See Rule 964NYP(a)(3) (providing that the "working price" of an order or quote means the price at which it is eligible to trade at any given time, which may be different from the limit price or display price of the order or quote). The "display price" means the price at which an order or quote ranked Priority 2—Display Orders or Market Order is displayed, which may be different from the limit price or working price of the order. See Rule 964NYP(a)(1).

⁹ See proposed Rule 900.3NYP(a)(4)(D)(i). The Exchange notes that once an order has been cancelled, the Exchange will likewise cancel any unexecuted portion of the cancelled order that returns to the Exchange after having been routed away.

¹⁰ See proposed Rule 900.3NYP(a)(4)(D)(i).

¹¹ See proposed Rule 900.3NYP(a)(1)(A)(ii). See also Rule 900.3NYP(a)(1)(A)(i)–(iv) (setting forth pricing validations that a Market Order that arrives during continuous trading or that was routed, returns unexecuted, and has no resting quantity to join must pass to prevent being rejected or cancelled, as applicable).

¹² See Rule 900.3NYP(a)(1)(C).

¹³ See Rule 900.3NYP(a)(1)(C) (providing that a Market Order will be cancelled before being displayed if there are no remaining contra-side Market Maker quotes on the Exchange or contra-side ABBO).

952NYP(f)(3)(A)(vi), which cross references the to-be-deleted provision, and to provide that “[u]nexecuted Market Orders will be cancelled.”¹⁴

• Finally, the Exchange also proposes to delete as inapplicable Rule 900.3NYP(a)(1)(D).¹⁵

The Exchange believes that the proposed functionality would provide greater determinism for Market Orders that have been collared, which would provide ATP Holders that send Market Orders as agent greater control over, and more certainty regarding, the Exchange’s handling of such orders.

Implementation

This proposed change modifies a Pillar rule (*i.e.*, with a “P” modifier). As is the case with all Pillar rules, this proposed rule change (as well as the entire Rule 900.3NYP) will not be implemented until all other Pillar-related rule filings are approved or operative, as applicable, and the Exchange announces the migration of underlying symbols to Pillar by Trader Update.

2. Statutory Basis

The proposed rule change is consistent with section 6(b) of the Securities Exchange Act of 1934 (the “Act”),¹⁶ in general, and furthers the objectives of section 6(b)(5),¹⁷ in particular, because it is designed to prevent fraudulent and manipulative acts and practices, to promote just and equitable principles of trade, to foster cooperation and coordination with persons engaged in facilitating transactions in securities, to remove impediments to, and perfect the mechanism of, a free and open market and a national market system and, in general, to protect investors and the public interest.

The Exchange believes the proposed change to modify the handling of collared Market Orders, which is being made in response to ATP Holders’ preference to have Market Orders for which they are agent immediately cancel back for handling—rather than have such collared Market Orders first

post at aggressive prices for 500 milliseconds, would remove impediments to and perfect the mechanism of a free and open market and a national market system because the proposed handling would refine the Trading Collar functionality in a manner that would enable ATP Holders to have more certainty regarding, and more control over, the handling of their Market Orders.¹⁸

The proposed conforming changes would remove impediments to, and perfect the mechanism of, a free and open market and a national market system and, in general, would protect investors and the public interest because such changes would add clarity, transparency, and internal consistency to Exchange rules.

B. Self-Regulatory Organization’s Statement on Burden on Competition

The Exchange does not believe that the proposed rule change will impose any burden on competition that is not necessary or appropriate in furtherance of the purposes of the Act. The Exchange is proposing a market enhancement that would provide ATP Holders with greater control over, and more certainty regarding, collared Market Orders that such ATP Holders have submitted as agent. The proposal would apply to all similarly-situated ATP Holders and would not impose a competitive burden on any participant. The Exchange does not believe that the proposed change to the Trading Collar functionality would impose a burden on competing options exchanges. Rather, the availability of the modified Trading Collar functionality may foster more competition. Specifically, the Exchange notes that it operates in a highly competitive market in which market participants can readily favor competing venues. When an exchange offers enhanced functionality that distinguishes it from the competition and participants find it useful, it has been the Exchange’s experience that competing exchanges will move to adopt similar functionality. Thus, the Exchange believes that this type of competition amongst exchanges is beneficial to the marketplace as it can result in enhanced processes, functionality, and technologies.

¹⁸ As discussed *supra*, the proposal would alter the handling of collared Market Orders (but not collared Limit Orders) because Market Orders (unlike Limit Orders) do not include a price and tend to be utilized to access liquidity. Thus, the proposal to cancel back collared Market Orders would benefit ATP Holders because it would enable the order sender to reevaluate, on a timelier basis how best to handle this trading interest.

C. Self-Regulatory Organization’s Statement on Comments on the Proposed Rule Change Received From Members, Participants, or Others

No written comments were solicited or received with respect to the proposed rule change.

III. Date of Effectiveness of the Proposed Rule Change and Timing for Commission Action

The Exchange has filed the proposed rule change pursuant to section 19(b)(3)(A)(iii) of the Act¹⁹ and Rule 19b-4(f)(6) thereunder.²⁰ Because the proposed rule change does not: (i) significantly affect the protection of investors or the public interest; (ii) impose any significant burden on competition; and (iii) become operative prior to 30 days from the date on which it was filed, or such shorter time as the Commission may designate, if consistent with the protection of investors and the public interest, the proposed rule change has become effective pursuant to section 19(b)(3)(A) of the Act and Rule 19b-4(f)(6)(iii) thereunder.²¹

At any time within 60 days of the filing of such proposed rule change, the Commission summarily may temporarily suspend such rule change if it appears to the Commission that such action is necessary or appropriate in the public interest, for the protection of investors, or otherwise in furtherance of the purposes of the Act. If the Commission takes such action, the Commission shall institute proceedings under section 19(b)(2)(B)²² of the Act to determine whether the proposed rule change should be approved or disapproved.

IV. Solicitation of Comments

Interested persons are invited to submit written data, views and arguments concerning the foregoing, including whether the proposed rule change is consistent with the Act. Comments may be submitted by any of the following methods:

Electronic Comments

- Use the Commission’s internet comment form (<https://www.sec.gov/rules/sro.shtml>); or

¹⁹ 15 U.S.C. 78s(b)(3)(A)(iii).

²⁰ 17 CFR 240.19b-4(f)(6).

²¹ 17 CFR 240.19b-4(f)(6)(iii). In addition, Rule 19b-4(f)(6) requires a self-regulatory organization to give the Commission written notice of its intent to file the proposed rule change at least five business days prior to the date of filing of the proposed rule change, or such shorter time as designated by the Commission. The Exchange has satisfied this requirement.

²² 15 U.S.C. 78s(b)(2)(B).

¹⁴ Compare proposed Rule 952NYP(f)(3)(A)(vi) with Rule 952NYP(f)(3)(A)(vi) (providing that Market Orders received during a pre-open state will be subject to the validation specified in Rule 900.3NYP(a)(1)(C)).

¹⁵ See Rule 900.3NYP(a)(1)(D) (providing that after being displayed at its Trading Collar, a Market Order will be cancelled if there ceases to be a contra-side NBBO). The Exchange proposes the non-substantive change to re-number current paragraph (a)(1)(E) of the Rule to new paragraph (a)(1)(C) to account for the aforementioned deletions.

¹⁶ 15 U.S.C. 78f(b).

¹⁷ 15 U.S.C. 78f(b)(5).

• Send an email to rule-comments@sec.gov. Please include file number SR-NYSEAMER-2023-42 on the subject line.

Paper Comments

• Send paper comments in triplicate to Secretary, Securities and Exchange Commission, 100 F Street NE, Washington, DC 20549-1090.

All submissions should refer to file number SR-NYSEAMER-2023-42. This file number should be included on the subject line if email is used. To help the Commission process and review your comments more efficiently, please use only one method. The Commission will post all comments on the Commission's internet website (<https://www.sec.gov/rules/sro.shtml>). Copies of the submission, all subsequent amendments, all written statements with respect to the proposed rule change that are filed with the Commission, and all written communications relating to the proposed rule change between the Commission and any person, other than those that may be withheld from the public in accordance with the provisions of 5 U.S.C. 552, will be available for website viewing and printing in the Commission's Public Reference Room, 100 F Street NE, Washington, DC 20549, on official business days between the hours of 10 a.m. and 3 p.m. Copies of the filing also will be available for inspection and copying at the principal office of the Exchange. Do not include personal identifiable information in submissions; you should submit only information that you wish to make available publicly. We may redact in part or withhold entirely from publication submitted material that is obscene or subject to copyright protection. All submissions should refer to file number SR-NYSEAMER-2023-42 and should be submitted on or before September 27, 2023.

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.²³

Sherry R. Haywood,

Assistant Secretary.

[FR Doc. 2023-19127 Filed 9-5-23; 8:45 am]

BILLING CODE 8011-01-P

SMALL BUSINESS ADMINISTRATION

Data Collection Available for Public Comments

ACTION: 60-Day notice and request for comments.

SUMMARY: The Small Business Administration (SBA) intends to request approval, from the Office of Management and Budget (OMB) for the collection of information described below. The Paperwork Reduction Act (PRA) requires federal agencies to publish a notice in the **Federal Register** concerning each proposed collection of information before submission to OMB, and to allow 60 days for public comment in response to the notice. This notice complies with that requirement.

DATES: Submit comments on or before November 6, 2023.

ADDRESSES: Send all comments to Marybeth Kerrigan, Financial Analyst, Secondary Markets Division, Office of Financial Assistance, Small Business Administration, Washington, DC 20416.

FOR FURTHER INFORMATION CONTACT: Marybeth Kerrigan, Financial Analyst, Secondary Markets Division, Office of Financial Assistance, mary.kerrigan@sba.gov 202-205-7552, or Curtis B. Rich, Agency Clearance Officer, 202-205-7030, curtis.rich@sba.gov;

SUPPLEMENTARY INFORMATION: Small Business Administration collects this information from lenders who participate in the secondary market program. The information is used to facilitate and administer secondary market transactions in accordance with 15 U.S.C. 634(f)3 and to monitor the program for compliance with 15 U.S.C. 639(h).

Solicitation of Public Comments

SBA is removing duplicate sale data, reformatting sale data for ease of use, and amending sections for clarity. SBA is requesting comments on (a) Whether the collection of information is necessary for the agency to properly perform its functions; (b) whether the burden estimates are accurate; (c) whether there are ways to minimize the burden, including through the use of automated techniques or other forms of information technology; and (d) whether there are ways to enhance the quality, utility, and clarity of the information.

Summary of Information Collection

OMB Control Number: 3245-0185.

Title: Secondary Participation

Guaranty Agreement.

Description of Respondents: Small Business Lenders.

Form Number: SBA Forms 1502, 1086.

Total Estimated Annual Responses: 4,000.

Total Estimated Annual Hour Burden: 60,000.

Curtis Rich,

Agency Clearance Officer.

[FR Doc. 2023-19198 Filed 9-5-23; 8:45 am]

BILLING CODE 8026-09-P

SURFACE TRANSPORTATION BOARD

[Docket No. EP 552 (Sub-No. 27)]

Railroad Revenue Adequacy—2022 Determination

AGENCY: Surface Transportation Board.

ACTION: Notice of decision.

SUMMARY: On September 5, 2023, the Board served a decision announcing the 2022 revenue adequacy determinations for the nation's Class I railroads. Five Class I railroads (BNSF Railway Company, CSX Transportation, Inc., Norfolk Southern Combined Railroad Subsidiaries, Soo Line Corporation, and Union Pacific Railroad Company) were found to be revenue adequate.

DATES: This decision is effective on September 5, 2023.

FOR FURTHER INFORMATION CONTACT: Pedro Ramirez, (202) 245-0333. If you require an accommodation under the Americans with Disabilities Act, please call (202) 245-0245.

SUPPLEMENTARY INFORMATION: Under 49 U.S.C. 10704(a)(3), the Board is required to make an annual determination of railroad revenue adequacy. A railroad is considered revenue adequate under 49 U.S.C. 10704(a) if it achieves a rate of return on net investment (ROI) equal to at least the current cost of capital for the railroad industry. For 2022, this number was determined to be 10.58% in *Railroad Cost of Capital—2022*, EP 558 (Sub-No. 26) (STB served Aug. 3, 2023). The Board then applied this revenue adequacy standard to each Class I railroad. Five Class I carriers (BNSF Railway Company, CSX Transportation, Inc., Norfolk Southern Combined Railroad Subsidiaries, Soo Line Corporation, and Union Pacific Railroad Company) were found to be revenue adequate for 2022.

The decision in this proceeding is posted at www.stb.gov.

Decided: August 30, 2023.

²³ 17 CFR 200.30-3(a)(12).

By the Board, Board Members Fuchs, Hedlund, Oberman, Primus, and Schultz.
Kenyatta Clay,
Clearance Clerk.

[FR Doc. 2023–19173 Filed 9–5–23; 8:45 am]

BILLING CODE 4915–01–P

DEPARTMENT OF TRANSPORTATION

Federal Highway Administration

[Docket No. FHWA–2023–0026]

Agency Information Collection Activities: Request for Comments for a New Information Collection

AGENCY: Federal Highway Administration (FHWA), DOT.

ACTION: Notice and request for comments.

SUMMARY: The FHWA invites public comments about our intention to request the Office of Management and Budget's (OMB) approval for an information collection, which is summarized below under **SUPPLEMENTARY INFORMATION**. We are required to publish this notice in the **Federal Register** by the Paperwork Reduction Act of 1995.

DATES: Please submit comments by November 6, 2023.

ADDRESSES: You may submit comments identified by DOT Docket ID Number 0026 by any of the following methods:

Website: For access to the docket to read background documents or comments received go to the Federal eRulemaking Portal: Go to <http://www.regulations.gov>.

Follow the online instructions for submitting comments.

Fax: 1–202–493–2251.

Mail: Docket Management Facility, U.S. Department of Transportation, West Building Ground Floor, Room W12–140, 1200 New Jersey Avenue SE., Washington, DC 20590–0001.

Hand Delivery or Courier: U.S. Department of Transportation, West Building Ground Floor, Room W12–140, 1200 New Jersey Avenue SE, Washington, DC 20590, between 9 a.m. and 5 p.m. ET, Monday through Friday, except Federal holidays.

FOR FURTHER INFORMATION CONTACT: Spencer Stevens 202–366–6221, Office of Planning, Environment and Realty Federal Highway Administration, Department of Transportation, 1200 New Jersey Avenue SE, Washington, DC 20590.

SUPPLEMENTARY INFORMATION:

Title: Planning and Research Program Administration.

Background: Planning and Research Program Administration is covered

under 23 CFR part 420. 23 CFR part 420 regulation includes administrative requirements and procedures for PL funds (23 U.S.C. 104(b)(5)) provided for Metropolitan Planning Organizations (MPOs) to carry out metropolitan planning, and SPR funds (provided under the provisions of 23 U.S.C. 505) for State Departments of Transportation (State DOTs) to implement statewide transportation planning and research, development and technology (RD&T) work activities. Also, at a State DOT's option, other Title 23 funds as identified in the definition of FHWA planning and research funds in 23 U.S.C. 505 and 23 CFR 420.103 may be used to perform planning activities. Different from this request, the information collection requirement for work performed by MPOs is a joint Federal Highway Administration/Federal Transit Administration requirement, and is covered under OMB Control Number 2132–0529.

In accordance with government-wide grant management procedures, a grant application must be submitted for these funds. In addition, recipients must submit periodic progress and financial reports. The content and frequency of submission of progress and financial reports specified in 23 CFR part 420 is as specified in 2 CFR 200 grant management regulations. With the implementation of 2 CFR 200, the focus will be more on using data to determine the grant's achievement outcomes and less on accountability compliance. FHWA and the State DOTs are called upon to identify clear performance goals, indicators and milestones for the grants.

This information collection supports the DOT's Strategic Objective of "Organizational Excellence" by providing an ongoing mechanism to review applications and approve Federal grants to States for their transportation planning and research, development and technology work programs.

Respondents: Each State, the District of Columbia and the Commonwealth of Puerto Rico are required to provide information. The annual number of burden hours (professional and clerical staff) per respondent for preparation of work programs and progress and financial reports is estimated to be 720 (18 weeks × 40 hours per week). The total annual burden for all respondents is estimated to be 37,440 burden hours (720 burden hours per respondent times 52 respondents).

Frequency: This annual burden consists of staff time of each respondent for preparation of the work programs, and progress and financial reports. For

those respondents that elect to use biennial work programs, the burden for preparation of work programs would be significantly less for the second year.

Estimated Average Burden per Response:

Professional staff time for preparation of work programs: 400 hours/respondent.

Professional staff time for preparation of progress and financial reports: 120 hours/respondent.

Clerical staff time: 200 hours/respondent.

Estimated Total Annual Burden

Hours: 720 hours/respondent × 52 respondents = 37,400 hours.

Public Comments Invited: You are asked to comment on any aspect of this information collection, including: (1) Whether the proposed collection is necessary for the FHWA's performance; (2) the accuracy of the estimated burdens; (3) ways for the FHWA to enhance the quality, usefulness, and clarity of the collected information; and (4) ways that the burden could be minimized, including the use of electronic technology, without reducing the quality of the collected information. The agency will summarize and/or include your comments in the request for OMB's clearance of this information collection.

Authority: The Paperwork Reduction Act of 1995; 44 U.S.C. Chapter 35, as amended; and 49 CFR 1.48.

Issued on: August 31, 2023.

Jazmyne Lewis,

Information Collection Officer.

[FR Doc. 2023–19151 Filed 9–5–23; 8:45 am]

BILLING CODE 4910–22–P

DEPARTMENT OF TRANSPORTATION

Federal Railroad Administration

[Docket No. FRA–2010–0060]

Norfolk Southern Railway's Request To Operate During a Temporary Outage of Its Positive Train Control System; Withdrawal of Filing and Notice

AGENCY: Federal Railroad Administration (FRA), Department of Transportation (DOT).

ACTION: Notice; withdrawal.

SUMMARY: On September 1, 2023, the Federal Railroad Administration (FRA) published a notice in the **Federal Register** announcing the availability of the Norfolk Southern Railway's (NS) request for amendment (RFA), dated August 28, 2023, to its FRA-certified positive train control (PTC) system. This

document withdraws that notice, FR Doc. 2023–18996. On August 30, 2023, NS withdrew its RFA.

DATES: As of September 6, 2023, FR Doc. 2023–18996, published on September 1, 2023, is withdrawn.

FOR FURTHER INFORMATION CONTACT: For further information, please contact Gabe Neal, Staff Director, Signal, Train Control, and Crossings Division, telephone: 816–516–7168, email: Gabe.Neal@dot.gov.

SUPPLEMENTARY INFORMATION: FR Doc. 2023–18996, published on September 1, 2023, is withdrawn by this notice.

Issued in Washington, DC.

Carolyn R. Hayward-Williams,

Director, Office of Railroad Systems and Technology.

[FR Doc. 2023–19186 Filed 9–5–23; 8:45 am]

BILLING CODE 4910–06–P

DEPARTMENT OF TRANSPORTATION

National Highway Traffic Safety Administration

[Docket No. NHTSA–2021–0038; Notice 2]

Porsche Cars North America, Inc., Grant of Petition for Decision of Inconsequential Noncompliance

AGENCY: National Highway Traffic Safety Administration (NHTSA), Department of Transportation (DOT).

ACTION: Grant of petition.

SUMMARY: Porsche Cars North America, Inc., (“Porsche”), has determined that certain model year (MY) 2017–2021 Porsche Panamera, MY 2019–2021 Porsche Cayenne, and MY 2020–2021 Porsche Taycan motor vehicles do not fully comply with Federal Motor Vehicle Safety Standard (FMVSS) No. 135, *Light Vehicle Brake Systems*. Porsche filed an original noncompliance report dated March 10, 2021. Subsequently, Porsche petitioned NHTSA on April 1, 2021, for a decision that the subject noncompliance is inconsequential as it relates to motor vehicle safety. This notice announces the grant of Porsche’s petition.

FOR FURTHER INFORMATION CONTACT: Vince Williams, General Engineer, NHTSA, Office of Vehicle Safety Compliance, (202) 366–2319, vince.williams@dot.gov.

SUPPLEMENTARY INFORMATION:

I. Overview

Porsche has determined that certain MY 2017–2021 Porsche Panamera, MY 2019–2021 Porsche Cayenne, and MY 2020–2021 Porsche Taycan motor vehicles do not fully comply with the

requirements of paragraphs S5.5.5(a) and S5.5.5(d)(5) of FMVSS No. 135, *Light Vehicle Brake Systems* (49 CFR 571.135). Porsche filed a noncompliance report dated March 10, 2021, pursuant to 49 CFR part 573, *Defect and Noncompliance Responsibility and Reports*. Porsche subsequently petitioned NHTSA on April 1, 2021, for an exemption from the notification and remedy requirements of 49 U.S.C. Chapter 301 on the basis that this noncompliance is inconsequential as it relates to motor vehicle safety, pursuant to 49 U.S.C. 30118(d) and 30120(h) and 49 CFR part 556, *Exemption for Inconsequential Defect or Noncompliance*.

Notice of receipt of Porsche’s petition was published with a 30-day public comment period, on August 16, 2021, in the **Federal Register** (86 FR 45817). No comments were received. To view the petition and all supporting documents log onto the Federal Docket Management System (FDMS) website at <https://www.regulations.gov/>. Then follow the online search instructions to locate docket number “NHTSA–2021–0038.”

II. Vehicles Involved

Approximately 80,666 of the following MY 2017–2021 Porsche motor vehicles manufactured between October 23, 2016, and February 9, 2021, are potentially involved:

- MY 2017–2021 Panamera 4
- MY 2017–2021 Panamera
- MY 2017–2021 Panamera 4 S
- MY 2017–2020 Panamera Turbo
- MY 2017–2020 Panamera 4 S Executive
- MY 2017–2020 Panamera Turbo Executive
- MY 2018–2021 Panamera 4 Hybrid
- MY 2018–2020 Panamera Turbo S Hybrid
- MY 2018–2021 Panamera 4 Executive
- MY 2018–2020 Panamera 4 Hybrid Executive
- MY 2018–2020 Panamera Turbo S Hybrid Executive
- MY 2018–2020 Panamera 4 Sport Turismo
- MY 2018–2020 Panamera 4 S Sport Turismo
- MY 2018–2020 Panamera 4 Hybrid Sport Turismo
- MY 2018–2020 Panamera Turbo Sport Turismo
- MY 2018–2020 Panamera Turbo S Hybrid Sport Turismo
- MY 2019–2021 Panamera GTS
- MY 2020 Panamera GTS Sport Turismo
- MY 2019–2021 Cayenne
- MY 2019–2021 Cayenne S
- MY 2019–2021 Cayenne Hybrid

- MY 2019–2021 Cayenne Turbo
- MY 2020 Panamera 10 Year Special Model
- MY 2020 Panamera 4 10 Year Special Model
- MY 2020–2021 Taycan 4S
- MY 2020 Taycan Top S
- MY 2020 Taycan Top
- MY 2020 Panamera 4 Hybrid 10 Year Special Model
- MY 2020 Cayenne Turbo S Hybrid
- MY 2020–2021 Cayenne Coupe
- MY 2020–2021 Cayenne S Coupe
- MY 2020–2021 Cayenne Hybrid Coupe
- MY 2020–2021 Cayenne Turbo Coupe
- MY 2020 Cayenne Turbo S Hybrid Coupe
- MY 2021 Taycan
- MY 2021 Taycan Turbo S
- MY 2021 Taycan Turbo
- MY 2021 Panamera Turbo S
- MY 2021 Panamera 4S Hybrid
- MY 2021 Cayenne GTS
- MY 2021 Cayenne GTS Coupe

III. Noncompliance

Porsche explains that the noncompliance is that the subject vehicles are equipped with brake wear indicators that do not meet the minimum lettering height requirements, as specified in paragraph S5.5.5(d)(5) of FMVSS No. 135. Specifically, the lettering height for the brake wear indicators ranges in height from 1.7 mm to 2.2 mm, when the required minimum height is 3.2 mm.

IV. Rule Requirements

Paragraphs S5.5.5(a) and S5.5.5(d)(5) of FMVSS No. 135 include the requirements relevant to this petition. Each visual indicator shall display a word or words in accordance with the requirements of FMVSS No. 101 (49 CFR 571.101) and FMVSS No. 135, which shall be legible to the driver under all daytime and nighttime conditions when activated. Unless otherwise specified, the words shall have letters not less than 3.2 mm ($\frac{1}{8}$ inch) high and the letters and background shall be of contrasting colors, one of which is red. Words or symbols in addition to those required by FMVSS No. 101 and FMVSS No. 135 may be provided for purposes of clarity. If a separate indicator is provided to indicate brake lining wear-out as specified in S5.5.1(d), the words “Brake Wear” shall be used.

V. Summary of Porsche’s Petition

The following views and arguments presented in this section, “V. Summary of Porsche’s Petition,” are the views and arguments provided by Porsche and do not reflect the views of the Agency.

Porsche describes the subject noncompliance and contends that the noncompliance is inconsequential as it relates to motor vehicle safety.

Porsche believes that the subject noncompliance is inconsequential to vehicle safety. Porsche explains that, in addition to the required brake wear indicator, the affected vehicles have a multi-functional display that provides brake wear information and is readily visible to the driver. Porsche states that the brake wear message can be confirmed and then suppressed at the next ignition cycle, however, the operator would need to read and understand the message in order to do so. Porsche states that the brake wear indicator text is red, which is compliant and a contrasting color to the background of the text. Porsche believes that along with the color, the position of the text makes the brake wear indicator symbol conspicuous to the driver. The symbol is located adjacent to the fuel, temperature, and other vehicle data displays. Furthermore, Porsche states that the brake wear detection is functional and not affected by the noncompliant size of the text. Porsche adds that each letter of the text is capitalized, making it more easily seen and read by the driver due to the uniform height.

Porsche states that owners of the subject vehicles would understand the symbol despite the noncompliant text size because the owner's manual provided with the vehicle contains information about the brake wear warning symbol. Porsche notes that the subject noncompliance has been corrected in production vehicles.

Porsche contends that NHTSA has granted the prior petitions for similar noncompliances.¹ Furthermore, Porsche says that NHTSA has stated in previous determinations that it generally finds labeling noncompliances like the subject noncompliance to be "more appropriate for a determination of inconsequentiality."²

Porsche concludes that the subject noncompliance is inconsequential as it relates to motor vehicle safety and that its petition to be exempted from providing notification of the noncompliance, as required by 49 U.S.C. 30118, and a remedy for the noncompliance, as required by 49 U.S.C. 30120, should be granted.

VII. NHTSA's Analysis

In determining inconsequentiality of a noncompliance, NHTSA focuses on the safety risk to individuals who experience the type of event against which a recall would otherwise protect.³ In general, NHTSA does not consider the absence of complaints or injuries when determining if a noncompliance is inconsequential to safety. The absence of complaints does not mean vehicle occupants have not experienced a safety issue, nor does it mean that there will not be safety issues in the future.⁴

The Agency concurs with Porsche that this noncompliance will not have an adverse effect on vehicle safety. Despite the letter height of the brake wear indicators being smaller than the 3.2 mm requirement, the affected vehicles include a multi-functional display which provides supplementary brake wear information that is located within the driver's direct field of vision, immediately adjacent to the fuel, temperature, other critical vehicle data displays. Although the additional brake warnings can be suppressed by the vehicle operator, the information is presented at every new ignition cycle and informs the driver of the need to change the brake pads while also recommending if continued driving is possible/advised. For as long as the brake warnings exist, the driver will be required to make a deliberate action after every new key cycle in order to suppress the additional brake warning messages. Finally, the additional brake warning symbols are accurately depicted and displayed in the correct colors, consistent with Table 1 of FMVSS No. 101, minimizing any confusion about the meaning of the indicators. Due to the aforementioned factors, the Agency concurs with Porsche that the subject noncompliance will have an adverse effect on vehicle

³ See *Gen. Motors, LLC; Grant of Petition for Decision of Inconsequential Noncompliance*, 78 FR 35355 (June 12, 2013) (finding noncompliance had no effect on occupant safety because it had no effect on the proper operation of the occupant classification system and the correct deployment of an air bag); *Osram Sylvania Prods. Inc.; Grant of Petition for Decision of Inconsequential Noncompliance*, 78 FR 46000 (July 30, 2013) (finding occupant using noncompliant light source would not be exposed to significantly greater risk than occupant using similar compliant light source).

⁴ See *Morgan 3 Wheeler Limited; Denial of Petition for Decision of Inconsequential Noncompliance*, 81 FR 21663, 21666 (Apr. 12, 2016); see also *United States v. Gen. Motors Corp.*, 565 F.2d 754, 759 (D.C. Cir. 1977) (finding defect poses an unreasonable risk when it "results in hazards as potentially dangerous as sudden engine fire, and where there is no dispute that at least some such hazards, in this case fires, can definitely be expected to occur in the future").

safety and therefore recommends that this petition be granted.

VII. NHTSA's Decision

In consideration of the foregoing, NHTSA finds that Porsche has met its burden of persuasion that the subject FMVSS No. 135 noncompliance in the affected vehicles is inconsequential to motor vehicle safety. Accordingly, Porsche's petition is hereby granted, and Porsche is consequently exempted from the obligation of providing notification of, and a free remedy for, that noncompliance under 49 U.S.C. 30118 and 30120.

NHTSA notes that the statutory provisions (49 U.S.C. 30118(d) and 30120(h)) that permit manufacturers to file petitions for a determination of inconsequentiality allow NHTSA to exempt manufacturers only from the duties found in sections 30118 and 30120, respectively, to notify owners, purchasers, and dealers of a defect or noncompliance and to remedy the defect or noncompliance. Therefore, this decision only applies to the subject vehicles that Porsche no longer controlled at the time it determined that the noncompliance existed. However, the granting of this petition does not relieve vehicle distributors and dealers of the prohibitions on the sale, offer for sale, or introduction or delivery for introduction into interstate commerce of the noncompliant vehicles under their control after Porsche notified them that the subject noncompliance existed.

(Authority: 49 U.S.C. 30118, 30120; delegations of authority at 49 CFR 1.95 and 501.8)

Otto G. Matheke, III,

Director, Office of Vehicle Safety Compliance.

[FR Doc. 2023–19142 Filed 9–5–23; 8:45 am]

BILLING CODE 4910–59–P

DEPARTMENT OF TRANSPORTATION

Office of the Secretary

[Docket No. DOT–OST–2023–0063]

Agency Information Collection Activities: Approval of Information Collection

AGENCY: Office of the Secretary (OST), DOT.

ACTION: 60-Day notice and request for comments.

SUMMARY: The Department of Transportation (DOT) invites public comments on our intention to request Office of Management and Budget (OMB) approval for an information collection in accordance with the

¹ See 81 FR 92964 (Dec. 20, 2016); see also 67 FR 72026 (Dec. 3, 2002).

² See, *Porsche Cars North America, Inc., Grant of Petition for Decision of Inconsequential Noncompliance*, 85 FR 62365, 62366 (Oct. 2, 2020).

requirements of the Paperwork Reduction Act of 1995. This collection is necessary for administration of the Reconnecting Communities (RCP) and Neighborhood Access and Equity (NAE) Discretionary Grant Programs and funding opportunities. Together, these programs are known as “Reconnecting Communities and Neighborhoods (RCN)” in the combined NOFO. RCN provides federal financial assistance for surface transportation infrastructure projects. Through RCP, this includes removing, retrofitting, or mitigating transportation facilities such as highways and rail lines that create barriers to community connectivity including to mobility, access, or economic development. Through NAE, this includes the RCP eligibilities, with the further ability to reduce burdens such as GHG emissions, hot spot areas, gaps in tree canopy coverage, and other natural environment concerns.

DATES: Written comments should be submitted by November 6, 2023.

ADDRESSES: To ensure that you do not duplicate your docket submissions, please submit them by only one of the following means:

- *Federal eRulemaking Portal:* Go to <http://www.regulations.gov> and follow the online instructions for submitting comments.
- *Mail:* Docket Management Facility, U.S. Department of Transportation, 1200 New Jersey Ave. SE, West Building Ground Floor, Room W12-140, Washington, DC 20590-0001.
- *Hand Delivery:* West Building Ground Floor, Room W-12-140, 1200 New Jersey Ave. SE, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The telephone number is 202-366-9329.

Instructions: To ensure proper docketing of your comment, please include the agency name and docket number [DOT-OST-2023-0063] at the beginning of your comments. All comments received will be posted without change to <http://www.regulations.gov>, including any personal information provided.

FOR FURTHER INFORMATION CONTACT: For further information regarding this notice, please contact the Office of the Secretary via email at ReconnectingCommunities@dot.gov or contact Andrew Emanuele at andrew.emanuele@dot.gov or 202-366-0622. A TDD is available for individuals who are deaf or hard of hearing at 202-366-3993.

SUPPLEMENTARY INFORMATION: New Collection. OMB number will be issued after the collection is approved.

Title: Reconnecting Communities Pilot Program and Neighborhood Access and Equity Program (Reconnecting Communities and Neighborhoods (RCN) Discretionary Grants.

Form Numbers: None.

Type of Review: New Information Collection Request (ICR).

Background: The Office of the Secretary (“OST”) within the Department of Transportation (DOT) provides financial assistance for surface transportation infrastructure projects—including removing, retrofitting, or mitigating transportation facilities such as highways and rail lines that create barriers to community connectivity including to mobility, access, or economic development. The Infrastructure Investment and Jobs Act (Pub. L. 117-58, November 15, 2021) (Bipartisan Infrastructure Law, or BIL) provided funds to the Department to invest in planning and capital construction grants to reduce transportation barriers: the Reconnecting Communities Pilot Program, found under section 11509 of division A. The Inflation Reduction Act (Pub. L. 117-169, August 16, 2022) (IRA) provided funds to the Department for the NAE to invest in planning and construction grants to improve the walkability, safety, and provide affordable access: the Neighborhood Access & Equity grant program, found at 23 U.S.C. 177: To help streamline the process for applicants, the Department has combined the applications for the RCP and NAE programs into the RCN common application.

The DOT combined these two programs into one single Notice of Funding Opportunity (NOFO) to provide a more efficient application process for project sponsors. While they remain separate programs for the purposes of award, the programs share many common characteristics. Because of these shared characteristics, it is possible for many projects to be eligible and considered for multiple programs using a single application.

This notice seeks comments on the proposed information collection, which will collect information necessary to support the ongoing oversight and administration of previous awards, a Letter of Intent screening tool, the evaluation and selection of new applications, the funding agreement negotiation stage for new awards, and the evaluation of the programs. The reporting requirements for the program is as follows:

Prior to applying, a project sponsor may fill out a “Letter of Intent” screening tool to help determine eligibility for one or both programs

within the RCN NOFO or help direct them to a more appropriate grant program.

To be considered to receive an RCN grant, a project sponsor must submit an application to DOT containing a project narrative, as detailed in the NOFO. The project narrative should include the information necessary for the Department to determine that the project satisfies eligibility requirements as warranted by law.

After the award announcement the Department will send out a voluntary survey to all applicants and webinar participants to help evaluate the application process.

Following the announcement of a funding award, the recipient and DOT will negotiate and sign a funding agreement with awardees. In the agreement, the recipient must describe the project that DOT agreed to fund, which is the project that was described in the RCN application or a reduced-scope version of that project. The agreement also includes project schedule milestones, a budget, and project-related climate change, equity, and workforce planning and policies.

During the project monitoring stage, grantees will submit reports on the financial condition of the project and the project’s progress. Grantees will submit progress and monitoring reports to the Government on a quarterly basis until completion of the project. The progress reports will include an SF-425, Federal Financial Report, and other information determined by the administering DOT Operating Administration. This information will be used to monitor grantees’ use of Federal funds, ensuring accountability and financial transparency in the RCN programs.

For Post Construction Reporting, the DOT will evaluate the program for recipients of capital construction grants and include the outcomes and impacts of the highway removal project. The report will document any changes in the overall level of mobility, congestion, access, and safety in the project area, and environmental impacts and economic development opportunities in the project area. Performance reporting continues for several years after project construction is completed in which DOT will not provide grant funding specifically for performance reporting.

For the purposes of estimating the information collection burden below for new applicants and awardees, the Department is assuming that for each year 2023–2025, the Department will review approximately 1,000 applications and negotiate 100 funding agreements. Quarterly project

monitoring will also exist for the 45 RCP breakdown of burden hours, please see projects awarded in FY22. For a detailed Table 1.

TABLE 1

Respondent	Year 1 (2023)			Year 2 (2024)			Year 3 (2025)			Total hrs.
	#	Hrs.	Freq.	#	Hrs.	Freq.	#	Hrs.	Freq.	
Letter of Intent ...	600	0.5	1	.....	.....	.....	.....	.....	.....	300
Applicants	1,000	100	1	.....	.....	.....	.....	.....	.....	100,000
Survey	700	0.5	1	.....	.....	.....	.....	.....	.....	350
Awardee Fund- ing Agree- ments .....	.....	.....	.....	100	6	1	.....	.....	.....	600
Quarterly Moni- toring (2022) ..	45	5	4	.....	.....	.....	.....	.....	.....	900
Letter of Intent ...	.....	.....	.....	600	0.5	1	.....	.....	.....	300
Applicants .....	.....	.....	.....	1,000	100	1	.....	.....	.....	100,000
Survey .....	.....	.....	.....	700	0.5	1	.....	.....	.....	350
Awardee Fund- ing Agree- ments .....	.....	.....	.....	.....	.....	.....	100	6	1	600
Quarterly Moni- toring (2022 & 2023) .....	.....	.....	.....	145	5	4	.....	.....	.....	2,900
Letter of Intent ...	.....	.....	.....	.....	.....	.....	250	0.5	1	125
Applicants .....	.....	.....	.....	.....	.....	.....	435	100	1	43,500
Survey .....	.....	.....	.....	.....	.....	.....	300	0.5	1	150
Awardee Fund- ing Agree- ments .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Quarterly Moni- toring (2022, 2023, 2024) ...	.....	.....	.....	.....	.....	.....	245	5	4	4,900
Grand Total	.....	.....	.....	.....	.....	.....	.....	.....	.....	254,975

The Department's estimated burden for this information collection is the following:

For Letter of Intent Screening Tool

Expected Number of Respondents:
Approximately 600 in Year 1 and 2. DOT expects 250 in Year 3 with depletion of NAE funding by then, reducing those using the tool.

Frequency: Once.
Estimated Average Burden per Response: .5 hours.

For New Applications

Expected Number of Respondents:
Approximately 1,000 in Year 1 and 2. 435 are expected for Year 3 with depletion of NAE funding.

Frequency: Once.
Estimated Average Burden per Response: 100 hours for each new Application;

For Program Evaluation (Survey)

Expected Number of Respondents:
Approximately 700 in Year 1 and 2. 300 in Year 3.

Frequency: Once.
Estimated Average Burden per Response: 0.5 hours for each application;

For Funding Agreements

Expected Number of Respondents:
Approximately 100 in Year 1 and 2.

Frequency: Once.
Estimated Average Burden per Response: 6 hours for each new Funding Agreement;

For Quarterly Project Monitoring

Expected Number of Respondents:
Approximately 45 in Year 1. 100 in Year 2 and Year 3.

Frequency: Quarterly.
Estimated Average Burden per Response: 5 hours for each request for Quarterly Progress and Monitoring Report;

For Post-Construction Project Monitoring

Because RCN expect no projects to complete construction by 2025, post-construction monitoring hours and cost are not computed in this document.

Estimated Total 3-Year Burden on Respondents: 254,975 Hours

- Letter of Intent [825 hrs]
- New Applicants [242,000 hrs]
- Survey [850 hrs]
- New Awardee Funding Agreements [1,200 hrs]
- Prior Awardee Quarterly Project Monitoring [8,700]

The following is detailed information and instructions regarding the specific reporting requirements for each report identified above:

Letter of Intent Screening Stage

To help applicants determine their eligibility for the RCN combined grant opportunity, OST will develop and use the "Letter of Intent" tool to help applicants determine eligibility for the programs or what application materials they may be missing. The Letter of Intent screening tool will save potential applicants hundreds of hours of application development time if the project has a "fatal flaw" that would render it ineligible. The Letter of Intent tool will consist of 10–20 questions and takes .5 hrs to fill out.

Application Stage

To be considered to receive a RCN grant, a project sponsor must apply to DOT containing a project narrative, as detailed in the NOFO. The project narrative should include the information necessary for the Department to determine that the project satisfies eligibility requirements.

Applications must be submitted through www.valideval.com. Instructions for submitting Planning or Capital applications can be found at https://usg.valideval.com/teams/rcn_planning/signup or https://usg.valideval.com/teams/rcn_capitalconstruction/signup, respectively. The application must

include the Standard Form 424 (Application for Federal Assistance), Standard Form 424C (Budget Information for Construction Programs), cover page, and the Project Narrative.

The application should include a table of contents, maps, and graphics, as appropriate, to make the information easier to review. The Department recommends that the application be prepared with standard formatting preferences (*i.e.*, a single-spaced document, using a standard 12-point font such as Times New Roman, with 1-inch margins). The only substantive portions that may exceed the page limit are documents supporting assertions or conclusions made in the project narrative. If possible, website links to supporting documentation should be provided rather than copies of these supporting materials. If supporting documents are submitted, applicants should clearly identify within the project narrative the relevant portion of the project narrative that each supporting document supports. At the applicant's discretion, relevant materials provided previously to a modal administration in support of a different USDOT financial assistance program may be referenced and described as unchanged.

OST estimates that it takes approximately 100 person-hours to compile an application package for a RCN application. Since OST expects to receive 1000 applications per funding round, the total hours required are estimated to be 50,000 hours (100 hours $\times$ 1,000 applications = 100,000 hours) on a one-time basis, per funding round.

Program Evaluation Stage (Survey)

To understand the RCN grant process from the applicant's point of view, OST plans to send out a survey after all award decisions have been made. This survey will go to all applicants, both successful and unsuccessful, and will take approximately .5 hours to complete.

Funding Agreement Stage

DOT enters a funding agreement with each recipient. In the agreement, the recipient describes the project that DOT agreed to fund, which is typically the project that was described in the RCN application or a reduced-scope version of that project. The agreement also includes a project schedule, budget, and project related climate change and equity planning and policies.

OST estimates that it takes approximately 6 person-hours to respond to provide the information necessary for funding agreements. Based on previous rounds of RCN awards, OST

estimates that there will likely be 100 agreements negotiated per additional funding round. The total hours required are estimated to be 600 (6 hours $\times$ 100 agreements = 600 hours) on a one-time basis, per funding round.

Project Monitoring Stage

OST requires each recipient to submit quarterly reports during the project to ensure the proper and timely expenditure of federal funds under the grant.

The requirements comply with 2 CFR part 200 and are restated in the funding agreement. During the project monitoring stage, the grantee will complete Quarterly Progress Reports to allow DOT to monitor the project budget and schedule.

OST estimates that it takes approximately 5 person-hours to develop and submit a quarterly progress report. OST awarded 45 recipients and awardees in 2022. OST expects approximately 100 projects to be awarded per funding round.

Post Construction Monitoring Stage

For Post Construction Reporting, the DOT will evaluate the program for recipients of capital construction grants and include the outcomes and impacts of the highway removal project. The report will document any changes in the overall level of mobility, congestion, access, and safety in the project area, and environmental impacts and economic development opportunities in the project area. Because RCN expect no projects to complete construction by 2025, post-construction monitoring hours and cost are not computed in this document.

Authority: The Paperwork Reduction Act of 1995; 44 U.S.C. Chapter 35, as amended; and 49 CFR 1:48.

Issued in Washington, DC, on August 31st, 2023.

John Augustine,

Director of the Office of Infrastructure Finance and Innovation, Office of the Under Secretary for Transportation Policy.

[FR Doc. 2023-19175 Filed 9-5-23; 8:45 am]

BILLING CODE 4910-9X-P

DEPARTMENT OF THE TREASURY

Bureau of the Fiscal Service

Proposed Collection of Information: Generic Clearance for the Collection of Qualitative Feedback on Agency Service Delivery

ACTION: Notice and request for comments.

SUMMARY: The Department of the Treasury, as part of its continuing effort to reduce paperwork and respondent burden, invites the general public and other Federal agencies to take this opportunity to comment on proposed and/or continuing information collections, as required by the Paperwork Reduction Act of 1995. Currently the Bureau of the Fiscal Service within the Department of the Treasury is soliciting comments concerning the Generic Clearance for the Collection of Qualitative Feedback on Agency Service Delivery.

DATES: Written comments should be received on or before November 6, 2023 to be assured of consideration.

ADDRESSES: Direct all written comments and requests for additional information to Bureau of the Fiscal Service, Bruce A. Sharp, Room #4006-A, P.O. Box 1328, Parkersburg, WV 26106-1328, or bruce.sharp@fiscal.treasury.gov.

SUPPLEMENTARY INFORMATION:

Title: Generic Clearance for the Collection of Qualitative Feedback on Agency Service Delivery.

OMB Number: 1530-0023.

Abstract: The Bureau of the Fiscal Service conducts various surveys, focus groups, and interviews to assess the effectiveness and efficiency of existing products and services; to obtain knowledge about the potential public audiences attracted to new products being introduced; and to measure awareness and appeal of efforts to reach audiences and customers.

Current Actions: Extension of a currently approved collection.

Type of Review: Regular.

Affected Public: Individuals or Households.

Estimated Number of Respondents: 75,000.

Estimated Time per Respondent: 8 minutes.

Estimated Total Annual Burden Hours: 10,000.

Request for Comments: Comments submitted in response to this notice will be summarized and/or included in the request for OMB approval. All comments will become a matter of public record. Comments are invited on: 1. Whether the collection of information is necessary for the proper performance of the functions of the agency, including whether the information shall have practical utility; 2. the accuracy of the agency's estimate of the burden of the collection of information; 3. ways to enhance the quality, utility, and clarity of the information to be collected; 4. ways to minimize the burden of the collection of information on respondents, including through the use

of automated collection techniques or other forms of information technology; and 5. estimates of capital or start-up costs and costs of operation, maintenance, and purchase of services to provide information.

Dated: August 30, 2023.

Bruce A. Sharp,

Bureau PRA Clearance Officer.

[FR Doc. 2023–19130 Filed 9–5–23; 8:45 am]

BILLING CODE 4810–AS–P

DEPARTMENT OF THE TREASURY

Bureau of the Fiscal Service

Proposed Collection of Information: Legacy Treasury Direct Forms

ACTION: Notice and request for comments.

SUMMARY: The Department of the Treasury, as part of its continuing effort to reduce paperwork and respondent burden, invites the general public and other Federal agencies to take this opportunity to comment on proposed and/or continuing information collections, as required by the Paperwork Reduction Act of 1995. Currently the Bureau of the Fiscal Service within the Department of the Treasury is soliciting comments concerning the Legacy Treasury Direct Forms.

DATES: Written comments should be received on or before November 6, 2023 to be assured of consideration.

ADDRESSES: Direct all written comments and requests for additional information to Bureau of the Fiscal Service, Bruce A. Sharp, Room #4006–A, P.O. Box 1328, Parkersburg, WV 26106–1328, or bruce.sharp@fiscal.treasury.gov.

SUPPLEMENTARY INFORMATION:

Title: Legacy Treasury Direct Forms.

OMB Number: 1530–0042.

Form Numbers: FS Form 5178—

Transaction Request

FS Form 5179—Security Transfer Request

FS Form 5188—Durable Power of Attorney for Securities and Savings Bonds Transactions

FS Form 5191—Application for Recognition as Natural Guardian of a Minor

FS Form 5235—Report of Non-Receipt, Loss, Theft, or Destruction of a Fiscal Agency Check and Application for Replacement

FS Form 5236—Claim for Proceeds of a Fiscal Agency Check

Abstract: The information is requested to issue and maintain Treasury Bills, Notes, and Bonds.

Current Actions: Extension of a currently approved collection.

Type of Review: Regular.

Affected Public: Individuals or Households.

Estimated Number of Respondents: 5,100.

Estimated Time per Respondent: 13 minutes.

Estimated Total Annual Burden Hours: 1,105.

Request for Comments: Comments submitted in response to this notice will be summarized and/or included in the request for OMB approval. All comments will become a matter of public record. Comments are invited on: 1. Whether the collection of information is necessary for the proper performance of the functions of the agency, including whether the information shall have practical utility; 2. the accuracy of the agency's estimate of the burden of the collection of information; 3. ways to enhance the quality, utility, and clarity of the information to be collected; 4. ways to minimize the burden of the collection of information on respondents, including through the use of automated collection techniques or other forms of information technology; and 5. estimates of capital or start-up costs and costs of operation, maintenance, and purchase of services to provide information.

Dated: August 30, 2023.

Bruce A. Sharp,

Bureau PRA Clearance Officer.

[FR Doc. 2023–19129 Filed 9–5–23; 8:45 am]

BILLING CODE 4810–AS–P

DEPARTMENT OF THE TREASURY

Bureau of the Fiscal Service

Proposed Collection of Information: Resolution for Transactions Involving Treasury Securities

ACTION: Notice and request for comments.

SUMMARY: The Department of the Treasury, as part of its continuing effort to reduce paperwork and respondent burden, invites the general public and other Federal agencies to take this opportunity to comment on proposed and/or continuing information collections, as required by the Paperwork Reduction Act of 1995. Currently the Bureau of the Fiscal Service within the Department of the Treasury is soliciting comments concerning the Resolution for Transactions Involving Treasury Securities.

DATES: Written comments should be received on or before November 6, 2023 to be assured of consideration.

ADDRESSES: Direct all written comments and requests for additional information to Bureau of the Fiscal Service, Bruce A. Sharp, Room #4006–A, P.O. Box 1328, Parkersburg, WV 26106–1328, or bruce.sharp@fiscal.treasury.gov.

SUPPLEMENTARY INFORMATION:

Title: Resolution for Transactions Involving Treasury Securities.

OMB Number: 1530–0049.

Form Number: FS Form 1010.

Abstract: The information is collected to establish an official's authority (by name and title) when conducting transactions involving Treasury Securities on behalf of an organization.

Current Actions: Extension of a currently approved collection.

Type of Review: Regular.

Affected Public: Business or other for-profit.

Estimated Number of Respondents: 2,580.

Estimated Time per Respondent: 10 minutes.

Estimated Total Annual Burden Hours: 430.

Request for Comments: Comments submitted in response to this notice will be summarized and/or included in the request for OMB approval. All comments will become a matter of public record. Comments are invited on: 1. Whether the collection of information is necessary for the proper performance of the functions of the agency, including whether the information shall have practical utility; 2. the accuracy of the agency's estimate of the burden of the collection of information; 3. ways to enhance the quality, utility, and clarity of the information to be collected; 4. ways to minimize the burden of the collection of information on respondents, including through the use of automated collection techniques or other forms of information technology; and 5. estimates of capital or start-up costs and costs of operation, maintenance, and purchase of services to provide information.

Dated: August 31, 2023.

Bruce A. Sharp,

Bureau PRA Clearance Officer.

[FR Doc. 2023–19143 Filed 9–5–23; 8:45 am]

BILLING CODE 4810–AS–P

DEPARTMENT OF THE TREASURY**Bureau of the Fiscal Service****Proposed Collection of Information:
Direct Deposit Sign-Up Form**

ACTION: Notice and request for comments.

SUMMARY: The Department of the Treasury, as part of its continuing effort to reduce paperwork and respondent burden, invites the general public and other Federal agencies to take this opportunity to comment on proposed and/or continuing information collections, as required by the Paperwork Reduction Act of 1995. Currently the Bureau of the Fiscal Service within the Department of the Treasury is soliciting comments concerning the Direct Deposit Sign-Up Form.

DATES: Written comments should be received on or before November 6, 2023 to be assured of consideration.

ADDRESSES: Direct all written comments and requests for additional information to Bureau of the Fiscal Service, Bruce A. Sharp, Room #4006–A, P.O. Box 1328, Parkersburg, WV 26106–1328, or bruce.sharp@fiscal.treasury.gov.

SUPPLEMENTARY INFORMATION:

Title: Direct Deposit Sign-Up Form.

OMB Number: 1530–0050.

Form Number: FS Form 5396.

Abstract: The information is collected to process requests for direct deposit of a Series HH or Series H bond interest payment or a savings bond redemption payment to a financial institution.

Current Actions: Extension of a currently approved collection.

Type of Review: Regular.

Affected Public: Individuals or households.

Estimated Number of Respondents: 24,000.

Estimated Time per Respondent: 10 minutes.

Estimated Total Annual Burden Hours: 4,000.

Request for Comments: Comments submitted in response to this notice will be summarized and/or included in the request for OMB approval. All comments will become a matter of

public record. Comments are invited on: 1. Whether the collection of information is necessary for the proper performance of the functions of the agency, including whether the information shall have practical utility; 2. the accuracy of the agency's estimate of the burden of the collection of information; 3. ways to enhance the quality, utility, and clarity of the information to be collected; 4. ways to minimize the burden of the collection of information on respondents, including through the use of automated collection techniques or other forms of information technology; and 5. estimates of capital or start-up costs and costs of operation, maintenance, and purchase of services to provide information.

Dated: August 31, 2023.

Bruce A. Sharp,

Bureau PRA Clearance Officer.

[FR Doc. 2023–19144 Filed 9–5–23; 8:45 am]

BILLING CODE 4810–AS–P

DEPARTMENT OF THE TREASURY**Bureau of the Fiscal Service****Proposed Collection of Information:
U.S. Treasury Auction Submitter
Agreement**

ACTION: Notice and request for comments.

SUMMARY: The Department of the Treasury, as part of its continuing effort to reduce paperwork and respondent burden, invites the general public and other Federal agencies to take this opportunity to comment on proposed and/or continuing information collections, as required by the Paperwork Reduction Act of 1995. Currently the Bureau of the Fiscal Service within the Department of the Treasury is soliciting comments concerning the U.S. Treasury Auction Submitter Agreement.

DATES: Written comments should be received on or before November 6, 2023 to be assured of consideration.

ADDRESSES: Direct all written comments and requests for additional information to Bureau of the Fiscal Service, Bruce A. Sharp, Room #4006–A, P.O. Box 1328,

Parkersburg, WV 26106–1328, or bruce.sharp@fiscal.treasury.gov.

SUPPLEMENTARY INFORMATION:

Title: U.S. Treasury Auction Submitter Agreement.

OMB Number: 1530–0056.

Form Number: FS Form 5441 and FS Form 5441–2.

Abstract: The information is requested from entities wishing to participate in U.S. Treasury Securities auctions via TAAPS.

Current Actions: Extension of a currently approved collection.

Type of Review: Regular.

Affected Public: Depository Institutions, Brokers/Dealers, Assessment Management Companies, Pension Funds, and other Institutional Investors.

Estimated Number of Respondents: 1,050.

Estimated Time per Respondent: 5 minutes.

Estimated Total Annual Burden Hours: 88.

Request for Comments: Comments submitted in response to this notice will be summarized and/or included in the request for OMB approval. All comments will become a matter of public record. Comments are invited on: 1. Whether the collection of information is necessary for the proper performance of the functions of the agency, including whether the information shall have practical utility; 2. the accuracy of the agency's estimate of the burden of the collection of information; 3. ways to enhance the quality, utility, and clarity of the information to be collected; 4. ways to minimize the burden of the collection of information on respondents, including through the use of automated collection techniques or other forms of information technology; and 5. estimates of capital or start-up costs and costs of operation, maintenance, and purchase of services to provide information.

Dated: August 31, 2023.

Bruce A. Sharp,

Bureau PRA Clearance Officer.

[FR Doc. 2023–19145 Filed 9–5–23; 8:45 am]

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Part II

Department of Energy

Federal Energy Regulatory Commission

18 CFR Part 35

Improvements to Generator Interconnection Procedures and Agreements;
Final Rule

DEPARTMENT OF ENERGY

Federal Energy Regulatory
Commission

18 CFR Part 35

[Docket No. RM22–14–000; Order No. 2023]

Improvements to Generator
Interconnection Procedures and
AgreementsAGENCY: Federal Energy Regulatory
Commission, Department of Energy.

ACTION: Final rule.

SUMMARY: The Federal Energy Regulatory Commission (Commission or FERC) is adopting reforms to its *pro forma* Large Generator Interconnection Procedures, *pro forma* Small Generator Interconnection Procedures, *pro forma* Large Generator Interconnection Agreement, and *pro forma* Small Generator Interconnection Agreement to address interconnection queue backlogs, improve certainty, and prevent undue discrimination for new technologies. The reforms are intended to ensure that the generator interconnection process is just, reasonable, and not unduly discriminatory or preferential.

DATES: This final rule is effective November 6, 2023.

FOR FURTHER INFORMATION CONTACT: Tristan Kessler (Technical Information), Office of Energy Policy and Innovation, 888 First Street NE, Washington, DC 20426, (202) 502–6608, tristan.kessler@ferc.gov.

Franklin Jackson (Technical Information), Office of Energy Market Regulation, 888 First Street NE, Washington, DC 20426, (202) 502–6464, franklin.jackson@ferc.gov.

Sarah Greenberg (Legal Information), Office of the General Counsel, 888 First Street NE, Washington, DC 20426, (202) 502–6230, sarah.greenberg@ferc.gov.

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I. Introduction

1. This final rule requires all public utility transmission providers to adopt revised *pro forma* Large Generator Interconnection Procedures (LGIP), *pro forma* Small Generator Interconnection Procedures (SGIP), *pro forma* Large Generator Interconnection Agreements (LGIA), and *pro forma* Small Generator Interconnection Agreements (SGIA).¹

¹ Section 201(e) of the Federal Power Act (FPA) defines “public utility” to mean “any person who owns or operates facilities subject to the jurisdiction of the Commission under this subchapter.” 16 U.S.C. 824(e). A non-public utility that seeks voluntary compliance with the reciprocity condition of a tariff may satisfy that condition by filing a tariff, which includes the *pro forma* LGIP, the *pro forma* SGIP, the *pro forma* LGIA, and the *pro forma* SGIA. See *Standardization of Generator Interconnection Agreements & Procs.*, Order No. 2003, 68 FR 49846 (Aug. 19, 2003), 104 FERC ¶ 61,103, at PP 1, 616 (2003), *order on reh’g*, Order No. 2003–A, 69 FR 15932 (Mar. 5, 2004), 106 FERC ¶ 61,220, *order on reh’g*, Order No. 2003–B, 70 FR 265 (Jan. 19, 2005), 109 FERC ¶ 61,287 (2004), *order on reh’g*, Order No. 2003–C, 70 FR 37661 (July 18, 2005), 111 FERC ¶ 61,401 (2005), *aff’d sub nom.*

These revisions will ensure that interconnection customers are able to interconnect to the transmission system in a reliable, efficient, transparent, and timely manner, and will prevent undue discrimination.

2. Twenty years ago the Commission issued Order No. 2003, in which the Commission required all public utilities that own, control, or operate facilities used for transmitting electric energy in interstate commerce to have on file standard procedures and a standard agreement for interconnecting generating facilities larger than 20 megawatts (MW) (called the *pro forma* LGIP and the *pro forma* LGIA).² The Commission stated its expectation that the changes would prevent undue discrimination, preserve reliability, increase energy supply, and lower wholesale prices for customers by increasing the amount and variety of new generation that would compete in the wholesale electricity market.³ The Commission further stated that the standard procedures would facilitate market entry for generation competitors by reducing interconnection costs and time.⁴ In Order No. 2006, the Commission adopted standard procedures and a standard agreement for interconnecting generating facilities no larger than 20 MW (called the *pro forma* SGIP and the *pro forma* SGIA), citing the same purposes outlined in Order No. 2003.⁵

3. The electricity sector has transformed significantly since the issuance of Order Nos. 2003 and 2006. The growth of new resources seeking to interconnect to the transmission system and the differing characteristics of those resources have created new challenges for the generator interconnection process. These new challenges are creating large interconnection queue

Nat’l Ass’n of Regul. Util. Comm’rs v. FERC, 475 F.3d 1277 (D.C. Cir. 2007) (*NARUC v. FERC*). As stated in the *pro forma* LGIP, *pro forma* LGIA, *pro forma* SGIP, and *pro forma* SGIA, transmission provider “shall mean the public utility (or its designated agent) that owns, controls, or operates transmission or distribution facilities used for the transmission of electric energy in interstate commerce and provides transmission service under the [Transmission Provider’s Tariff]. The term . . . should be read to include the Transmission Owner when the Transmission Owner is separate from the Transmission Provider.” *Pro forma* LGIP section 1; *pro forma* LGIA art. 1; *pro forma* SGIP attach. 1; *pro forma* SGIA attach. 1.

² Order No. 2003, 104 FERC ¶ 61,103 at P 2.

³ *Id.* P 1.

⁴ *Id.* P 12.

⁵ *Standardization of Small Generator Interconnection Agreements & Procs.*, Order No. 2006, 111 FERC ¶ 61,220, at PP 15, 35–36, *order on reh’g*, Order No. 2006–A, 70 FR 71760 (Dec. 30, 2005), 113 FERC ¶ 61,195 (2005), *order granting clarification*, Order No. 2006–B, 71 FR 42587 (July 27, 2006), 116 FERC ¶ 61,046 (2006).

backlogs and uncertainty regarding the cost and timing of interconnecting to the transmission system, increasing costs for consumers. Backlogs in the generator interconnection process, in turn, can create reliability issues as needed new generating facilities are unable to come online in an efficient and timely manner. While the Commission recognized these issues and sought to address them in Order No. 845,⁶ it is clear that further action is needed. Therefore, we believe that it is necessary to reform the Commission's standard interconnection procedures and agreements to ensure that interconnection customers are able to interconnect to the transmission system in a reliable, efficient, transparent, and timely manner, thereby ensuring that rates, terms, and conditions for Commission-jurisdictional services are just, reasonable, and not unduly discriminatory or preferential.

4. Accordingly, we adopt reforms to the Commission's *pro forma* LGIP and *pro forma* LGIA. Specifically, as explained in detail in this final rule, we adopt reforms to: (1) implement a first-ready, first-served cluster study process;⁷ (2) increase the speed of interconnection queue processing; and (3) incorporate technological advancements into the interconnection process.

5. First, in order to implement a first-ready, first-served cluster study process, this final rule requires: (1) transmission providers to publicly post available information pertaining to generator interconnection; (2) transmission providers to use cluster studies as the interconnection study method; (3) transmission providers to allocate cluster study costs on a pro rata and per capita basis; (4) transmission providers to allocate network upgrade costs based on a proportional impact method; (5) interconnection customers to pay study

and commercial readiness deposits as part of the cluster study process; (6) interconnection customers to demonstrate site control at the time of submission of the interconnection request; and (7) transmission providers to impose withdrawal penalties on interconnection customers for withdrawing from the interconnection queue, with certain exceptions. We also require transmission providers to adopt a transition process to move from the existing serial interconnection process to the new cluster study process.

6. Second, in order to increase the speed of interconnection queue processing, this final rule: (1) eliminates the reasonable efforts standard for conducting interconnection studies and imposes a financial penalty on transmission providers that fail to meet interconnection study deadlines; and (2) establishes an affected system study process and associated *pro forma* affected system agreements.

7. Third, in order to incorporate technological advancements into the interconnection process, this final rule requires transmission providers to: (1) allow more than one generating facility to co-locate on a shared site behind a single point of interconnection and share a single interconnection request; (2) evaluate the proposed addition of a generating facility at the same point of interconnection prior to deeming such an addition a material modification if the addition does not change the originally requested interconnection service level; (3) allow interconnection customers to access the surplus interconnection service process once the original interconnection customer has an executed LGIA or requests the filing of an unexecuted LGIA; (4) use operating assumptions in interconnection studies that reflect the proposed charging behavior of an electric storage resource; and (5) evaluate the list of alternative transmission technologies enumerated in this final rule during the generator interconnection study process. This final rule also requires interconnection customers requesting to interconnect a non-synchronous generating facility to: (1) provide the transmission provider with the models needed for accurate interconnection studies; and (2) have the ability to maintain power production at pre-disturbance levels and provide dynamic reactive power to maintain system voltage during transmission system disturbances and within physical limits. Finally, this final rule requires that all newly interconnecting large generating facilities provide ride through capability consistent with any standards and

guidelines that are applied to other generating facilities in the balancing authority area on a comparable basis.

8. We also adopt reforms to the *pro forma* SGIP and *pro forma* SGIA. Specifically, as explained in detail in this final rule, for small generating facilities we propose reforms to incorporate the enumerated alternative transmission technologies into the interconnection process, and to provide modeling and ride through requirements for non-synchronous generating facilities.

9. Many of the reforms adopted in this final rule track the notice of proposed rulemaking's⁸ (NOPR) proposed reforms closely. However, as discussed more fully below, we have revised aspects of the reforms pertaining to the cluster study process, allocation of cluster study and network upgrade costs, increased financial commitments and readiness requirements, financial penalties for delayed interconnection studies, the affected system study process, *pro forma* affected system agreements, the material modification process, operating assumptions for interconnection studies, incorporating the enumerated alternative transmission technologies, and ride through requirements. Additionally, as discussed more fully below, we decline to adopt the NOPR proposals pertaining to informational interconnection studies, shared network upgrades, the optional resource solicitation study, and the alternative transmission technologies annual report.

10. We recognize that transmission providers have undertaken efforts to address interconnection queue management issues. This final rule is not intended to divert or slow the potential progress represented by those efforts, and we encourage transmission providers to continue to innovate to remedy their identified interconnection queue management issues. We note that the compliance obligations that result from this final rule will be evaluated in light of the independent entity variation standard for regional transmission organizations (RTO) and independent system operators (ISO) and the consistent with or superior to standard for non-RTO/ISO transmission providers.⁹

A. Historical Framework: Order Nos. 2003, 2006, and 845

11. In Order No. 2003, the Commission recognized a need for a

⁸ *Improvements to Generator Interconnection Procs. & Agreements*, 87 FR 39934 (July 5, 2022), 179 FERC ¶ 61,194 (2022) (NOPR).

⁹ Order No. 2003, 104 FERC ¶ 61,103 at P 26; see *infra* section IV.

⁶ See *Reform of Generator Interconnection Procs. & Agreements*, Order No. 845, 83 FR 21342 (May 9, 2018), 163 FERC ¶ 61,043, at P 24 (2018), *order on reh'g*, Order No. 845-A, 84 FR 8156 (Mar. 6, 2019) 166 FERC ¶ 61,137, *order on reh'g*, Order No. 845-B, 168 FERC ¶ 61,092 (2019).

⁷ A first-ready, first-served cluster study process improves efficiency in the interconnection study process by including the following elements: increased access to information prior to entering the queue; a mechanism to study interconnection requests in groups where all interconnection requests in the group are equally queued and of equal study priority; and increased financial commitments and readiness requirements to enter and proceed through the queue. In contrast, the existing first-come, first-served serial study process in the *pro forma* LGIA and LGIP provides limited information to interconnection customers prior to entering the queue, assigns interconnection requests an individual queue position based solely on the date of entry into the queue, and contains limited financial and readiness requirements.

standard set of interconnection procedures for transmission providers and a single, uniformly applicable interconnection agreement for large generating facilities.¹⁰ The Commission noted that generator interconnection is a “critical component of open access transmission service and thus is subject to the requirement that utilities offer comparable service under the [*pro forma* open access transmission tariff (tariff)].”¹¹ The Commission found that it was appropriate to establish a standard set of generator interconnection procedures to “minimize opportunities for undue discrimination and expedite the development of new generation, while protecting reliability and ensuring that rates are just and reasonable.”¹² To this end, the Commission adopted the *pro forma* LGIP and *pro forma* LGIA and amended its regulations to require all transmission providers to incorporate these standard procedures and agreement into their tariffs.¹³

12. To initiate the generator interconnection process set forth in the Commission’s *pro forma* LGIP,¹⁴ the interconnection customer submits an interconnection request for its proposed generating facility that includes preliminary documentation of the site of the proposed generating facility, certain technical information about the proposed generating facility, and the expected commercial operation date of the proposed generating facility, along with a refundable deposit of \$10,000.¹⁵ After the transmission provider determines that the interconnection request is complete, the interconnection request enters the transmission provider’s interconnection queue with other pending interconnection requests and is assigned a queue position based on the time and date of its receipt.¹⁶ The queue position determines the order in which the transmission provider studies

the interconnection requests in its interconnection queue.¹⁷

13. Transmission providers must schedule a scoping meeting with the interconnection customer to discuss possible points of interconnection for the proposed generating facility and exchange technical information, which is followed by a series of interconnection studies to evaluate the proposed interconnection in detail.¹⁸ Transmission providers study interconnection requests in three phases: (1) the interconnection feasibility study (feasibility study);¹⁹ (2) the interconnection system impact study (system impact study);²⁰ and (3) the interconnection facilities study (facilities study).²¹ These studies contain the power flow, short circuit, and stability analyses necessary to: (1) identify any adverse impacts on the transmission providers’ transmission system or any affected systems;²² (2) determine the interconnection facilities and network upgrades²³ needed to

reliably interconnect the generating facility; and (3) estimate the interconnection customer’s cost responsibility for these facilities.²⁴ The *pro forma* LGIP requires that transmission providers use reasonable efforts to complete: (1) feasibility studies within 45 calendar days; (2) system impact studies within 90 calendar days; and (3) facilities studies within 90 or 180 calendar days, depending on the interconnection customer’s requested accuracy margin.²⁵

14. At the completion of the facilities study, the *pro forma* LGIP requires the transmission provider to issue a report on the best estimate of the costs to effectuate the requested interconnection and provide a draft generator interconnection agreement to the interconnection customer.²⁶ If the interconnection customer wishes to proceed, after negotiations, the interconnection customer enters into a generator interconnection agreement with the transmission provider or, in specific circumstances, requests that the transmission provider file the agreement with the Commission unexecuted.²⁷ The transmission provider is responsible for the construction of all network upgrades, but, as further discussed below, the interconnection customer has the option to build these facilities in certain circumstances.²⁸

15. Similar to Order No. 2003, in Order No. 2006, the Commission recognized the need for standardized

interconnection of the Large Generating Facility to the Transmission Provider’s Transmission System.” *Pro forma* LGIP section 1; *pro forma* LGIA art. 1.

²⁴ Order No. 2003, 104 FERC ¶ 61,103 at PP 35–37; *pro forma* LGIP sections 6–8. The interconnection customer is responsible for the actual costs of interconnection studies and any necessary restudies. *Pro forma* LGIP section 13.3.

²⁵ *Pro forma* LGIP sections 6.3, 7.4, 8.3.

²⁶ Order No. 2003, 104 FERC ¶ 61,103 at P 38. Section 11.1 of the *pro forma* LGIP requires the transmission provider to tender a draft LGIA to the interconnection customer “in the form of Transmission Provider’s FERC-approved standard form LGIA.”

²⁷ If the transmission provider and interconnection customer execute an LGIA that conforms to the transmission provider’s Commission-approved standard form LGIA, the agreement does not need to be filed with the Commission (if the transmission provider has such a standard form LGIA on file and submits an Electronic Quarterly Report). Alternatively, the transmission provider must file an LGIA with the Commission for review and approval if: (1) the interconnection customer determines that negotiations with the transmission provider over the terms of an LGIA are at an impasse and requests submission of the unexecuted LGIA with the Commission; or (2) the LGIA does not conform to the transmission provider’s Commission-approved standard form LGIA. See Order No. 2003–A, 106 FERC ¶ 61,220 at P 201; *pro forma* LGIP sections 11.2–11.3.

²⁸ Order No. 2003, 104 FERC ¶ 61,103 at PP 351–354; *pro forma* LGIA art. 5.1.3.

¹⁷ *Id.*

¹⁸ Order No. 2003, 104 FERC ¶ 61,103 at P 36; *pro forma* LGIP sections 3.4.4, 6–8.

¹⁹ The *pro forma* LGIP defines a feasibility study as “a preliminary evaluation of the system impact and cost of interconnecting the Generating Facility to the Transmission Provider’s Transmission System.” The scope of a feasibility study is described in section 6 of the *pro forma* LGIP. *Pro forma* LGIP sections 1, 6.

²⁰ The *pro forma* LGIP defines a system impact study as “an engineering study that evaluates the impact of the proposed interconnection on the safety and reliability of Transmission Provider’s Transmission System and, if applicable, an Affected System.” In particular, a system impact study identifies and details “the system impacts that would result if the Generating Facility were interconnected without project modifications or system modifications, focusing on the Adverse System Impacts identified in the [feasibility study], or to study potential impacts, including but not limited to those identified in the Scoping Meeting.” *Id.* section 1.

²¹ The *pro forma* LGIP defines a facilities study as “a study conducted by the Transmission Provider or a third-party consultant for the Interconnection Customer to determine a list of facilities (including Transmission Provider’s Interconnection Facilities and Network Upgrades as identified in the [system impact study]), the cost of those facilities, and the time required to interconnect the Generating Facility with the Transmission Provider’s Transmission System.” The scope of a facilities study is described in section 8 of the *pro forma* LGIP. *Id.* sections 1, 8.

²² The *pro forma* LGIP defines an affected system as an electric system other than the transmission provider’s transmission system that may be affected by the proposed interconnection. *Id.* section 1; *pro forma* LGIA art. 1.

²³ For purposes of this final rule, unless otherwise noted, “network upgrades” refer to interconnection-related network upgrades. More specifically, the *pro forma* LGIP and *pro forma* LGIA provide that, “Network Upgrades shall mean the additions, modifications, and upgrades to the Transmission Provider’s Transmission System required at or beyond the point at which the Interconnection Facilities connect to the Transmission Provider’s Transmission System to accommodate the

¹⁰ Order No. 2003, 104 FERC ¶ 61,103 at P 11. Large generating facilities are defined to mean “a Generating Facility having a Generating Facility Capacity of more than 20 MW.” *Pro forma* LGIP section 1.

¹¹ Order No. 2003, 104 FERC ¶ 61,103 at P 9 (citing *Tenn. Power Co.*, 90 FERC ¶ 61,238 (2000)).

¹² *Id.* P 11.

¹³ 18 CFR 35.28(f)(1) (2022).

¹⁴ While we provide a broad description of the process in the Commission’s *pro forma* LGIP as background here, we recognize that many transmission providers have adopted (and the Commission has accepted) variations to many of the terms in the Commission’s *pro forma* LGIP and *pro forma* LGIA. Consequently, some or many of the details of a particular transmission provider’s generator interconnection procedures may vary considerably from the broad description provided here.

¹⁵ Order No. 2003, 104 FERC ¶ 61,103 at P 35; *pro forma* LGIP sections 3.1, 3.4.

¹⁶ *Pro forma* LGIP section 4.1.

interconnection procedures and agreements for small generating facilities with a capacity of 20 MW or less.²⁹ In addition to establishing a *pro forma* interconnection study process for small generating facilities similar to the process for large generating facilities established in Order No. 2003, the Commission included: (1) a “fast track process”³⁰ that uses technical screens to evaluate a certified small generating facility no larger than 2 MW; and (2) a “10 [kilowatt (kW)] inverter process”³¹ that uses the same technical screens to evaluate a certified inverter-based small generating facility no larger than 10 kW.³² The Commission later issued Order No. 792,³³ in which the Commission revised the *pro forma* SGIP and *pro forma* SGIA to provide for interconnection customers to receive point of interconnection information in advance of submitting an interconnection request, increase the threshold for participation in the fast track process to five MW, and to specifically include electric storage devices.³⁴

16. In response to concerns voiced to the Commission about interconnection queue management, in 2007, the Commission held a technical conference,³⁵ and later issued an order³⁶ addressing interconnection queue issues in RTOs/ISOs. In the order, the Commission noted that some transmission providers were not processing their interconnection queues within the timelines established in the *pro forma* LGIP, and in certain cases, were greatly exceeding them.³⁷ The Commission stated that, although it “may need to [impose solutions] if the RTOs and ISOs do not act themselves,” each RTO/ISO would have an opportunity to work with its stakeholders to develop its own solutions.³⁸ As further discussed below, following the order, multiple RTOs/ISOs submitted queue reform proposals to the Commission, some of which moved away from a so-called “first-come, first-served” approach (whereby

interconnection requests are processed in the order they are received) to a so-called “first-ready, first-served” approach (whereby interconnection requests are processed based on when interconnection customers meet certain project development milestones).³⁹ The reason for this move was to allow interconnection customers with interconnection requests for generating facilities more likely to achieve commercial operation to move faster instead of being delayed by interconnection requests that were higher in the interconnection queue but making limited or no progress towards commercial operation and creating unreasonable queue delays.

17. In 2018, the Commission issued Order No. 845, in which the Commission made the most comprehensive revisions to the *pro forma* LGIP and *pro forma* LGIA since their adoption in Order No. 2003. In Order No. 845, the Commission concluded that reforms to the *pro forma* LGIP and *pro forma* LGIA were needed to mitigate concerns regarding systemic inefficiencies, remedy discriminatory practices, and address recent developments, including changes in the resource mix and emergence of new technologies.⁴⁰ The Commission therefore adopted reforms designed to improve certainty for interconnection customers, promote more informed interconnection decisions, and enhance the generator interconnection process.⁴¹

B. Regional Transmission Planning and Cost Allocation and Generator Interconnection Advance Notice of Proposed Rulemaking

18. On July 15, 2021, the Commission issued an advance notice of proposed rulemaking (ANOPR) in Docket No. RM21–17–000, presenting potential reforms to the Commission’s requirements governing the regional transmission planning and cost allocation and generator interconnection processes.⁴² Specific to the generator interconnection process, the Commission sought comment on whether and which reforms may be necessary to ensure a more purposeful integration of the generator interconnection process with the regional transmission planning and cost

allocation processes, establish a faster and more efficient interconnection queueing process, and promote a more efficient and cost-effective allocation of network upgrade costs.⁴³ For instance, the Commission noted that the cost of network upgrades can depend largely on both the timing of when the interconnection customer enters the interconnection queue and where the interconnection customer proposes to interconnect its generating facility. Therefore, the Commission noted, interconnection customers may submit multiple interconnection requests in an effort to determine the most favorable point of interconnection⁴⁴ that minimizes their network upgrade costs.⁴⁵ The Commission stated that this practice, in turn, may lead to late-stage withdrawals of the excess interconnection requests, which can then impede the transmission provider’s ability to process its interconnection queue in an efficient manner. As a result, the Commission stated that it may be time to consider reforms to the generator interconnection process that would make it more efficient and ensure that generating facilities that are more “ready” than others are not unduly delayed in the interconnection queue.

19. On April 21, 2022, the Commission issued a notice of proposed rulemaking (Transmission Planning and Cost Allocation NOPR) proposing reforms to its existing regional transmission planning and cost allocation requirements in the same proceeding as it issued the ANOPR.⁴⁶ While the Transmission Planning and Cost Allocation NOPR did not address many of the concerns raised by the Commission in the ANOPR with respect to the generator interconnection queue process, the Commission noted in the Transmission Planning and Cost Allocation NOPR that it would continue to review the record and that it expected to address possible inadequacies through subsequent proceedings that propose reforms, as warranted, related to that topic.⁴⁷ The Commission took that next step with the reforms proposed

²⁹ Order No. 2006, 111 FERC ¶ 61,220 at P 36.

³⁰ *Pro forma* SGIP section 2.1.

³¹ *Id.* attach. 5.

³² Order No. 2006, 111 FERC ¶ 61,220 at PP 36, 38–39.

³³ *Small Generator Interconnection Agreements & Procs.*, Order No. 792, 78 FR 73240 (Dec. 5, 2013), 145 FERC ¶ 61,159 (2013), *clarifying*, Order No. 792–A, 146 FERC ¶ 61,214 (2014).

³⁴ See Order No. 792, 145 FERC ¶ 61,159 at P 1.

³⁵ *Interconnection Queuing Practices*, Notice of Technical Conference, Docket No. AD08–2–000 (issued Nov. 2, 2007).

³⁶ *Interconnection Queuing Procs.*, 122 FERC ¶ 61,252 (2008) (2008 Technical Conference Order).

³⁷ *Id.* P 3.

³⁸ *Id.* P 8.

³⁹ See, e.g., *Sw. Power Pool, Inc.*, 128 FERC ¶ 61,114 (2009); *Midwest Indep. Transmission Sys. Operator, Inc.*, 124 FERC ¶ 61,183 (2008); *Cal. Indep. Sys. Operator Corp.*, 124 FERC ¶ 61,292 (2008).

⁴⁰ Order No. 845, 163 FERC ¶ 61,043 at P 7.

⁴¹ *Id.* P 2.

⁴² *Bldg. for the Future Through Elec. Reg'l Transmission Planning & Cost Allocation & Generator Interconnection*, 86 FR 40266 (July 15, 2021), 176 FERC ¶ 61,024 (2021) (ANOPR).

⁴³ *Id.* P 5.

⁴⁴ The *pro forma* LGIP defines point of interconnection as “the point, as set forth in Appendix A to the Standard Large Generator Interconnection Agreement, where the Interconnection Facilities connect to the Transmission Provider’s Transmission System.” *Pro forma* LGIP section 1.

⁴⁵ ANOPR, 176 FERC ¶ 61,024 at P 41.

⁴⁶ *Bldg. for the Future Through Elec. Reg'l Transmission Plan. & Cost Allocation & Generator Interconnection*, 87 FR 26504 (May 4, 2022), 179 FERC ¶ 61,028 (2022).

⁴⁷ *Id.* P 10.

in the NOPR in this proceeding, many of which we adopt in this final rule.

C. Notice of Proposed Rulemaking

20. On June 16, 2022, the Commission issued the NOPR, proposing reforms focused on improving aspects of the *pro forma* LGIP, *pro forma* LGIA, *pro forma* SGIP, and *pro forma* SGIA. The Commission also sought comment on, but did not propose, tariff revisions on other issues.

21. First, the Commission proposed reforms focused on improving interconnection processes to ensure interconnection customers can proceed in an efficient and timely manner.⁴⁸ Among those, the Commission proposed to: (1) require transmission providers to offer an optional informational interconnection study to serve as additional information for prospective interconnection customers in deciding whether to submit an interconnection request and set minimum requirements for transmission providers to publicly post available information pertaining to generator interconnection;⁴⁹ (2) require transmission providers to implement a first-ready, first-served cluster study process that allocates costs associated with cluster studies and identified network upgrades consistent with the discussion below;⁵⁰ and (3) impose more stringent financial commitments and readiness requirements on interconnection customers, including increased study deposits, more stringent site control requirements, a commercial readiness framework, and higher withdrawal penalties.⁵¹ To implement these reforms, the Commission also proposed to require transmission providers to establish a transition process.⁵²

22. Second, the Commission proposed three reforms to increase the speed of interconnection queue processing, including: (1) revisions to eliminate the reasonable efforts standard for interconnection study processing;⁵³ (2) revisions to establish an affected system study process, along with necessary *pro forma* affected system agreements;⁵⁴ and (3) revisions to establish an optional resource solicitation study.⁵⁵

23. Finally, the Commission proposed three reforms to incorporate technological advancements into the interconnection study process. With these reforms, the Commission

proposed to require transmission providers to: (1) increase flexibility in the generator interconnection process by allowing generating facilities to co-locate, allow the interconnection customer to request the addition of a generating facility to an existing interconnection request, increase the availability of surplus interconnection service, and allow interconnection customers to propose operating assumptions for their generating facilities;⁵⁶ (2) incorporate the enumerated alternative transmission technologies into the interconnection study process at the request of the interconnection customer;⁵⁷ and (3) list required modeling standards for inclusion in all interconnection requests that include inverter-based resources (IBRs), as well as require certain performance standards from IBRs during system disturbances.⁵⁸

24. In response to the NOPR, 189 comments were filed.⁵⁹ These comments have informed our determinations in this final rule.

D. Joint Federal-State Task Force on Electric Transmission

25. On June 17, 2021, the Commission established a Joint Federal-State Task Force on Electric Transmission (Task Force) to formally explore broad categories of transmission-related topics.⁶⁰ The Commission explained that the development of new transmission infrastructure implicated a host of different issues, including generator interconnection. The Task Force is comprised of all FERC Commissioners as well as representatives from 10 state commissions nominated by the National Association of Regulatory Utility Commissioners (NARUC), with two originating from each NARUC region.⁶¹ The Task Force convenes for multiple formal meetings annually, which are open to the public. Since its creation and as of the date of issuance of this final rule, the Task Force has met seven times.

26. The discussion at the May 2022 meeting focused on interconnection

issues, including generator interconnection queue processes and backlogs. The Task Force members discussed: the primary challenges preventing more efficient processing of interconnection queues; specific improvements to interconnection processes (such as tighter applicant requirements to enter and remain in the queue, clustering, fast tracking, tighter deadlines on transmission providers completing studies, and minimizing reiterative studies); and how to balance near-term improvements to the interconnection procedures with longer-term regional transmission planning and development.⁶²

II. Overall Need for Reform

A. NOPR

27. In the NOPR, the Commission noted that the serial first-come, first-served study process was adopted at a time when most interconnection requests were for large traditional generating facilities that would use readily available transmission capacity.⁶³ The Commission stated that the continued use of this process in the face of dramatic changes to the electric power industry, principally the surge in interconnection requests, the rapidly changing resource mix, evolving market forces, and the emergence of new technologies, has led to a growing backlog of interconnection requests and study delays for many transmission providers.⁶⁴ The Commission also stated that these interconnection queue backlogs and study delays create uncertainty and inhibit project developers' ability to interconnect generating facilities to the transmission system.⁶⁵ The Commission preliminarily found that the existing *pro forma* LGIP, *pro forma* LGIA, *pro forma* SGIP, and *pro forma* SGIA may be insufficient to ensure that new generating facilities are able to interconnect to the transmission system in a reliable, efficient, transparent, and timely manner and to thereby ensure that rates, terms, and conditions for Commission-jurisdictional services are just, reasonable, and not unduly

⁴⁸ NOPR, 179 FERC ¶ 61,194 at P 4.

⁴⁹ *Id.* PP 42–52.

⁵⁰ *Id.* PP 56–101.

⁵¹ *Id.* PP 104–148.

⁵² *Id.* PP 150–160.

⁵³ *Id.* PP 168–173.

⁵⁴ *Id.* PP 182–215.

⁵⁵ *Id.* PP 223–237.

⁵⁶ *Id.* PP 242–288.

⁵⁷ *Id.* PP 297–302.

⁵⁸ *Id.* PP 328–341.

⁵⁹ Appendix A lists the entities that submitted comments on the NOPR and the shortened names used through this final rule to describe those entities.

⁶⁰ *Joint Fed.-State Task Force on Elec. Transmission*, 175 FERC ¶ 61,224, at PP 1, 6 (2021).

⁶¹ An up-to-date list of Task Force members, as well as additional information on the Task Force, is available on the Commission's website at: <https://www.ferc.gov/TFSOET>. Public materials related to the Task Force, including transcripts from public meetings, are available in the Commission's eLibrary in Docket No. AD21–15–000.

⁶² *Joint Fed.-State Task Force on Elec. Transmission*, Notice of Meeting, Docket No. AD21–15–000 (issued Apr. 22, 2022).

⁶³ NOPR, 179 FERC ¶ 61,194 at P 18.

⁶⁴ *Id.* PP 18–20.

⁶⁵ *Id.* P 19 (citing *Joint Fed.-State Task Force on Elec. Transmission*, Technical Conference, Docket No. AD21–15–000, Tr. 15:21–16:1 (Ted Thomas) (May 6, 2022) (May Joint Task Force Tr.) (“Houston, we have a problem. As stated in the NARUC ANOPR comments, existing methods for interconnecting new resources to the transmission grid are inadequate and inefficient because of the time necessary to interconnect new resources and the corresponding network upgrade costs.”)).

discriminatory or preferential.⁶⁶ Further, because the interconnection queue backlogs and study delays afflicting generator interconnection service nationwide hinder the timely development of new generation and thereby stifle competition in the wholesale electric markets, the Commission also preliminarily found that the Commission's *pro forma* LGIP, *pro forma* LGIA, *pro forma* SGIP, and *pro forma* SGIA result in rates, terms, and conditions in the wholesale electric markets that are unjust, unreasonable, and unduly discriminatory or preferential.

28. The Commission stated that its preliminary findings were based on several features of the Commission's existing generator interconnection procedures and agreements that are of concern, specifically: (1) the information (or lack thereof) available to prospective interconnection customers and the commitments required of them to enter and progress through the interconnection queue; (2) the reliance on a serial first-come, first-served study process and the standard to which transmission providers are held for meeting interconnection study deadlines; (3) the protocols for affected systems studies; (4) the provisions for studying new or hybrid generation technologies and considering alternative transmission technologies; and (5) the performance requirements for non-synchronous generating facilities, including wind, solar, and electric storage facilities.⁶⁷

29. The Commission found that some of the same issues persist in the small generating facility context and, therefore, proposed limited reforms to the *pro forma* SGIP and *pro forma* SGIA to incorporate alternative transmission technologies into the interconnection process and to provide modeling and performance requirements for non-synchronous generating facilities.⁶⁸

B. Comments

30. The vast majority of commenters overwhelmingly agree with the

Commission's preliminary conclusion that there is a need to reform the Commission's *pro forma* interconnection procedures and agreements to ensure that interconnection customers are able to interconnect to the transmission system in a reliable, efficient, transparent, and timely manner, thereby ensuring that rates, terms, and conditions for Commission-jurisdictional services are just, reasonable, and not unduly discriminatory or preferential.⁶⁹ These commenters generally agree that the unprecedented volume of generation in the interconnection queue, which is almost equal to the current U.S. generation fleet, has resulted in severe backlogs in interconnection processes across the country.⁷⁰ For example, the Ohio Commission Consumer Advocate states that "there is an urgent need to clear the current generator

interconnection queue backlog and to facilitate timely and economic interconnection of new resources in a way that responds to current and future market conditions."⁷¹ EEI recognizes that, despite many efforts underway across the country to fix individual transmission provider interconnection queue processes, there is still a need for the Commission to address backlogs and improve certainty in the interconnection queue process.⁷² Several commenters assert that these interconnection backlogs have resulted in commercial uncertainty regarding both the magnitude of identified upgrade costs and the timeline for completion of interconnection studies, delayed project development, increased costs for consumers due to the prevention of new supply from reaching the market, and impaired reliability.⁷³ Senators Hickenlooper and King note that, in the past decade, 23% of proposed generating facilities reached commercial operation, while 72% were withdrawn.⁷⁴ ELCON and APPA-LPPC both argue that uncertainty, on the part of both transmission provider and generator project developer, inevitably leads to an increase in costs to consumers.⁷⁵ U.S. DOE submits a recent report published by the Lawrence Berkeley National Laboratory, which finds that interconnection costs in MISO have escalated as the number of interconnection requests has increased.⁷⁶ Specifically, the report finds that interconnection costs in MISO doubled for projects completed between 2019–2021 compared to projects completed prior to 2018, and cost estimates tripled for projects still active in the queue between the same time periods. Some commenters agree that the existing interconnection rules in the *pro forma* LGIP and *pro forma* LGIA create an incentive for interconnection customers to submit interconnection requests even if they are not prepared to

⁷¹ Ohio Commission Consumer Advocate Initial Comments at 3–4.

⁷² EEI Reply Comments at 3.

⁷³ ACE–NY Initial Comments at 2; AEE Initial Comments at 4; EDF Renewables Initial Comments at 2; ELCON Initial Comments at 2; Fervo Energy Initial Comments at 2; PJM Coalition Initial Comments at 2; Xcel Reply Comments at 1.

⁷⁴ Senators Hickenlooper and King Initial Comments at 1 (citing Joseph Rand et al., Lawrence Berkeley Nat'l Lab., *Queued Up: Characteristics of Power Plants Seeking Transmission Interconnection* (Apr. 2022) (Queued Up 2022), https://emp.lbl.gov/sites/default/files/queued_up_2021_04-13-2022.pdf).

⁷⁵ ELCON Initial Comments at 2; APPA–LPPC Initial Comments at 2.

⁷⁶ U.S. DOE Initial Comments at 1 (citing Joachim Seel et al., Lawrence Berkeley Nat'l Lab., *Interconnection Cost Analysis in the MISO Territory* at 1 (Oct. 2022)).

⁶⁶ *Id.* P. 22 (citing May Joint Task Force Tr. 23:6–11 (Riley Allen) ("Ultimately, this system is not working efficiently now and those inefficiencies translate into costs. It's not just cost on the developers, but I find from my decades of experience that, if there are inefficiencies in the system, they ultimately have to be borne by the loads and ratepayer interests.")).

⁶⁷ *Id.* PP. 23–36 (citing May Joint Task Force Tr. 70:20–71:6 (Matthew Nelson) (analogizing reiterative studies to going to the supermarket to buy ingredients for a recipe without knowing how much the ingredients cost, finding out at the register that they cost too much for your budget, and having to "go home, get a new recipe, and start it all over again"))).

⁶⁸ *Id.* P. 5.

⁶⁹ ACE–NY Initial Comments at 2; ACE–NY Reply Comments at 5; AEE Initial Comments at 3, 5; AEE Reply Comments at 5; AES Initial Comments at 2; Affected Interconnection Customers Initial Comments at 2; Ameren Initial Comments at 2; APPA–LPPC Reply Comments at 2; Avangrid Initial Comments at 6, 8; Bonneville Initial Comments at 3; CESA Initial Comments at 3; CESA Reply Comments at 1; Clean Energy Associations Initial Comments at 8; Clean Energy Buyers Initial Comments at 3; Clean Energy States Initial Comments at 2–3; Colorado Commission Initial Comments at 1; Consumers Energy Initial Comments at 2; Cypress Creek Initial Comments at 1; Dominion Initial Comments at 4; EEI Initial Comments at 2; EEI Reply Comments at 3; EDF Renewables Initial Comments at 1–2; Enel Initial Comments at 2; Energy Keepers Initial Comments at 2; Evergreen Action Initial Comments at 1; Eversource Initial Comments at 2; Fervo Energy Initial Comments at 2; Google Initial Comments at 2; Guzman Energy Initial Comments at 2; Hannon Armstrong Initial Comments at 1; Hydropower Commenters Initial Comments at 5; Illinois Commission Initial Comments at 2–3, 5; Interwest Initial Comments at 3; Interwest Reply Comments at 2; ISO–NE Initial Comments at 2–3; MISO TOs Initial Comments at 2, 6; NARUC Initial Comments at 3; New Jersey Commission Initial Comments at 4–9; NY Commission and NYSEDA Initial Comments at 3; NV Energy Initial Comments at 3; Ohio Commission Consumer Advocate Initial Comments at 3–4; OMS Initial Comments at 2; Ørsted Initial Comments at 5; Pine Gate Initial Comments at 8; PJM Initial Comments at 1, 4; PJM Coalition Initial Comments at 1; RWE Renewables Initial Comments at 1; Senators Hickenlooper and King Initial Comments at 1–2; Shell Initial Comments at 5–6; State Agencies Initial Comments at 1–2; TAPS Initial Comments at 1; Union of Concerned Scientists Reply Comments at 1; UMPA Initial Comments at 1; WATT Coalition Initial Comments at 1; Xcel Initial Comments at 8.

⁷⁰ AEE Initial Comments at 3; Apple Initial Comments at 1; Bonneville Initial Comments at 3; Clean Energy Buyers Initial Comments at 3; Colorado Commission Initial Comments at 2, 8–11; EDF Renewables Initial Comments at 2; Evergreen Action Initial Comments at 1; Eversource Initial Comments at 2; Interwest Initial Comments at 1–2; NV Energy Initial Comments at 2–3; Ohio Commission Consumer Advocate Initial Comments at 3–4; Ørsted Initial Comments at 2; Senators Hickenlooper and King Initial Comments at 1–2; U.S. Chamber of Commerce Initial Comments at 5; UMPA Initial Comments at 1.

move forward with their projects, in order to secure a favorable position in the interconnection queue or in an attempt to obtain locations with available transmission capacity.⁷⁷ They assert that the withdrawal of each speculative interconnection request triggers reassessments and possible restudies by the transmission provider that can increase the timing and interconnection cost for lower-queued interconnection requests. Several commenters point to ambitious climate goals (such as the United States' commitment to reducing net greenhouse gas emissions by 50–52% by 2030 under the Paris Climate Agreement) and argue that: (1) these changes will likely spur greater investment in new generation and exacerbate the delays in processing interconnection requests; and/or (2) without an efficient and transparent interconnection process, none of the clean energy generating facilities intended to meet these goals can be effectively deployed.⁷⁸ Consumers Energy argues that delays in processing interconnection requests will exacerbate resource adequacy challenges.⁷⁹

31. A small subset of commenters, while supporting an overall need for reform, disagree with some of the Commission's preliminary conclusions about the need for reform.⁸⁰ A few other

commenters claim that there is no basis for the Commission's preliminary conclusion that speculative projects that enter the interconnection queue and later withdraw, causing cascading restudies, are responsible for interconnection queue backlogs.⁸¹ A few commenters assert that the Commission did not take into account pertinent factors affecting interconnection queue sizes, such as an increase in the development of smaller, more diverse generating facilities.⁸²

32. Three comments note that various transmission providers use vastly different interconnection procedures from the *pro forma* procedures established in Order No. 2003 and argue that there is an insufficient legal foundation under FPA section 206 to demonstrate that all of these approved interconnection procedures are unjust, unreasonable, and unduly discriminatory or preferential.⁸³ Southern disagrees entirely with the Commission's preliminary conclusion that there is a need for reform.⁸⁴ Southern argues that the Commission based its proposed actions in the NOPR on conjecture and thus failed to provide substantial evidence or engage in reasoned decision-making to demonstrate that the current interconnection processes are unjust and unreasonable.⁸⁵ In addition, Southern contends that the Commission's proposals are arbitrary and capricious because they impose a broadly applicable remedy to a problem that does not exist uniformly.⁸⁶

33. Southern further asserts that the Commission failed to provide any actual evidence that its proposals will reduce interconnection queue backlogs or increase certainty for interconnection customers.⁸⁷

34. Some commenters argue that the sum of the NOPR may actually slow

study processes, increase backlogs, and may unintentionally increase costs to ratepayers.⁸⁸ For example, CAISO asserts that shortening study timelines results in rushed, unreliable studies which would ultimately require more iteration and longer interconnection queue processing times.⁸⁹ Additionally, NextEra argues that the NOPR provides few, if any, solutions relevant to those regions that have already implemented cluster studies yet continue to experience significant study delays.⁹⁰ Further, some commenters oppose any generic one-size-fits-all reform, arguing that queue reform is best left to the regional level.⁹¹

35. Several commenters generally support the suite of proposed reforms in their entirety.⁹² As discussed in detail in each section below discussing individual reforms, most commenters either support specific proposals or suggest that the Commission prioritize certain proposed reforms. For instance, Consumers Energy supports reforms that increase the speed of interconnection queue processing because it claims that the reforms provide clarity for resource planners and interconnection customers as well as improve the reliability of the bulk electric system and the clean energy resource transformation.⁹³ Google urges the Commission to prioritize reforms that provide a level playing field for both utility-backed resources and independent power producer-developed resources.⁹⁴ Google also expresses concern that the layering of increased study deposits, more stringent site control requirements, the proposed commercial readiness requirements, and withdrawal penalties may place undue burden on interconnection customers if the Commission does not also adopt proposals for more publicly available interconnection information, firm study deadlines, and penalties for missed study deadlines.⁹⁵

36. Some commenters support adopting most or all of the limited

⁷⁷ Clean Energy Buyers Initial Comments at 3; Dominion Initial Comments at 4–5; PJM Initial Comments at 12; U.S. Chamber of Commerce Initial Comments at 4–5.

⁷⁸ AEP Initial Comments at 2; Affected Interconnection Customers Initial Comments at 2; Allen Meyer Initial Comments at 1; Apple Initial Comments at 1; Bretton C Little Initial Comments at 1; Colorado Commission Initial Comments at 13–14; EDF Renewables Initial Comments at 2–3 (referencing Inflation Reduction Act, Pub. L. 117–169 (2022)); ELCON Initial Comments at 2; Evergreen Action Initial Comments at 2; GSCE Initial Comments at 5–6; Individual Signatories Initial Comments at 1–2; Interwest Comments at 1–2; National Grid Initial Comments at 2; Payton Alaama Reply Comments at 1; Pine Gate Reply Comments at 3–4; Rick K Lathrop Reply Comments at 1; Shell Initial Comments at 6; State Agencies Initial Comments at 8–9 (citing Int'l Energy Agency, *Net Zero by 2050: A Roadmap for the Global Energy Sector* (2021) <https://www.iea.org/reports/net-zero-by-2050>; The United States' Nationally Determined Contribution (2021) <https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/United%20States%20of%20America%20First/United%20States%20NDC%20April%2021%202021%20Final.pdf>; White House, *FACT SHEET: Biden Administration Jumpstarts Offshore Wind Energy Projects to Create Jobs* (Mar. 29, 2021), <https://www.whitehouse.gov/briefing-room/statements-releases/2021/03/29/fact-sheet-biden-administration-jumpstarts-offshore-wind-energy-projects-to-create-jobs/>; Sue Hilton Initial Comments at 1; Union of Concerned Scientists Reply Comments at 6; Vistra Initial Comments at 4.

⁷⁹ Consumers Energy Initial Comments at 7.

⁸⁰ For instance, Affected Interconnection Customers disagree with the Commission's reference to a nationwide shortage of qualified engineers and contend that the Commission fails to

support this conclusion with any evidence beyond statements made by CAISO and MISO. Affected Interconnection Customers Initial Comments at 14 (citing NOPR, 179 FERC ¶ 61,194 at P 20 n.67).

⁸¹ CREA and NewSun Initial Comments at 35–37 (countering that interconnection requests do not reach commercial operation due to other reasons such as permitting or financing difficulties); NextEra Initial Comments at 4; Public Interest Organizations Initial Comments at 1–7 (arguing that the rate of queue withdrawal has been consistent over the last decade); SEIA Reply Comments at 1.

⁸² AEE Initial Comments at 6–7; Pine Gate Reply Comments at 4; SEIA Reply Comments at 1.

⁸³ Early Adopters Coalition Initial Comments at 1–2; PacifiCorp Initial Comments at 9; Southern Initial Comments at 10–11.

⁸⁴ Southern Initial Comments at 10–12; Southern Reply Comments at 1, 4.

⁸⁵ Southern Initial Comments at 10 (citing *Emera Me. v. FERC*, 854 F.3d 9, 24 (D.C. Cir. 2017)); Southern Reply Comments at 1, 4.

⁸⁶ Southern Initial Comments at 11–12.

⁸⁷ *Id.* at 10; Southern Reply Comments at 5.

⁸⁸ CAISO Initial Comments at 3; Dominion Initial Comments at 7; New York State Department Initial Comments at 2; NextEra Reply Comments at 2; NRECA Initial Comments at 7.

⁸⁹ CAISO Initial Comments at 3.

⁹⁰ NextEra Reply Comments at 7.

⁹¹ Avangrid Initial Comments at 36–37; Southern Initial Comments at 14–15.

⁹² APPA–LPPC Initial Comments at 2–3; APPA–LPPC Reply Comments at 2; Apple Initial Comments at 1; ACORE Initial Comments at 2; Amazon Initial Comments at 2; Evergreen Action Initial Comments at 1–4; Individual Signatories Initial Comments at 1; PJM Coalition Initial Comments at 2.

⁹³ Consumers Energy Initial Comments at 10–11.

⁹⁴ Google Initial Comments at 3.

⁹⁵ *Id.* at 16.

reforms to the *pro forma* SGIP and *pro forma* SGIA proposed in the NOPR.⁹⁶ For instance, Microgrid Resources asserts that including the proposed reforms in the *pro forma* SGIP is necessary to reflect the operating assumptions of, and to provide equitable treatment for, microgrids and other behind-the-meter resources.⁹⁷ Microgrid Resources asserts that, if the Commission succeeds in expediting interconnections for large generating facilities, while small generating facility interconnections languish, it will bias the system against smaller local generating facilities that are the backbone of community resilience.

C. Commission Determination

37. Based on the record, including comments submitted in response to the NOPR, as discussed below, we find that there is substantial evidence to support the conclusion that the existing *pro forma* generator interconnection procedures and agreements are unjust, unreasonable, and unduly discriminatory or preferential.⁹⁸ We therefore adopt the preliminary findings in the NOPR concerning the need for reform⁹⁹ and, pursuant to FPA section 206, conclude that certain revisions to the *pro forma* open access transmission tariff and the Commission's regulations are necessary to ensure rates that are just, reasonable, and not unduly discriminatory or preferential. Specifically, we find that the existing *pro forma* generator interconnection procedures and agreements are insufficient to ensure that interconnection customers are able to interconnect to the transmission system in a reliable, efficient, transparent, and timely manner, thereby ensuring that rates, terms, and conditions for Commission-jurisdictional services are just, reasonable, and not unduly discriminatory or preferential. Absent reform, the current interconnection process will continue to cause interconnection queue backlogs, longer

development timelines, and increased uncertainty regarding the cost¹⁰⁰ and timing of interconnecting to the transmission system. These backlogs and delays, and the resulting timing and cost uncertainty,¹⁰¹ hinder the timely development of new generation and thereby stifle competition in the wholesale electric markets resulting in rates, terms, and conditions that are unjust, unreasonable, and unduly discriminatory or preferential.

38. Indeed, recent data support the Commission's preliminary findings in the NOPR that the dramatic increase in the number of interconnection requests and limited transmission capacity are increasing interconnection queue backlogs across all regions of the country.¹⁰² As of the end of 2022, there were over 10,000 active interconnection requests in interconnection queues throughout the United States, representing over 2,000 gigawatts (GW) of potential generation and storage capacity.¹⁰³ This potential generation is the largest interconnection queue size on record, more than four times the total volume (in GW) of the interconnection queues in 2010, and a 40% increase over the interconnection queue size from just the year prior.¹⁰⁴ These trends are not exclusive to any one region of the country. Instead, every single region has faced an increase in both interconnection queue size and the length of time interconnection customers are spending in the interconnection queue prior to commercial operation in recent years.¹⁰⁵ This is true for RTO/ISO and non-RTO/ISO regions alike. The non-RTO/ISO west and southeast regions both have faced queue size increases ranging from

tripling to a 12-fold increase while also seeing longer timelines between interconnection requests and commercial operation dates.¹⁰⁶ Furthermore, the uncertainty and delays in the interconnection queues have resulted in fewer than 25% of interconnection requests, by capacity, reaching commercial operation between 2000 and 2017 in any region of the country—with some regions as low as 8%.¹⁰⁷

39. Additionally, recent data continue to show that interconnection customers are waiting longer in the interconnection queue before withdrawing their interconnection requests,¹⁰⁸ even as overall interconnection study timelines are increasing in many regions.¹⁰⁹ For example, AEE states that, as of February 2022, all 2,274 projects waiting for an interconnection agreement in the PJM interconnection queue had been waiting for a year or more; 33% (758 projects) had been waiting more than 500 days, 22% (497 projects) have been stuck for more than two years, and 7% (166 projects) have been waiting more than three years.¹¹⁰ NV Energy explains that several western utilities that are not currently part of an RTO/ISO are experiencing an unprecedented high volume of requests in excess of the utility's peak load.¹¹¹ AEE notes that wait times for generating facilities in interconnection queues nationwide have increased from 2.1 years for generating facilities built in 2000–2010 to 3.7 years for those built in 2011–2021.¹¹² And despite efforts to address

¹⁰⁶ *Id.* at 9, 32.

¹⁰⁷ *Id.* at 3, 21.

¹⁰⁸ *Id.* at 25 (reporting that, although the median withdrawal duration has been relatively consistent over time, the mean withdrawal duration and distributions have edged higher in recent years).

¹⁰⁹ *Id.* at 27.

¹¹⁰ AEE Initial Comments at 4 (citing Advanced Energy Economy, "In PJM, Renewable Energy Projects Are Getting Stuck" (February 2022), <https://blog.aee.net/in-pjm-renewable-energy-projects-are-getting-stuck>).

¹¹¹ NV Energy Initial Comments at 2–3. NV Energy explains that it has a peak load of 9,400 MW with an interconnection queue backlog for projects totaling more than 27,000 MW; Idaho Power has a peak load of 3,751 MW with an interconnection queue backlog of over 18,000 MW; PacifiCorp has a peak load of 13,000 MW with an interconnection queue backlog of over 45,000 MW; and APS has a peak load of 7,600 MW with an interconnection queue backlog of over 50,000 MW.

¹¹² AEE Initial Comments at 4 (citing Queued Up 2022); see also ACE–NY Initial Comments at 2 (arguing that the ability of New York to meet its clean energy goals is threatened by an interconnection process that is too slow); Affected System Interconnection Customers Initial Comments at 2 (stating that Affected System Interconnection Customers have navigated the generator interconnection queues of various

⁹⁶ Bonneville Initial Comments at 24 (supporting applying some of the Commission's proposed reforms to the *pro forma* SGIP and *pro forma* SGIA (e.g., commercial readiness requirements), but asking that transmission providers be granted flexibility to determine which reforms should be applicable to small generator procedures and agreements); IREC Initial Comments at 3 (stating that the *pro forma* SGIP lacks the necessary provisions to safely and reliably interconnect storage to the electric grid while enabling its unique operating characteristics); Microgrid Resources Initial Comments at 8–9; Xcel Initial Comments at 19 (supporting applying reforms to small generating facilities requesting energy only interconnection service).

⁹⁷ Microgrid Resources Initial Comments at 8–9.

⁹⁸ 16 U.S.C. 824e(a); 18 CFR 385.206 (2022).

⁹⁹ NOPR, 179 FERC ¶ 61,194 at PP 18–36.

¹⁰⁰ See May Joint Task Force Tr. 74:9–21 (Andrew French) (stating that generator developers complain principally about cost certainty and cost sharing and that "cost certainty is the much bigger issue" given that "an essential element of being able to sell a product is to know what your inputs are so you can market it").

¹⁰¹ See May Joint Task Force Tr. 23:18–25 (Jason Stanek) (expressing frustration with the status quo and agreement that it is "no longer tenable" considering the inability of generators to interconnect in a timely manner, e.g., there are "2,500 projects under study [in the MACRUC region] and about a half of them have been in the queue since at least 2001").

¹⁰² Joseph Rand et al., Lawrence Berkeley Nat'l Lab., *Queued Up: Characteristics of Power Plants Seeking Transmission Interconnection*, at 7–8 (Apr. 2023) (Queued Up 2023), https://emp.lbl.gov/sites/default/files/queued_up_2022_04-06-2023.pdf; see also Order No. 845, 163 FERC ¶ 61,043 at P 305 (requiring transmission providers to post interconnection study metrics). See appendix B to this final rule, which provides an overview of recent data based on reporting by transmission providers in compliance with Order No. 845.

¹⁰³ Queued Up 2023 at 7–8.

¹⁰⁴ *Id.* at 10.

¹⁰⁵ *Id.* at 9, 32.

these challenges,¹¹³ interconnection queue backlogs and delays have persisted and worsened. For generating facilities built in 2022, wait times in the interconnection queue saw a marked increase to now roughly five years.¹¹⁴

40. Delays in the interconnection study process are an important contributor to interconnection queue backlogs nationwide. For instance, based on the recent interconnection study metrics transmission providers posted in compliance with Order No. 845, of the 2,179 interconnection studies completed in 2022, 68% were issued late.¹¹⁵ Furthermore, at the end of 2022, an additional 2,544 studies were delayed (*i.e.*, ongoing and past their deadline).¹¹⁶ All of the RTOs/ISOs except CAISO and 14 non-RTO/ISO transmission providers reported delayed studies at the end of 2022.¹¹⁷

41. Consistent with the NOPR, we find that numerous factors have contributed to the increasing volume of interconnection requests, including a rapidly changing resource mix, market forces, and emerging technologies. For example, the interconnection queues in all parts of the country are now predominantly made up of comparatively new technologies that have operating characteristics and generally shorter construction cycles that were not taken into account when the Commission issued Order No. 2003, such as solar, battery storage, and

transmission providers around the country and experienced firsthand the inefficiencies and delays, which represent the greatest obstacle to achieving commercial operation of a new energy project); GSCE Initial Comments at 5–6 (contending that an average of 6,000 MW of new solar, wind, and batteries must be added each year until 2045 to reach California's electric sector carbon-neutrality requirement, but that over the past decade California has only succeeded with adding an average of 1,000 MW of utility-scale solar and 300 MW of wind to the transmission system each year).

¹¹³ Order No. 845, 163 FERC ¶ 61,043 at P 24.

¹¹⁴ Queued Up 2023 at 31; *see also* Shell Initial Comments at 6 (describing multiple instances of five to six years until execution of an interconnection agreement, four years waiting for an initial “kick-off” call, two years waiting for a feasibility study, three years waiting for a system impact study, and over two years waiting for a facilities study).

¹¹⁵ This is based on data provided by transmission providers in compliance with Order No. 845. See appendix B to this final rule for the underlying data. Note that data from SPP is omitted here and in follow-on references to Order No. 845 data in this determination. This is because during 2022, SPP was transitioning to a new interconnection study process, and thus its data is not comparable to the other transmission providers.

¹¹⁶ *Id.* Note that the vast majority of these studies (2,211) were in PJM.

¹¹⁷ *Id.* CAISO revised the interconnection study deadlines of their queue cluster 14 to account for the unprecedented increase in interconnection requests. *Cal. Indep. Sys. Operator Corp.*, 176 FERC ¶ 61,207 (2021).

hybrid resources, as older, larger generating facilities retire.¹¹⁸ The Colorado Commission notes that solar projects account for roughly half of the cumulative requests in the five RTO/ISO queues and likely an even greater percentage of the most recent requests.¹¹⁹ In addition to the drastic increase in the number of interconnection requests in all regions of the country, evidence shows that interconnection studies have increased in complexity since the Commission issued Order No. 2003, potentially straining transmission provider resources.¹²⁰ At the same time, we find that available transmission capacity has been largely or fully utilized in many regions, creating situations where interconnection customers face significant network upgrade cost assignments to interconnect their proposed generating facilities.¹²¹ For example, as referenced by the U.S. DOE, a recent report finds that interconnection costs in MISO doubled for generating facilities for which the interconnection studies were completed between 2019 and 2021 as compared to those completed prior to 2019, and cost estimates tripled for proposed generating facilities still active in the interconnection queue between the same time periods.¹²² These cost increases are similar to those being faced in NYISO and PJM, where interconnection costs, per kW, have doubled (or more) for recently completed generating facilities.¹²³ As a

¹¹⁸ Queued Up 2023 at 9; *see also* Colorado Commission Comments at 9 (stating that the growth of solar project interconnection requests is a significant cause of the overall supply and demand imbalance across all RTOs/ISOs as well as other regions).

¹¹⁹ Colorado Commission Initial Comments at 9.

¹²⁰ *See, e.g.*, NYISO Initial Comments at 6–7 (stating that “[s]tudies are only becoming more complex with the expanding scope of ISO/RTOs’ interconnection responsibilities”); Xcel Initial Comments at 7 (stating that “in many cases study models with large clusters are difficult to solve . . . Ensuring new transmission lines are realistic and even validating substation designs and locations takes significant work to be done properly”).

¹²¹ *See, e.g.*, ACORE Initial Comments at 2 (noting that “upgrades based on generation interconnection may be a sub-optimal, expensive, and ultimately ineffective way to accomplish transmission expansion”); AEE Initial Comments at 3 (asserting that “inefficient and impeded interconnection processes lead to unacceptable delays and artificially high interconnection costs”); EDF Renewables Initial Comments at 3.

¹²² Joachim Seel et al., *Generator Interconnection Cost Analysis in the Midcontinent Independent System Operator (MISO) Territory*, at 1, 4–5 (2022), https://emp.lbl.gov/interconnection_costs.

¹²³ Julia Mulvaney Kemp et al., *Interconnection Cost Analysis in the NYISO Territory* (2023), <https://emp.lbl.gov/publications/interconnection-cost-analysis-nyiso> (showing that costs have doubled for generating facilities studied since 2017, relative to costs for generating facilities studied

result, we find that this combination of increased volume of diverse interconnection requests and insufficient transmission capacity leading to higher costs to interconnect, which can result in interconnection request withdrawals, has resulted in longer interconnection queue processing times and larger, more delayed interconnection queues.

42. In response to comments asserting that the Commission did not take into account other factors affecting interconnection queue sizes, such as the development of smaller, more diverse generating facilities, in its preliminary findings on the need for reform in the NOPR,¹²⁴ we find that the record shows that interconnection queue sizes are increasing in both number of interconnection requests and in total MW capacity in all regions of the country and such increases are not due to an influx of any particular size of proposed generating facility. Moreover, data show that the median duration for all generating facilities that enter the interconnection queue hovers around 30 months, independent of the size of the interconnection request.¹²⁵

43. Interconnection queue backlogs and delays have created uncertainty for interconnection customers regarding the timing and cost of ultimately interconnecting to the transmission system. We agree with commenters that such uncertainty, on the part of both transmission provider and interconnection customer, may lead to an increase in costs to consumers.¹²⁶ First, delayed interconnection study results or unexpected cost increases can disrupt numerous aspects of generating facility development.¹²⁷ Cost

from 2006 to 2016); Joachim Seel et al., *Interconnection Cost Analysis in the PJM Territory* (2023), <https://emp.lbl.gov/publications/interconnection-cost-analysis-pjm> (showing that costs for recent “complete” generating facilities have doubled on average relative to costs from 2000–2019).

¹²⁴ *See, e.g.*, Pine Gate Reply Comments at 4 (stating that “the days of . . . large, conventional resources are waning as the majority of interconnection requests are now comprised of smaller, more diverse resource” and that “[l]arger interconnection queues are, to a certain extent, a natural byproduct of this change”); SEIA Reply Comments at 1 (contending that interconnection requests have increased in number “because newer projects are smaller and have less capacity” and “[m]ore interconnection requests are needed to integrate the same amount of generation capacity into the grid”).

¹²⁵ Queued Up 2023 at 29.

¹²⁶ *See, e.g.*, Ameren Initial Comments at 2; ELCON Initial Comments at 2; Xcel Initial Comments at 8.

¹²⁷ *See, e.g.*, Interwest Initial Comments at 8 (contending that “[t]he harm to interconnection customers associated with interconnection study delays can be significant and costly, including

uncertainty poses an especially significant obstacle because interconnection customers may not be able to finance substantial increases in unexpected interconnection costs. Second, transmission providers may face uncertainty regarding the size and makeup of the interconnection queue and the commercial viability of the project in the interconnection queue, creating inefficiencies in the study process, increasing interconnection study costs, and delayed study results. Such uncertainty, either on the part of transmission providers or interconnection customers, are ultimately passed through to consumers through higher transmission or energy rates.¹²⁸ Increases in energy rates may result from wholesale customers having limited access to new and more competitive supplies of generation. Conversely, efficient interconnection queues and well-functioning wholesale markets deliver benefits to consumers by driving down wholesale electricity costs.

44. As the interconnection queue backlogs and study delays continue and even increase, we find that the Commission's existing rules contained in the *pro forma* LGIP, *pro forma* LGIA, *pro forma* SGIP, and *pro forma* SGIA result in rates, terms, and conditions for Commission-jurisdictional services that are unjust, unreasonable, and unduly discriminatory or preferential. Not only do the problems described above lead to an inability of interconnection customers to interconnect to the transmission system in a reliable, efficient, transparent, and timely manner, they also hinder the timely development of new generation, thereby stifling competition in the wholesale electric markets. We, therefore, find that reform to the Commission's existing *pro forma* generator interconnection procedures and agreements is necessary.

45. Our findings that the existing *pro forma* LGIP, *pro forma* LGIA, *pro forma* SGIP, and *pro forma* SGIA must be reformed are based on the following features of these existing rules: (1) the information (or lack thereof) available to prospective interconnection customers and the commitments required of them to enter and progress through the interconnection queue; (2) the reliance on a serial first-come, first-served study process and the "reasonable efforts" standard that transmission providers are held to for meeting interconnection study deadlines; (3) the protocols (or lack thereof) for affected system studies;

(4) the provisions for studying new generating facility technologies and evaluating the list of alternative transmission technologies enumerated in this final rule; and (5) the modeling or performance requirements (or lack thereof) for non-synchronous generating facilities, including wind, solar, and electric storage facilities. We discuss each of these five features below.

46. First, we find that existing *pro forma* generator interconnection procedures and agreements fail to contain a process by which an interconnection customer can obtain information about potential interconnection costs at a specific location or point of interconnection prior to submitting an interconnection request. Without this information, it is difficult for interconnection customers to assess the commercial viability of a specific proposed generating facility prior to entering the interconnection queue.¹²⁹ Furthermore, we find that for interconnection customers, the *pro forma* interconnection procedures and agreements fail to include meaningful financial commitment requirements to enter and stay in the interconnection queue and lack of stringent requirements to establish the commercial viability of proposed generating facilities.¹³⁰ As a result, interconnection customers often submit multiple interconnection requests for proposed generating facilities at various points of interconnection, knowing that not all of the proposed generating facilities will reach commercial operation, as an exploratory mechanism to obtain information to allow the interconnection customer to choose to proceed with the interconnection request representing the most favorable site in terms of potential interconnection-related costs.¹³¹ For

¹²⁹ See, e.g., Fervo Energy Initial Comments at 2–3 (stating that "the incidence of interconnection applications simply intended to solicit information discovery from the transmission provider . . . is a significant defect in today's queue process"); Google Initial Comments at 4 (asserting that "there is extreme information asymmetry in the interconnection process," with transmission owners and their affiliates having greater access than independent power producers to information on the relative cost of interconnection at different points).

¹³⁰ See, e.g., Dominion Initial Comments at 4 (stating that "owners of speculative projects remain in the queue process for as long as they possibly can in the hopes that their project somehow becomes viable"); U.S. Chamber of Commerce Initial Comments at 5 (concurring with the NOPR that there is a "lack of stringent financial commitments and readiness requirements on interconnection customers").

¹³¹ See, e.g., Clean Energy Associations Initial Comments at 11 (stating that "[i]n most cases, customers must actually enter the queue to ascertain what upgrade costs they will be responsible for"); Clean Energy Buyers Initial

instance, recent interconnection study metrics posted by transmission providers continue to show that some interconnection customers are withdrawing interconnection requests before any studies are completed.¹³² While interconnection customers may withdraw at any stage of the interconnection process, to do so before any study is completed indicates that interconnection customers may lack information prior to entering the interconnection queue and are entering to obtain valuable information about the commercial viability of their proposed projects vis-à-vis other interconnection customers in the queue or cluster.

47. Second, the existing serial first-come, first-served study process in the *pro forma* LGIP requires transmission providers to process interconnection requests in the order in which the transmission provider receives them. This approach creates incentives for interconnection customers to submit exploratory or speculative interconnection requests pursuant to which interconnection customers seek to secure valuable queue positions as early as possible, even if they are not prepared to move forward with the proposed generating facility. Such generating facilities are often not commercially viable and, thus, the interconnection customers ultimately withdraw from the interconnection queue. We agree with commenters that the withdrawal of speculative interconnection requests that trigger reassessments and possible restudies by the transmission provider can delay the timing and increase the cost to interconnect for lower-queued interconnection requests.

48. In summary, we find that the lack of (1) access of information about a specific location or point of interconnection prior to submitting an interconnection request and (2) meaningful financial commitments in the *pro forma* interconnection procedures and agreements for interconnection customers to enter and stay in the interconnection queue, as well as the existing serial first-come,

Comments at 3 (stating that inefficiencies in the serial study queue are "compounded by exploratory interconnection requests that are based on developers' attempts to obtain locations with available transmission capacity"); NY Commission and NYSERDA Initial Comments at 6–7 (stating that "increased access to valuable information . . . could deter developers from submitting multiple, speculative [interconnection requests]").

¹³² Based on data provided by transmission providers in compliance with Order No. 845 (showing that 35% of withdrawals in 2022 took place before any studies had been completed). See appendix B to this final rule for the underlying data.

liquidated damages if compliance with a commercial operation deadline is at risk").

¹²⁸ Ameren Initial Comments at 2.

first-served study process, all incentivize interconnection customers to submit speculative interconnection requests that contribute to interconnection study backlogs, delays, and uncertainty, and, in turn, unjust and unreasonable Commission-jurisdictional rates.

49. We disagree with commenters' assertions that there is no basis to find that speculative interconnection requests are responsible for interconnection queue backlog and delays. We highlight that more than 70% of interconnection requests were withdrawn from the interconnection queue between 2000 and 2017.¹³³ Although we recognize that there are various reasons an interconnection customer may withdraw its request from the interconnection queue, a withdrawal indicates an inability to reach commercial operation. Because a withdrawal can trigger costly restudies and create uncertainty in the interconnection process for interconnection customers and transmission providers alike, withdrawals of commercially non-viable interconnection requests from the interconnection queue is a significant contributing factor to interconnection queue backlogs and delays.¹³⁴ Late-stage withdrawals of interconnection requests are also increasing.¹³⁵ Late-stage withdrawals present a significant problem, as they can trigger restudies for other interconnection customers that can result in significant increases to the interconnection costs attributed to those customers and the timeline for completion of interconnection studies, which can result in further late-stage withdrawals, thus exacerbating the interconnection queue backlogs and delays.¹³⁶

50. We also find that interconnection queue backlogs and delays, and the accompanying uncertainty, are further compounded because transmission providers have limited incentive to perform interconnection studies in a timely manner. Under the *pro forma* LGIP, transmission providers are held to a "reasonable efforts" standard in completing interconnection studies consistent with their tariff-imposed deadlines. However, this standard offers

significant discretion to the transmission providers in extending their own deadlines. The record demonstrates that a majority of transmission providers across the country regularly fail to meet interconnection study deadlines.¹³⁷ Despite pervasive delays in completing interconnection studies by transmission providers, we acknowledge that transmission providers have faced few, if any, consequences for failing to meet their tariff-imposed study deadlines under the reasonable efforts standard.¹³⁸ This outcome stands in stark contrast to interconnection customers that face financial and commercial consequences due to late interconnection study results and may be considered withdrawn from the interconnection queue for failing to meet their tariff-imposed deadlines.¹³⁹ For these reasons, we find that the existing *pro forma* LGIP requirement for transmission providers to make a reasonable effort to meet interconnection study deadlines contributes to the interconnection study backlogs, delays, and uncertainty that erects barriers to new generation.¹⁴⁰ Therefore, we find that the use of a reasonable efforts standard in the existing *pro forma* LGIP results in Commission-jurisdictional rates that are unjust and unreasonable.

51. Third, the *pro forma* LGIP includes no requirements regarding how or when transmission providers should complete affected system studies. Without requirements, affected system studies often lag behind those completed by the transmission provider to whose transmission system the interconnection customer proposes to interconnect (the so-called host transmission provider) and are sometimes completed very late in the interconnection process, causing an

additional round of delays and cost uncertainty for interconnection customers.¹⁴¹ Additionally, for transmission providers that have procedures for how to complete affected system studies in their tariffs or other documents (e.g., business practice manuals or joint operating agreements), the procedures are not consistent, may be hard for interconnection customers to locate, and may not represent the actual practices in use by the transmission provider, thus still creating uncertainty for interconnection customers. As a result, we find that the lack of consistent requirements for affected system modeling and procedures results in Commission-jurisdictional rates that are unjust, unreasonable, and unduly discriminatory or preferential.

52. Fourth, we find that the Commission's *pro forma* LGIP fails to accommodate the operating characteristics and technical capabilities of electric storage resources when it comes to specific interconnection procedures and modeling. As stated above, the interconnection queues predominantly consist of new technologies which have operating characteristics that differ from synchronous resources and were not anticipated when the Commission established the *pro forma* generator interconnection procedures and agreements in Order Nos. 2003 and 2006. Specifically, electric storage resources can be charged and dispatched on a flexible, as-available basis, and are less likely than synchronous generating facilities to withdraw energy from the transmission system during peak load conditions or discharge during light load conditions.¹⁴² However, the existing *pro forma* generator interconnection procedures and agreements do not contemplate these operating characteristics or technical capabilities of electric storage resources. As a result, we find that electric storage resources

¹³⁷ For example, based on data submitted by transmission providers in compliance with Order No. 845, 80% of transmission providers had delayed studies in at least one of the past three years (2020–2022) and 57% had delayed studies in at least two. *b See also* NARUC Initial Comments at 13 (stating "nearly all transmission providers across the country, including many transmission providers that have implemented queue reforms, regularly fail to meet interconnection study deadlines").

¹³⁸ *See, e.g.,* Clean Energy Associations Initial Comments at 43–44 (stating that "[a]t present, there is no specific incentive for delivering on-time and accurate studies, and late or inaccurate studies bring few if any consequences").

¹³⁹ *See, e.g.,* ACE–NY Initial Comments at 3 ("Project developers have strict deadlines they must adhere to in the interconnection process, with penalties that include the forced withdrawal of the project from the queue.").

¹⁴⁰ *See, e.g.,* NARUC Initial Comments at 13–14 (contending that "the tendency to miss deadlines introduces uncertainty in a process that is important to bringing new generation online in a timely and cost-effective manner").

¹⁴¹ *See, e.g.,* MISO Initial Comments at 72 (stating that "the need to wait for affected systems studies is the cause of the majority of delays in the MISO study process"); May Joint Task Force Tr. 65:2–8 (Dan Scripps) (citing affected systems studies as "a growing source of delay and cost uncertainty for interconnection customers, both in terms of just the timelines involved and the difficulty in pinning those down").

¹⁴² *See, e.g.,* Bonneville Initial Comments at 22–23 (stating that "storage resources are less likely to charge during peak load conditions or discharge during light load conditions, and . . . those considerations can be factored into assumptions used in interconnection studies"); NARUC Initial Comments at 37 (stating that "assuming that an energy storage device will withdraw energy during peak demand . . . fails to recognize that those resources are likely to be highly responsive to price signals from the transmission provider and can improve reliability").

¹³³ Queued Up 2023 at 18 (reporting that 72% of all interconnection requests submitted from 2000–2017 were withdrawn).

¹³⁴ *See, e.g.,* Ohio Commission Consumer Advocate Initial Comments at 8 (stating that "[e]ach withdrawn project entails PJM restudy on lower-queued projects, which delays the processing of new service queues and may have the consequence of a cascade of withdrawals").

¹³⁵ Queued Up 2023 at 22.

¹³⁶ *See, e.g.,* AEE Initial Comments at 4–5; Queued Up 2023 at 22.

(whether standalone, co-located generating facilities, or part of a hybrid generating facility), may be studied under inappropriate operating assumptions (e.g., charging at full capacity during peak load conditions) that result in assigning unnecessary network upgrades and increased costs to interconnection customers. Therefore, we find that the Commission's *pro forma* LGIP's lack of ability to modify operating assumptions for electric storage resources results in Commission-jurisdictional rates that are unjust, unreasonable, and unduly discriminatory or preferential.

53. Additionally, the record supports a finding that the existing *pro forma* interconnection procedures regarding material modifications do not provide for consistent evaluation of technology additions to an existing interconnection request.¹⁴³ We find that the record demonstrates that automatically deeming a request to add a generating facility to an existing interconnection request to be a material modification creates a significant barrier to access to the transmission system.¹⁴⁴ As a result, we find the existing *pro forma* LGIP and *pro forma* LGIA results in Commission-jurisdictional rates that are unjust and unreasonable.

54. Finally, the record supports a finding that the Commission's *pro forma* LGIP and *pro forma* SGIP fail to require the consideration of alternative transmission technologies that can be deployed more quickly to be used as network upgrades in place of, and at a lower cost than, traditional network upgrades.¹⁴⁵ In addition, commenters contend that some alternative transmission technologies could provide substantial benefits by resolving thermal overloads and avoiding voltage collapse, allowing for better use of the existing transmission system, improving reliability, and reducing interconnection request withdrawals, restudies, and overall interconnection delays.¹⁴⁶ We

find that failing to require transmission providers to evaluate the list of alternative transmission technologies enumerated in this final rule results in interconnection customers paying more than is just and reasonable to reliably interconnect new generating facilities, resulting in Commission-jurisdictional rates that are unjust, unreasonable, and unduly discriminatory or preferential. Because the benefits of the enumerated alternative transmission technologies identified above are present across all interconnection processes, regardless of the size of the interconnection request, we find that the failure to evaluate the enumerated alternative transmission technologies results in both the *pro forma* LGIP and *pro forma* SGIP being unjust, unreasonable, and unduly discriminatory or preferential.

55. Fifth, we find that the Commission's existing *pro forma* LGIP and *pro forma* SGIP do not include a modeling requirement for non-synchronous generating facilities, which is necessary to enable the transmission provider to assess and model the facility's ability to respond appropriately to transmission system disturbances. These modeling requirements include: (1) a validated, user-defined root mean square (RMS) positive sequence dynamic model; (2) an appropriately parameterized, generic library RMS positive sequence dynamic model; and (3) a validated electromagnetic transient (EMT) model, if the transmission provider performs an EMT study as part of the interconnection study process. Additionally, we find that accurate and validated models are necessary to address study delays and to ensure that transmission providers identify the necessary interconnection facilities and network upgrades to accommodate the interconnection request and appropriate assignment of interconnection costs. As a result, we find that the lack of a modeling requirement for non-synchronous generating facilities in the

pro forma LGIP and *pro forma* SGIP results in rates that are unjust, unreasonable, and unduly discriminatory or preferential.

56. Furthermore, the physical characteristics of synchronous generating facilities allow them to continue to inject electric current during transmission system disturbances, as required by the *pro forma* LGIA and *pro forma* SGIA.¹⁴⁷ However, non-synchronous generating facilities do not face a comparable requirement and many cease injecting current through "momentary cessation," which creates reliability issues on the transmission system.¹⁴⁸ Moreover, without requirements for non-synchronous generating facilities to remain connected to and synchronized with the transmission system, interconnection studies may not accurately model expected behavior and identify the appropriate interconnection facilities and network upgrades to accommodate the interconnection request, skewing the assignment of interconnection costs. As a result, we find that the lack of comparable requirements for non-synchronous generating facilities to remain "connected to and synchronized with the [t]ransmission [s]ystem" in the *pro forma* LGIA and *pro forma* SGIA results in rates that are unjust, unreasonable, and unduly discriminatory or preferential.

57. In response to commenters that express broad opposition to the need for reform, we disagree with assertions that the existence of regional variation in interconnection procedures across the country creates an insufficient legal foundation under FPA section 206 to demonstrate that rates are unjust, unreasonable, and unduly discriminatory or preferential. Similarly, we disagree with assertions that reforms to the *pro forma* generator interconnection procedures and agreements are arbitrary and capricious because the problems identified herein do not exist uniformly. As an initial matter, the "Commission may rely on 'generic' or 'general' findings of a systemic problem to support imposition

¹⁴³ See, e.g., NARUC Initial Comments at 35 (stating that the "loss of queue position as a result of adding a generating facility that does not increase the requested service level or cause reliability issues . . . is an inefficient and discriminatory outcome").

¹⁴⁴ See, e.g., AEE Initial Comments at 40–41; Public Interest Organizations Initial Comments at 45–47; SEIA Initial Comments at 38–39.

¹⁴⁵ See, e.g., NARUC Initial Comments at 38 (stating that "failing to consider alternative transmission technologies that can be deployed both more quickly and at lower costs than network upgrades may render Commission-jurisdictional rates unjust and unreasonable"); OMS Initial Comments at 19 (agreeing that "failing to consider these alternative transmission technologies runs the risk of implementing longer lead-time network upgrades at a higher cost").

¹⁴⁶ See, e.g., AEE Initial Comments at 42 (stating that alternative transmission technologies "provide

benefits beyond potential costs savings, including maximizing limited rights-of-way and potentially avoiding or minimizing environmental and property impacts that can bog down siting and permitting proceedings"); Ohio Commission Consumer Advocate Initial Comments at 15 (stating that "[t]hese grid-enhancing technologies ('GETs') can improve operations, enhance system reliability, contribute to capacity, and more" and "[s]ome [grid-enhancing technologies] could provide substantial benefits by resolving thermal overloads and avoiding voltage collapse, among other things"); WATT Coalition Initial Comments at 2 (referring to the report *Unlocking the Queue with Grid Enhancing Technologies* that showed that application of the three grid-enhancing technologies in the Kansas and Oklahoma transmission systems would enable twice as much renewable energy to interconnect out of the queues without any traditional transmission upgrades.).

¹⁴⁷ *Pro forma* LGIA art. 9.7.3 and *pro forma* SGIA art. 1.5.7 require synchronous generating facilities to remain "connected to and synchronized with" the transmission system during system disturbances.

¹⁴⁸ See, e.g., NERC Initial Comments at 9 (stating that "improper planning and operation of [non-synchronous resources] can pose a significant risk to . . . reliability" and adding that "risk mitigation measures . . . have been inconsistently adopted by industry"); MISO TOs Initial Comments at 32–33 (concurring with the Commission that "with more and more non-synchronous generation facilities entering the interconnection queue, the lack of a requirement for such resources to respond to system disturbances becomes 'more consequential'").

of an industry-wide solution.”¹⁴⁹ That some interconnection processes may fare better in the face of industry-wide challenges would be “as unastonishing as it is irrelevant.”¹⁵⁰ The Commission may reasonably rely on rulemaking to address the systemic drivers leading to widespread interconnection queue backlogs and delays, notwithstanding regional variation among interconnection procedures.

58. Moreover, as noted above, every region of the country is seeing an increase in both interconnection queue size and the length of time interconnection customers are spending in the interconnection queue prior to commercial operation in recent years.¹⁵¹ Furthermore, the uncertainty and delays in the interconnection queues have resulted in fewer than 25% of interconnection requests, by capacity, reaching commercial operation between 2000 and 2017 in any region of the country—with some regions as low as 8%.¹⁵² For example, only 10% of interconnection requests, by capacity, have reached commercial operation in the non-RTO/ISO southeast region between 2000 and 2017.¹⁵³

Additionally, the challenges being faced across the country will be further compounded in the future given the recent spikes in interconnection queue sizes. In the non-RTO/ISO southeast region, the interconnection queue size has more than tripled between 2014 and 2022, with the increase predominantly made up of solar, storage, and hybrid generating facilities, adding potential complexity to future interconnection queue study processes.¹⁵⁴ To the extent existing *pro forma* interconnection procedures, such as first-come, first-served study processes, have worked in the past for smaller or less complex queues, such experience is not indicative of what will be necessary in the future to ensure that a growing number of interconnection requests are processed in a reliable, efficient, transparent, and timely manner.¹⁵⁵ Finally, as recognized in Order No. 2003, interconnection queue delays may “provide[] an unfair advantage to utilities that own both transmission and generation facilities,”¹⁵⁶ making it

exceedingly necessary that interconnection delays are addressed in all regions of the country, especially those where transmission providers continue to own both transmission and generation.¹⁵⁷ As discussed above, because interconnection queue backlogs and delays afflict generator interconnection service nationwide, which hinders the timely development of new generation and thereby stifles competition in the wholesale electric markets, reforms are necessary to ensure Commission-jurisdictional rates are just, reasonable, and not unduly discriminatory or preferential.

59. We are not persuaded by commenters’ concerns that the reforms proposed in the NOPR, many of which we adopt in this final rule, will be counterproductive in addressing the need for reform. As discussed in more detail throughout this final rule, we believe that the reforms adopted herein, as a whole, will improve the efficiency of study processes, reduce interconnection queue backlogs, and thereby ensure just, reasonable, and not unduly discriminatory or preferential rates. We believe that, on balance, the reforms will produce efficiencies by, for example, reducing speculative interconnection requests and interconnection request withdrawals, which in turn will reduce the time and resources spent in interconnection studies and restudies thereby decreasing interconnection queue backlogs and delays. Additionally, the majority of the individual reforms that the Commission proposed in the NOPR and we adopt in this final rule have already been implemented in one or more regions in order to improve the interconnection process, demonstrating incremental improvements. This final rule uses some of these individual and incremental improvements as a basis for a broad suite of reforms that, in their entirety, have not yet been adopted by any region and we believe will ensure that interconnection customers are able to interconnect to the transmission system in a reliable, efficient, transparent, and timely manner. In some cases, such as for the commercial readiness reforms adopted in this final rule, we have significantly modified the NOPR proposal based on comments received.

60. Having concluded that the existing *pro forma* generator interconnection procedures and agreements are unjust, unreasonable, and unduly discriminatory or preferential, we turn, as we are required

to do under FPA section 206,¹⁵⁸ to determining the replacement rate, described—at some length—below.

III. Reforms

A. Reforms To Implement a First-Ready, First-Served Cluster Study Process

1. Interconnection Information Access

a. Need for Reform

i. NOPR

61. The Commission noted its concern regarding the lack of information available to prospective interconnection customers regarding potential interconnection costs prior to submitting an interconnection request.¹⁵⁹ The Commission stated that, without this information, it is difficult for interconnection customers to assess the viability of a specific proposed generating facility. Subsequently, interconnection customers submit multiple speculative interconnection requests in an attempt to obtain information through the system impact study process about the costs associated with various project configurations. The Commission preliminarily found that the Commission’s *pro forma* LGIP and *pro forma* LGIA are unjust, unreasonable, and unduly discriminatory or preferential and that reforms are needed to allow interconnection customers to interconnect in a reliable, efficient, transparent, and timely manner, thereby ensuring that rates, terms, and conditions for Commission-jurisdictional services are just, reasonable, and not unduly discriminatory or preferential.¹⁶⁰

ii. Comments

62. Several commenters contend that it is a rational response to a lack of pre-interconnection queue information for interconnection customers to submit multiple interconnection requests to gain information on which interconnection sites are favorable and hedge risks, which leads to withdrawals that exacerbate unmanageable interconnection queue backlogs.¹⁶¹ ELCON and Environmental Defense

¹⁴⁹ *S.C. Pub. Serv. Auth. v. FERC*, 762 F.3d 41, 67 (D.C. Cir. 2014) (quoting *Interstate Nat. Gas Ass’n of Am. v. FERC*, 285 F.3d 18, 37 (2002)).

¹⁵⁰ *Id.* (quoting *Wis. Gas v. FERC*, 770 F.2d 1144, 1157 (D.C. Cir. 1985)).

¹⁵¹ Queued Up 2023 at 9, 32.

¹⁵² *Id.* at 3, 21.

¹⁵³ *Id.* at 21.

¹⁵⁴ *Id.* at 9.

¹⁵⁵ See, e.g., Public Interest Organization Initial Comments at 17; R Street Initial Comments at 3.

¹⁵⁶ Order No. 2003, 104 FERC ¶ 61,103 at P 11.

¹⁵⁷ See, e.g., Pine Gate Initial Comments at 15; AEE Reply Comments at 22.

¹⁵⁸ 16 U.S.C. 824e(a); see, e.g., *FERC v. Electric Power Supply Ass’n*, 577 US 260, 277 (2016) (“If FERC sees a violation of [the just and reasonable] standard, it must take remedial action.”)

¹⁵⁹ NOPR, 179 FERC ¶ 61,194 at P 40.

¹⁶⁰ *Id.* P 39.

¹⁶¹ AES Initial Comments at 3; Affected Interconnection Customers Initial Comments at 30; Clean Energy Buyers Initial Comments at 5–6; CREA and NewSun Initial Comments at 45; Environmental Defense Fund Initial Comments at 3; ELCON Initial Comments at 3; Northwest and Intermountain Initial Comments at 5; Public Interest Organizations Initial Comments at 18.

Fund argue that the lack of sufficient information and unexpected cost escalation are the primary reasons interconnection requests are withdrawn, leading to delays and inefficiencies.¹⁶²

63. Many commenters agree with the goal of providing additional information prior to entering the interconnection queue.¹⁶³ Some commenters state that additional information prior to entering the interconnection queue is beneficial,¹⁶⁴ in particular access to information on potential network upgrades and the cost and time to interconnect.¹⁶⁵ Many commenters expect that potential interconnection customers' access to additional information prior to entering the interconnection queue will reduce speculative interconnection requests, thus promoting reliability and cost savings by encouraging more optimal interconnection requests that can be processed more efficiently and at lower overall cost.¹⁶⁶

64. Several commenters note the importance of additional interconnection information access in light of the other reforms proposed in the NOPR. AES contends that it would be inequitable for the Commission to increase security deposits to stay in the interconnection queue under the NOPR proposal to increase study and LGIA deposits without requiring transmission providers to provide sufficient information to interconnection

customers.¹⁶⁷ Vistra asserts that the proposals to provide additional information will complement the exclusive site control proposals and provide an avenue for prospective interconnection customers to select the most viable sites on which to obtain rights and develop a location, which is a costly and time-consuming process, before entering the interconnection queue.¹⁶⁸ Northwest and Intermountain argue that, in order for the other proposed reforms in the NOPR to be effective, potential interconnection customers must have a solution to the problem of identifying optimal interconnection locations and configurations that is timely, cost-effective, and accurate.¹⁶⁹

65. Google contends that pre-queue information is necessary because there is an extreme information asymmetry between independent power producers and transmission owners and their generating affiliates, which have greater access to planning information, including load growth, relative cost of interconnecting at different points, points of chronic congestion where upgrades might be needed, and planned local upgrades.¹⁷⁰ Google asserts that this information asymmetry is particularly pronounced in the non-RTO/ISO regions, and allows transmission owners and their affiliates to identify the best locations for interconnection more quickly than independent power producers.

66. On the other hand, Dominion argues that there is no evidence in the record that a lack of information is slowing down the interconnection queue process or that transmission providers are not engaged in good faith reviews of interconnection requests.¹⁷¹ According to Dominion, the Commission should focus on making the interconnection process more efficient and speedier, and the best way to achieve these goals is through the first-ready, first-served cluster study reform. While APPA-LPPC support transparency in the generator interconnection process and share the Commission's view that the availability of transmission system information should reduce the incentive to submit speculative interconnection requests, they argue that sufficient information is currently publicly available.¹⁷²

iii. Commission Determination

67. We find that, absent reforms to require transmission providers to provide additional interconnection information, which can be used by interconnection customers prior to submitting an interconnection request, speculative interconnection requests will likely remain at current levels and continue to contribute to interconnection study delays and add costs to the interconnection process. Although submitting multiple interconnection requests to gain information may be a rational response to a lack of pre-interconnection queue information, this practice increases interconnection study delays.¹⁷³ We also agree with commenters that additional access to interconnection information is a valuable goal¹⁷⁴ as it can increase the likelihood that an interconnection request is viable when submitted. We disagree with commenters that current information requirements are sufficient.¹⁷⁵ While certain information is currently available through the feasibility study process, as part of our reforms discussed below, we eliminate the feasibility study. Therefore, we find it necessary to provide a means for interconnection customers to obtain additional information prior to entering the interconnection queue. We concur with comments that additional access to interconnection information prior to entering the interconnection queue is important for interconnection customers to make informed decisions, particularly given the increased requirements for interconnection customers adopted in this final rule, such as increased study deposits and site control, as discussed

¹⁶² Environmental Defense Fund Initial Comments at 3; ELCON Initial Comments at 4.

¹⁶³ ACOE Reply Comments at 3; AEE Initial Comments at 9; AEP Initial Comments at 12; AES Initial Comments at 3; Affected Interconnection Customers Initial Comments at 30; APS Initial Comments at 4; Bonneville Initial Comments at 5; Clean Energy Buyers Initial Comments at 7; CREA and NewSun Initial Comments at 44; ELCON Initial Comments at 3–4; Enel Initial Comments at 9; Google Initial Comments at 15; MISO Initial Comments at 20–21; NARUC Initial Comments at 4; NESCOE Reply Comments at 2–3; NY Commission and NYSERDA Initial Comments at 6–8; NYISO Initial Comments at 16; NYTOs Initial Comments at 8; Pacific Northwest Utilities Initial Comments at 13; PJM Initial Comments at 45; Puget Sound Initial Comments at 5; WAPA Initial Comments at 5.

¹⁶⁴ AEP Initial Comments at 12; APS Initial Comments at 4.

¹⁶⁵ EEI Reply Comments at 7–8; New Jersey Commission Initial Comments at 23; NV Energy Initial Comments at 13.

¹⁶⁶ Affected Interconnection Customers Initial Comments at 30; Clean Energy States Initial Comments at 3; Duke Southeast Utilities Initial Comments at 6; Environmental Defense Fund Initial Comments at 3; ELCON Initial Comments at 3–4; Fervo Energy Initial Comments at 2–3; Google Initial Comments at 4–5; NARUC Initial Comments at 4–5; NESCOE Reply Comments at 3; New Jersey Commission Initial Comments at 20–22; New York State Department Initial Comments at 8; Pacific Northwest Utilities Initial Comments at 13; Public Interest Organizations Initial Comments at 18; Puget Sound Initial Comments at 5; SDG&E Initial Comments at 3–4.

¹⁶⁷ AES Initial Comments at 13.

¹⁶⁸ Vistra Initial Comments at 4.

¹⁶⁹ Northwest and Intermountain Initial Comments at 9.

¹⁷⁰ Google Initial Comments at 3–4.

¹⁷¹ Dominion Reply Comments at 8–9.

¹⁷² APPA-LPPC Initial Comments at 11.

¹⁷³ See AES Initial Comments at 3; Affected Interconnection Customers Initial Comments at 30; Clean Energy Buyers Initial Comments at 5–6; CREA and NewSun Initial Comments at 45; Environmental Defense Fund Initial Comments at 3; ELCON Initial Comments at 3; Northwest and Intermountain Initial Comments at 5; Public Interest Organizations Initial Comments at 18.

¹⁷⁴ ACOE Reply Comments at 3; AEE Initial Comments at 9; AEP Initial Comments at 12; AES Initial Comments at 3; Affected Interconnection Customers Initial Comments at 30; APS Initial Comments at 4; Bonneville Initial Comments at 5; Clean Energy Buyers Initial Comments at 7; CREA and NewSun Initial Comments at 44; ELCON Initial Comments at 3–4; Enel Initial Comments at 9; Google Initial Comments at 15; MISO Initial Comments at 20–21; NARUC Initial Comments at 4; NESCOE Reply Comments at 2–3; NY Commission and NYSERDA Initial Comments at 6–8; NYISO Initial Comments at 16; NYTOs Initial Comments at 8; Pacific Northwest Utilities Initial

Comments at 13; PJM Initial Comments at 45; Puget Sound Initial Comments at 5; WAPA Initial Comments at 5.

¹⁷⁵ APPA-LPPC Initial Comments at 9.

below.¹⁷⁶ We also agree that commenters raise a valid concern that an information asymmetry exists between independent power producers and transmission owner affiliates, in particular in non-RTO/ISO regions.¹⁷⁷

b. Informational Interconnection Study

i. NOPR Proposal

68. In the NOPR, the Commission proposed to revise the Commission's *pro forma* LGIP to require transmission providers to offer an informational interconnection study for prospective interconnection customers.¹⁷⁸ The Commission proposed that the informational interconnection study would provide cost estimates for the transmission provider's interconnection facilities and network upgrade costs specific to the interconnection scenario detailed in the study agreement. The Commission also proposed to include new definitions for an informational interconnection study and informational interconnection study agreement.

69. Under the Commission's proposal, prospective interconnection customers could request up to five separate informational interconnection studies at a time.¹⁷⁹ The Commission explained that each configuration of an interconnection request would require a separate informational interconnection study. The Commission proposed that the informational interconnection study would be at the interconnection customer's expense, and each study would require a \$10,000 deposit, subject to a true-up based on actual study costs.

70. The Commission proposed that, within seven business days of the receipt of a prospective interconnection customer's request for an informational interconnection study, the transmission provider would have to provide the prospective interconnection customer with an informational interconnection study agreement.¹⁸⁰ The Commission explained that the informational interconnection study agreement would specify the technical data that the prospective interconnection customer must provide and an estimate of the expected costs of the study, including, to the extent known by the transmission provider, an estimate of the study costs expected to be incurred by any relevant affected systems. Under the proposal, the prospective interconnection customer would have 10 business days

to execute the agreement and deliver it to the transmission provider, along with the relevant technical data and study deposit, after which the transmission provider would have 45 calendar days to complete the study.

71. The Commission proposed that the informational interconnection study would consist of a sensitivity analysis based on the assumptions specified in the informational interconnection study agreement.¹⁸¹ Under the proposal, the informational interconnection study would identify potential interconnection facilities and network upgrades that may be required to interconnect the prospective interconnection customer's proposed generating facility, including an approximation of the costs of such interconnection facilities and network upgrades. The Commission noted that the transmission provider would also coordinate with affected systems that may be impacted by the prospective interconnection customer's request to provide information on affected systems-related issues.

72. The Commission proposed an informational interconnection study agreement form, which explains that the informational interconnection study is performed solely for informational purposes and is not binding on either party.¹⁸² The proposed agreement also requires the study report to provide specific information, including, at a minimum: (1) preliminary identification of any circuit breaker short circuit capability limits exceeded; (2) preliminary identification of any thermal overload or voltage limit violations; and (3) estimated network upgrade costs related to the identified overloads and violations.

73. The Commission sought comment on: (1) whether the informational interconnection study, as proposed, would provide prospective interconnection customers with sufficient and timely information to inform decision-making prior to submitting an interconnection request; (2) whether transmission providers should be required to establish a request window of a limited number of days each year in which potential interconnection customers can request an optional informational interconnection study; and (3) the burdens on transmission providers of conducting informational studies and whether other options, such as the proposal discussed below for public interconnection information, might strike a better balance of providing

interconnection customers with useful information while making efficient use of transmission provider resources.¹⁸³

74. Additionally, the Commission proposed to add new section 3.1.2 to the *pro forma* LGIP, which provides that interconnection customers evaluating different options (such as different sizes, sites, or voltages) are encouraged but not required to use the new informational interconnection study proposed in the NOPR before entering the cluster study.¹⁸⁴

ii. Comments

(a) Comments in Support

75. Several commenters support the NOPR proposal to require transmission providers to offer an informational interconnection study to prospective interconnection customers.¹⁸⁵ Several commenters agree that the informational interconnection study proposal could reduce the number of speculative or other interconnection requests¹⁸⁶ and improve the efficiency of siting decisions.¹⁸⁷ Some commenters expect that these changes will have other benefits for the interconnection process, including cost savings from fewer and more viable interconnection requests,¹⁸⁸ a reduced need for project withdrawals and queue restudies,¹⁸⁹ and reduced burden on transmission providers, which will result in fewer interconnection study delays.¹⁹⁰

76. MISO and Fervo Energy state that it is helpful for a prospective interconnection customer to compare how various MW sizes, points of interconnection, or other scenarios could affect costs, especially for prospective interconnection customers that cannot perform such analysis in house, and that the NOPR's

¹⁸³ *Id.* PP 47–48.

¹⁸⁴ *Id.* P 66.

¹⁸⁵ Affected Interconnection Customers Initial Comments at 30; Clean Energy States Initial Comments at 4; Consumers Energy Initial Comments at 3; Duke Southeast Utilities Initial Comments at 6; Evergreen Action Initial Comments at 3; Fervo Energy Initial Comments at 2; Illinois Commission Initial Comments at 6; Interwest Initial Comments at 4, 7; NESCOE Reply Comments at 2; Public Interest Organizations Initial Comments at 18; Southern Initial Comments at 28; Tesla Initial Comments at 4; Tri-State Initial Comments at 5.

¹⁸⁶ Fervo Energy Initial Comments at 2–3; Google Initial Comments at 4; NRECA Initial Comments at 13; NY Commission and NYSEDA Initial Comments at 6–8.

¹⁸⁷ Duke Southeast Utilities Initial Comments at 6–7; ISO-NE Initial Comments at 18; NARUC Initial Comments at 5; NRECA Initial Comments at 13; Pine Gate Initial Comments at 13–14; Tesla Initial Comments at 4.

¹⁸⁸ Evergreen Action Initial Comments at 3; NARUC Initial Comments at 5.

¹⁸⁹ Evergreen Action Initial Comments at 3; NRECA Initial Comments at 13.

¹⁹⁰ Google Initial Comments at 4.

¹⁷⁶ AES Initial Comments at 13; Northwest and Intermountain Initial Comments at 9; Vistra Initial Comments at 4.

¹⁷⁷ Google Initial Comments at 3–5.

¹⁷⁸ NOPR, 179 FERC ¶ 61,194 at P 42.

¹⁷⁹ *Id.* P 43.

¹⁸⁰ *Id.* P 44.

¹⁸¹ *Id.* P 45.

¹⁸² *Id.* P 46.

informational interconnection study proposal would assist in these goals.¹⁹¹ Pacific Northwest Organizations argue that, without upfront interconnection cost information, independent power producers may be discouraged from entering the interconnection queue if they are subjected to higher withdrawal fees, which may result in preventing them from being considered in request for proposals (RFPs) in the Pacific Northwest.¹⁹²

77. Some commenters stress the importance of the informational interconnection study in light of the other reforms proposed in the NOPR. For instance, Northwest and Intermountain aver that the informational study will be the primary resource for interconnection customers to demonstrate the feasibility and cost effectiveness of their interconnection plan and will serve as the foundation for subsequent negotiations for the documents that will establish commercial readiness of their project for the cluster study process.¹⁹³ Pacific Northwest Organizations assert that the NOPR's proposed commercial readiness framework would be problematic in the region without something like the informational interconnection study to discover costs before entering the queue.¹⁹⁴

78. Several commenters are generally supportive of the NOPR proposal but either (1) offer qualifications to that support¹⁹⁵ or (2) request specific changes to the proposal.¹⁹⁶

(b) Comments in Opposition

79. Many commenters oppose the NOPR proposal to require transmission providers to offer an informational interconnection study to prospective

interconnection customers.¹⁹⁷ Many commenters argue that the informational interconnection study proposal could be a burden or divert resources,¹⁹⁸ which they contend would increase delays for the interconnection queue and other studies.¹⁹⁹ Dominion

¹⁹⁷ AECI Initial Comments at 3; AEP Initial Comments at 7; AEP Reply Comments at 2; APPA-LPPC Initial Comments at 3; Avangrid Initial Comments at 21; Bonneville Initial Comments at 3; CAISO Initial Comments at 5; Clean Energy Associations Initial Comments at 13; Dominion Reply Comments at 5; EEI Initial Comments at 11; EEI Reply Comments at 7–8; Enel Initial Comments at 9; ENGIE Initial Comments at 2; Eversource Initial Comments at 5; Indicated PJM TOs Initial Comments at 12; Indicated PJM TOs Reply Comments at 14; Longroad Energy Reply Comments at 3; NextEra Initial Comments at 5; NextEra Reply Comments at 8; North Dakota Commission Initial Comments at 3–4; NV Energy Initial Comments at 14; OMS Initial Comments at 5; Ørsted Initial Comments at 7; PG&E Initial Comments at 9; PJM Initial Comments at 45; PPL Initial Comments at 4; SEIA Initial Comments at 3; SPP Initial Comments at 2, 3–4; Vermont Electric and Vermont Transco Initial Comments at 3; WIRES Initial Comments at 8.

¹⁹⁸ AECI Initial Comments at 3; AEE Reply Comments at 5–6; AEP Initial Comments at 7–8; AEP Reply Comments at 2; AES Initial Comments at 4; Alliant Energy Initial Comments at 4; APPA-LPPC Initial Comments at 9; APS Initial Comments at 5; Bonneville Initial Comments at 3; CAISO Initial Comments at 6; Clean Energy Buyers Initial Comments at 6; Clean Energy States Initial Comments at 4; Dominion Reply Comments at 5–6; Environmental Defense Fund Reply Comments at 5; EEI Initial Comments at 11–12; EEI Reply Comments at 8–9; ELCON Initial Comments at 4–5; Enel Initial Comments at 9; ENGIE Initial Comments at 2; Eversource Initial Comments at 5; Google Initial Comments at 5; Idaho Power Initial Comments at 3; Indicated PJM TOs Initial Comments at 12; Indicated PJM TOs Reply Comments at 14; Longroad Energy Reply Comments at 4–5; MISO Reply Comments at 17; National Grid Initial Comments at 9; NESCOE Reply Comments at 2; NextEra Reply Comments at 8–9, 11–12; New Jersey Commission Initial Comments at 21; North Dakota Commission Initial Comments at 3–4; NRECA Initial Comments at 14; NV Energy Initial Comments at 14; NYISO Initial Comments at 16; OMS Initial Comments at 5; Pine Gate Initial Comments at 12; PPL Initial Comments at 4–6; SDG&E Initial Comments at 3–4; SEIA Initial Comments at 3; SEIA Reply Comments at 4; SoCal Edison Initial Comments at 12; Tesla Initial Comments at 4; Vermont Electric and Vermont Transco Initial Comments at 3; WIRES Initial Comments at 8.

¹⁹⁹ AECI Initial Comments at 3; AEP Initial Comments at 7–8; AEP Reply Comments at 2–3; AES Initial Comments at 4; Alliant Energy Initial Comments at 4; APS Initial Comments at 4; Bonneville Initial Comments at 3; CAISO Initial Comments at 6; Dominion Initial Comments at 9; Duke Southeast Utilities Initial Comments at 7–8; Environmental Defense Fund Reply Comments at 5; EEI Initial Comments at 11; ELCON Initial Comments at 4–5; Eversource Initial Comments at 5–6; Google Initial Comments at 5; Idaho Power Initial Comments at 3; Indicated PJM TOs Initial Comments at 13; MISO Reply Comments at 17; National Grid Initial Comments at 7, 10–11; NESCOE Reply Comments at 2; NextEra Reply Comments at 8; New Jersey Commission Initial Comments at 21; North Dakota Commission Initial Comments at 3–4; NRECA Initial Comments at 14; NYISO Initial Comments at 16–19; OMS Initial Comments at 5; Pennsylvania Commission Initial

insists that the decision as to whether to offer informational interconnection studies should be the transmission provider's and must have limits.²⁰⁰ Longroad Energy states that transmission-interconnected generating facilities are typically complex facilities with unique operating characteristics which would be poorly approximated in simplified studies.²⁰¹ Environmental Defense Fund states that, while it supported the informational interconnection studies proposal in its initial comments, after review of the other comments submitted, it recommends that the Commission reconsider the proposal and ensure that any informational interconnection study reform not delay other interconnection processes.²⁰²

80. Several commenters contend that the informational interconnection study proposal would not likely be valuable.²⁰³ Clean Energy Associations assert that the proposed informational interconnection study would provide no information related to stability-driven network upgrades, rendering it near-useless in areas where stability limits are most typically the driver of network upgrades.²⁰⁴ APPA-LPPC warn that informational interconnection studies could engender controversy because prospective interconnection customers would, notwithstanding the informational nature of the studies, likely rely upon the study results in

Comments at 11; PG&E Initial Comments at 9; PG&E Reply Comments at 5; Pine Gate Initial Comments at 12; PJM Initial Comments at 45; PPL Initial Comments at 4; SEIA Initial Comments at 4; SoCal Edison Initial Comments at 12; Tesla Initial Comments at 4.

²⁰⁰ Dominion Reply Comments at 5.

²⁰¹ Longroad Energy Reply Comments at 7.

²⁰² Environmental Defense Fund Reply Comments at 5.

²⁰³ AEE Initial Comments at 9–10; AEE Reply Comments at 5–6; AEP Initial Comments at 7; AEP Reply Comments at 2; Alliant Energy Initial Comments at 4; CAISO Initial Comments at 5–6; Clean Energy Associations Initial Comments at 14; CREA and NewSun Initial Comments at 42; Dominion Reply Comments at 5; EEI Initial Comments at 12; EEI Reply Comments at 8; Enel Initial Comments at 9; ENGIE Initial Comments at 2; Eversource Initial Comments at 5–6; Indicated PJM TOs Initial Comments at 12; Indicated PJM TOs Reply Comments at 14; ISO-NE Initial Comments at 19; Longroad Energy Reply Comments at 3; MISO Initial Comments at 20–21; MISO Reply Comments at 17–18; NextEra Initial Comments at 5, 10–11; NextEra Reply Comments at 9; North Dakota Commission Initial Comments at 4; NRECA Initial Comments at 14; NV Energy Initial Comments at 14; NYISO Initial Comments at 17; OMS Initial Comments at 5; Pacific Northwest Utilities Initial Comments at 8 n.13; PG&E Initial Comments at 9; PG&E Reply Comments at 4; PJM Initial Comments at 45; SDG&E Initial Comments at 3–4; SEIA Initial Comments at 3; SEIA Reply Comments at 3; SoCal Edison Initial Comments at 11–12; WIRES Initial Comments at 8.

²⁰⁴ Clean Energy Associations Initial Comments at 14.

¹⁹¹ Fervo Energy Initial Comments at 2; MISO Initial Comments at 22.

¹⁹² Pacific Northwest Organizations Initial Comments at 3–4.

¹⁹³ Northwest and Intermountain Initial Comments at 6–7.

¹⁹⁴ Pacific Northwest Organizations Initial Comments at 3.

¹⁹⁵ Idaho Power Initial Comments at 3 (stating that it only supports the proposal if the informational interconnection study requirements are less prescriptive and allow for more flexibility); NRECA Initial Comments at 8 (stating that it does not oppose the proposal as long as the final rule includes a larger package of reforms to reduce speculative interconnection requests and speed up interconnection queues as well as affords reasonable flexibility on compliance); Ohio Commission Consumer Advocate Initial Comments at 6 (stating that informational studies should not interfere with other interconnection studies).

¹⁹⁶ ACE-NY Initial Comments at 10; Avangrid Initial Comments at 21; Clean Energy Buyers Initial Comments at 7; ELCON Initial Comments at 4–5; NY Commission and NYSEDA Initial Comments at 6–7; Pattern Energy Initial Comments at 20; Pine Gate Initial Comments at 11–13; Southern Initial Comments at 28.

making investment decisions, even though the informational study results would inevitably diverge from the actual interconnection study results.²⁰⁵

81. Several commenters argue that the proposal is not an improvement over the status quo.²⁰⁶ National Grid and NextEra assert that it is unclear how the proposal would save any time compared to the status quo, and that the best way for an interconnection customer to obtain the necessary information is by entering and proceeding through the interconnection queue with transmission providers focusing on actual studies.²⁰⁷ NextEra adds that the proposed informational interconnection study is only informative in extreme cases, such as very limited capacity available on a transmission line, which the interconnection customer should be able to identify themselves.²⁰⁸

82. CREA and NewSun express concern that the NOPR proposal places too much reliance on the usefulness of the informational interconnection study in order to justify the financial readiness and commitment NOPR proposals.²⁰⁹ They assert that the informational interconnection study is not a useful replacement for the feasibility study, which takes into account the impact of other interconnection customers in the interconnection queue cluster. Therefore, CREA and NewSun ask the Commission to instead retain the feasibility study as part of the cluster study process to allow interconnection customers to obtain cluster-level information on likely costs and network upgrades before proceeding further with major deposits and irretrievable commitments.

83. Several commenters point to the experience with similar studies in SPP and MISO as evidence that the optional informational interconnection study proposal will be little-used in practice.²¹⁰ SPP reports that its interconnection customers explained

that their time could be more effectively spent working on the more definitive system impact studies, that the feasibility and preliminary impact studies did not provide results that could be relied on in making business decisions, and that this same outcome would be true of the proposed informational interconnection study.²¹¹

84. Several commenters point to the inability of the informational interconnection studies to provide reliable cost estimates²¹² and believe that the information provided in these studies will be quickly outdated.²¹³ The New Jersey Commission is concerned that this approach may not materially reduce the uncertainty interconnection customers currently face.²¹⁴ In particular, many commenters contend that the informational interconnection study is not meaningful in the context of a cluster interconnection process.²¹⁵ Commenters argue that, because the informational interconnection study does not provide information on other interconnection customers that would enter the interconnection queue at the same time, there is no guarantee that the study results will even approximate the actual network upgrade costs determined by the cluster results.²¹⁶

²¹¹ SPP Initial Comments at 3.

²¹² AEP Initial Comments at 8; Ameren Initial Comments at 5; CAISO Initial Comments at 5; Clean Energy Associations Initial Comments at 14; CREA and NewSun Initial Comments at 43; Cyprus Creek Initial Comments at 13; Enel Initial Comments at 9; Interwest Initial Comments at 7–8; NextEra Initial Comments at 5; NRECA Initial Comments at 14; PJM Initial Comments at 45; SoCal Edison Initial Comments at 11–12.

²¹³ AEP Initial Comments at 8; Alliant Energy Initial Comments at 4; Dominion Initial Comments at 10; Enel Initial Comments at 9; Eversource Initial Comments at 9; Interwest Initial Comments at 7–8; PJM Initial Comments at 45; PJM TOs Initial Comments at 13; SEIA Reply Comments at 4.

²¹⁴ New Jersey Commission Initial Comments at 21.

²¹⁵ *Id.*; AEE Initial Comments at 9–10; Avangrid Initial Comments at 23–24; Clean Energy Associations Initial Comments at 14; CREA and NewSun Initial Comments at 43; Dominion Reply Comments at 6; EEI Initial Comments at 12; EEI Reply Comments at 8; Enel Initial Comments at 9; Eversource Initial Comments at 9–10; ISO–NE Initial Comments at 18–19; MISO Initial Comments at 21; NRECA Initial Comments at 14; NV Energy Initial Comments at 14; PJM Initial Comments at 45; PPL Initial Comments at 5; SEIA Initial Comments at 4–5; SEIA Reply Comments at 3–4; SoCal Edison Initial Comments at 12; SPP Initial Comments at 2–3.

²¹⁶ AEE Initial Comments at 9–10; CAISO Initial Comments at 5–6; CREA and NewSun Initial Comments at 44; Dominion Initial Comments at 10; Duke Southeast Utilities Initial Comments at 7; EEI Reply Comments at 8; Indicated PJM TOs Initial Comments at 13; ISO–NE Initial Comments at 18–19; MISO Initial Comments at 22; NextEra Initial Comments at 11–12; New Jersey Commission Initial Comments at 21; PG&E Reply Comments at 5; PPL Initial Comments at 5; SEIA Reply Comments at 3–4; SoCal Edison Initial Comments at 12.

85. Some commenters expect the proposal will work against the Commission's goal of faster interconnection queue processing.²¹⁷ Some commenters state that any reduction in speculative interconnection requests will be offset by an increase in speculative informational interconnection requests, which would require transmission providers to shift their focus from the actual interconnection queue to this more burdensome informational interconnection process, which is outside of their interconnection study process.²¹⁸ NRECA states that, if the proposal is included in the final rule, the Commission should ensure that it is limited and is not expanded into an elaborate serial study process prior to the cluster study process.²¹⁹ Avangrid notes that some transmission providers have recently eliminated interconnection studies to reduce interconnection queue processing time.²²⁰ Pennsylvania Commission asserts that the Commission should assess the results of the NOPR's proposed reforms before requiring any new study processes that may further slow the interconnection queue process.²²¹

86. Several commenters note the challenge of staffing to fulfill the informational interconnection study requirements given the limited number of qualified planners and engineers.²²²

87. Several commenters urge the Commission to weigh the benefits against the burdens to determine whether to adopt the informational interconnection study proposal.²²³

²¹⁷ AEE Reply Comments at 6; AEP Initial Comments at 11; Avangrid Initial Comments at 22–23; CAISO Initial Comments at 6; Dominion Reply Comments at 6–7; National Grid Initial Comments at 7; NESCOE Reply Comments at 2; NV Energy Initial Comments at 14; Pennsylvania Commission Initial Comments at 11–12.

²¹⁸ AEI Initial Comments at 4; AEP Initial Comments at 11; APPA–LPPC Initial Comments at 11–12; Bonneville Initial Comments at 3 (citing NOPR, 179 FERC ¶ 61,194 at PP 20, 22, 166); Clean Energy Buyers Initial Comments at 6; Dominion Reply Comments at 6; NextEra Initial Comments at 12; NYISO Initial Comments at 17; Pennsylvania Commission Initial Comments at 11 (explaining that because the informational study is not binding on any party, the study does not move projects through the interconnection queue).

²¹⁹ NRECA Initial Comments at 14.

²²⁰ Avangrid Initial Comments at 23 (citing NOPR, 179 FERC ¶ 61,194 at P 56 n.111).

²²¹ Pennsylvania Commission Initial Comments at 11–12.

²²² *Id.* at 11; AEP Initial Comments at 10–11; APPA–LPPC Initial Comments at 12; Avangrid Initial Comments at 22–23; Bonneville Initial Comments at 5; Eversource Initial Comments at 5–6; Indicated PJM TOs Initial Comments at 12; Indicated PJM TOs Reply Comments at 14; LADWP Initial Comments at 2; OMS Initial Comments at 5.

²²³ Ameren Initial Comments at 5; R Street Initial Comments at 9; Xcel Initial Comments at 20.

²⁰⁵ APPA–LPPC Initial Comments at 12.

²⁰⁶ National Grid Initial Comments at 9; New Jersey Commission Initial Comments at 21; Vermont Electric and Vermont Transco Initial Comments at 3.

²⁰⁷ National Grid Initial Comments at 9; NextEra Initial Comments at 12.

²⁰⁸ NextEra Initial Comments at 12.

²⁰⁹ CREA and NewSun Initial Comments at 46–47.

²¹⁰ AEE Initial Comments at 10; AEP Initial Comments at 8, 12; Clean Energy Associations Initial Comments at 14; Enel Initial Comments at 9–10; Longroad Energy Reply Comments at 3–4; MISO Initial Comments at 21; NextEra Reply Comments at 8; Omaha Public Power Initial Comments at 3; SEIA Reply Comments at 3; SPP Initial Comments at 3. NextEra argues that transmission providers with large numbers of interconnection requests have tried optional interconnection studies and have not found them to be useful. NextEra Reply Comments at 10.

WAPA states that, while it agrees that it is important to provide prospective interconnection customers with additional information, it has concerns about the proposed timelines and penalties, the potential amount of informational interconnection study requests it could receive, and its ability to process up to five simultaneous informational interconnection study requests per interconnection customer.²²⁴ According to Vermont Electric and Vermont Transco, even if the informational interconnection studies envisioned by the NOPR provide interconnection customer benefits, the burdens of providing informational interconnection studies with cost estimates under the NOPR's short proposed time frames and low deposit amounts would be considerable especially for smaller companies such as Vermont Electric and Vermont Transco.²²⁵ Other commenters contend that the informational interconnection study proposal has insufficient benefits.²²⁶

88. Given PJM's opposition to the informational interconnect study, it recommends modifying the proposed new section 3.1.2 to the *pro forma* LGIP to encourage, but not require, interconnection customers evaluating different project characteristics to use a prescreening tool, such as the queue scope tool PJM is developing, prior to submitting an interconnection request.²²⁷

iii. Commission Determination

89. We decline to adopt the NOPR proposal to modify the *pro forma* LGIP to require transmission providers to offer an informational interconnection study for prospective interconnection customers. We are persuaded by commenters' concerns that requiring an informational interconnection study could divert the transmission provider's resources away from the cluster studies we require in this final rule and

undermine the benefits of those reforms that seek to reduce interconnection study delays, costs, and burden on constrained engineering labor. Moreover, we agree with commenters that highlight the various limitations of an informational interconnection study. Notably, an informational interconnection study, as proposed in the NOPR, would have provided a serial, snapshot-in-time analysis on the impact of a single interconnection request, but, in the context of the subsequent cluster study, the actual impact of an interconnection request within a larger cluster would reflect different assumptions and differ from the informational interconnection study, providing minimal or no value to interconnection customers. The cost estimates that result from such an informational interconnection study would bear little correspondence to costs determined during a cluster study process and thus provide minimal value to interconnection customers.

90. We also find persuasive comments that the informational interconnection study requirement proposed in the NOPR is not the most effective way to provide interconnection customers with the needed pre-interconnection queue information. At the same time, we continue to believe that there is a lack of information available to prospective interconnection customers prior to entering the interconnection queue, especially given other interconnection customer-related reforms adopted in this final rule.²²⁸ Therefore, as discussed below, we adopt the NOPR proposal to set minimum requirements for transmission providers to publicly post available information pertaining to generator interconnection.²²⁹ We find that the posting of this information provides a better balance between the benefits of additional information for prospective interconnection customers and the burdens on transmission providers.

91. In response to commenters that support the informational interconnection study NOPR proposal, below we explain how several of the NOPR proposals that we adopt in this final rule address their specific concerns. To address commenters' concerns with the number of speculative interconnection requests,²³⁰ we adopt more stringent site control requirements and increased commercial

readiness deposit requirements,²³¹ which we believe will better address these concerns than the informational interconnection study proposal. Additionally, we find that the minimum requirements for transmission providers to publicly post available information pertaining to generator interconnection²³² and the existing requirements in section 2.3 of the *pro forma* LGIP for transmission providers to post up-to-date base case study models on their Open Access Same-time Information System (OASIS) or other password-protected websites will improve the efficiency of siting decisions²³³ and will provide interconnection customers with information about the feasibility of their interconnection plans.²³⁴

92. We are not persuaded that the informational interconnection study proposal would benefit the interconnection process through: (1) cost savings from fewer, more feasible interconnection requests;²³⁵ (2) a reduced need for interconnection request withdrawals and restudies;²³⁶ and (3) accurate upfront interconnection cost information.²³⁷ On the contrary, the Commission's adoption of the cluster study reforms in this final rule²³⁸ means that the serial nature of the informational interconnection study would fail to reflect the outcome of the cluster study, and thus would provide minimal, if any, benefits to interconnection customers.²³⁹ We also no longer believe that adopting the informational interconnection study

²³¹ See *infra* sections III.A.6.b.iii, III.A.6.c.iii.

²³² See *infra* section III.A.1.c.iii.

²³³ Duke Southeast Utilities Initial Comments at 6–7; ISO–NE Initial Comments at 18; NARUC Initial Comments at 5; NRECA Initial Comments at 13; Pine Gate Initial Comments at 13–14; Tesla Initial Comments at 4.

²³⁴ Northwest and Intermountain Initial Comments at 6–7; Pacific Northwest Organizations Initial Comments at 3.

²³⁵ Evergreen Action Initial Comments at 3; NARUC Initial Comments at 5.

²³⁶ Evergreen Action Initial Comments at 3; NRECA Initial Comments at 13.

²³⁷ Fervo Energy Initial Comments at 2; MISO Initial Comments at 22; Pacific Northwest Organizations Initial Comments at 3–4.

²³⁸ See *infra* section III.A.2.

²³⁹ See AEE Initial Comments at 9–10; Avangrid Initial Comments at 23–24; Clean Energy Associations Initial Comments at 14; CREA and NewSun Initial Comments at 43; Dominion Reply Comments at 6; EEI Initial Comments at 12; EEI Reply Comments at 8; Enel Initial Comments at 9; Eversource Initial Comments at 9–10; ISO–NE Initial Comments at 18–19; MISO Initial Comments at 21; New Jersey Commission Initial Comments at 21; NRECA Initial Comments at 14; NV Energy Initial Comments at 14; PJM Initial Comments at 45; PPL Initial Comments at 5; SEIA Initial Comments at 4–5; SEIA Reply Comments at 3–4; SoCal Edison Initial Comments at 12; SPP Initial Comments at 2–3.

²²⁴ WAPA Initial Comments at 4–5.

²²⁵ Vermont Electric and Vermont Transco Initial Comments at 3.

²²⁶ *Id.*; AEP Initial Comments at 7; AES Initial Comments at 4; EEI Initial Comments at 11; ENGIE Initial Comments at 2; NextEra Initial Comments at 10–11; Ørsted Initial Comments at 7; PJM Initial Comments at 45; SEIA Initial Comments at 3.

²²⁷ PJM Initial Comments at 19 (explaining that the queue scope is an interactive prescreening tool that will allow interconnection customers to screen potential points of interconnection and assess grid capacity (head room) based on a given amount of MW injection or withdrawal at a given point of interconnection and that the tool will be available at no charge). PJM's proposed section 3.1.2 of the *pro forma* LGIP would read: "Interconnection Customers evaluating different options . . . to use the prescreening tool (Section 6.1 of this LGIP) before entering the Cluster Study."

²²⁸ See Northwest and Intermountain Initial Comments at 6–7.

²²⁹ See *infra* section III.A.1.c.iii.

²³⁰ Fervo Energy Initial Comments at 2–3; Google Initial Comments at 4; NRECA Initial Comments at 13; NY Commission and NYSEDA Initial Comments at 6–8.

proposal would reduce burdens on transmission providers.²⁴⁰ This is because the record overwhelmingly demonstrates that the proposal would result in additional burdens on transmission providers and would likely cause transmission providers to divert resources from their cluster study process to conduct informational interconnection studies,²⁴¹ thus increasing study delays and costs. Similarly, we decline CREA and NewSun's request that the Commission retain the feasibility study instead of the informational interconnection study. As we discuss below, the feasibility study was required for the serial study process but is no longer relevant for the cluster study process.²⁴² We believe that our requirement for transmission providers to publicly post certain interconnection information will provide interconnection customers with the information they need prior to entering the interconnection queue, and therefore decline to adopt CREA and NewSun's request to maintain the feasibility study.

93. Because we do not adopt the NOPR proposal to require transmission providers to offer an informational interconnection study, we decline to adopt the proposal to add new section 3.1.2 to the *pro forma* LGIP to encourage interconnection customers to use the informational interconnection study.

²⁴⁰ See Google Initial Comments at 5 (arguing that the informational interconnection study requirement alone would likely increase the burden on transmission providers in a way that would lengthen delays).

²⁴¹ *Id.*; AECI Initial Comments at 3; AEE Reply Comments at 5–6; AEP Initial Comments at 7–8; AEP Reply Comments at 2; AES Initial Comments at 4; Alliant Energy Initial Comments at 4; APPA–LPPC Initial Comments at 9; APS Initial Comments at 5; Bonneville Initial Comments at 3; CAISO Initial Comments at 6; Clean Energy Buyers Initial Comments at 6; Clean Energy States Initial Comments at 4; Dominion Reply Comments at 5–6; Environmental Defense Fund Reply Comments at 5; EEI Initial Comments at 11–12; EEI Reply Comments at 8–9; ELCON Initial Comments at 4–5; Enel Initial Comments at 9; ENGIE Initial Comments at 2; Eversource Initial Comments at 5; Idaho Power Initial Comments at 3; Indicated PJM TOs Initial Comments at 12; Indicated PJM TOs Reply Comments at 14; Longroad Energy Reply Comments at 4–5; MISO Reply Comments at 17; National Grid Initial Comments at 9; NESCOE Reply Comments at 2; New Jersey Commission Initial Comments at 21; NextEra Reply Comments at 8–9, 11–12; North Dakota Commission Initial Comments at 16; NRECA Initial Comments at 14; NV Energy Initial Comments at 14; NYISO Initial Comments at 16; OMS Initial Comments at 5; Pine Gate Initial Comments at 12; PPL Initial Comments at 4–6; SDG&E Initial Comments at 3–4; SEIA Initial Comments at 3; SEIA Reply Comments at 4; SoCal Edison Initial Comments at 12; Tesla Initial Comments at 4; Vermont Electric and Vermont Transco Initial Comments at 3; WIRES Initial Comments at 8.

²⁴² See *infra* section III.A.2.f.iii.

c. Public Interconnection Information

i. NOPR Proposal

94. In the NOPR, the Commission proposed to require transmission providers to maintain and make publicly available an interactive visual representation of available interconnection capacity (commonly known as a “heatmap”) as well as a table of relevant interconnection metrics that allow prospective interconnection customers to see certain estimates of a potential generating facility's effect on the transmission provider's transmission system.²⁴³ Specifically, the Commission proposed to revise section 6.4 of the *pro forma* LGIP to require transmission providers to post on their public website a heatmap of estimated incremental injection capacity (in MW) available at each bus in the transmission provider's footprint under N–1 conditions, as well as provide a table of results showing the estimated impact of the addition of a proposed project (based on the user-specified MW amount, voltage level, and point of interconnection) for each monitored facility impacted by the proposed project on: (1) the distribution factor; (2) the MW impact (based on the proposed project size and the distribution factor); (3) the percentage impact on the monitored facility (based on the MW values of the proposed project and the monitored facility rating); (4) the percentage of power flow on the monitored facility before the proposed project; and (5) the percentage power flow on the monitored facility after the injection of the proposed project. The Commission explained that these metrics would be calculated based on the power flow model of the cluster study or restudy with the transfer simulated from each bus to the whole transmission provider's footprint (to approximate Network Resource Interconnection Service (NRIS)), and with the incremental capacity at each bus decremented by the existing and queued generation in the cluster (based on the existing or requested interconnection service limit of the generation). The Commission proposed to require transmission providers to update this information within 30 days after the completion of each cluster study and restudy.

95. The Commission sought comment on whether: (1) there are any security concerns with this proposed requirement; and (2) the assumptions specified for the analysis are the right set of assumptions.²⁴⁴

²⁴³ NOPR, 179 FERC ¶ 61,194 at P 51.

²⁴⁴ *Id.* P 52.

ii. Comments

(a) Comments in Support

96. Many commenters express support for the NOPR's proposal to require transmission providers to provide public interconnection information.²⁴⁵ Several commenters agree that the NOPR proposal will provide valuable information to interconnection customers before they enter the interconnection queue.²⁴⁶ Several commenters aver that the proposal could reduce the number of interconnection requests withdrawn²⁴⁷ and therefore could reduce costs for all parties.²⁴⁸ Alliant Energy and Clean Energy Associations also see value in the standardized format of the proposed

²⁴⁵ ACE–NY Initial Comments at 11; AES Initial Comments at 3; Affected Interconnection Customers Initial Comments at 30; APPA–LPPC Initial Comments at 13; CAISO Initial Comments at 7; CESA Initial Comments at 7; Clean Energy Associations Initial Comments at 12; Clean Energy Buyers Initial Comments at 6–7; Colorado Commission Initial Comments at 8; Consumers Energy Initial Comments at 3; CREA and NewSun Initial Comments at 44–45; Duke Southeast Utilities Initial Comments at 6; Environmental Defense Fund Initial Comments at 3; Environmental Defense Fund Reply Comments at 2–3; ELCON Initial Comments at 4; ENGIE Initial Comments at 2; Evergreen Action Initial Comments at 3; Fervo Energy Initial Comments at 2; Google Initial Comments at 14; Google Reply Comments at 6; Illinois Commission Initial Comments at 6; Interwest Initial Comments at 7; New Jersey Commission Initial Comments at 11–12; Northwest and Intermountain Initial Comments at 9–10; NY Commission and NYSDERA Initial Comments at 8; Ørsted Initial Comments at 7; Pattern Energy Initial Comments at 23; Pine Gate Initial Comments at 13; Public Interest Organizations Initial Comments at 18–19; R Street Initial Comments at 8, 10; Southern Initial Comments at 28; Tesla Initial Comments at 6–7; Vistra Initial Comments at 1, 4.

²⁴⁶ Alliant Energy Initial Comments at 5; Clean Energy Associations Initial Comments at 12; CREA and NewSun Initial Comments at 44–45; Duke Southeast Utilities Initial Comments at 6; EEI Initial Comments at 12–13; ELCON Initial Comments at 6; ENGIE Initial Comments at 2; Evergreen Action Initial Comments at 3; Fervo Energy Initial Comments at 2–3; Illinois Commission Initial Comments at 6; Indicated PJM TOs Initial Comments at 14; Indicated PJM TOs Reply Comments at 6; ISO–NE Initial Comments at 26–27; New Jersey Commission Initial Comments at 12; NY Commission and NYSDERA Initial Comments at 8; Ohio Commission Consumer Advocate Initial Comments at 7; Pacific Northwest Utilities Initial Comments at 13; SEIA Initial Comments at 5.

²⁴⁷ CESA Initial Comments at 9; CESA Reply Comments at 3; Consumers Energy Initial Comments at 3; CREA and NewSun Initial Comments at 44–45; Duke Southeast Utilities Initial Comments at 6; Environmental Defense Fund Initial Comments at 3; EEI Initial Comments at 12–13; ELCON Initial Comments at 6; Evergreen Action Initial Comments at 3; Google Initial Comments at 14; Illinois Commission Initial Comments at 6–7; New Jersey Commission Initial Comments at 12; NY Commission and NYSDERA Initial Comments at 8; Pacific Northwest Utilities Initial Comments at 13; SEIA Initial Comments at 5.

²⁴⁸ Evergreen Action Initial Comments at 3; New Jersey Commission Initial Comments at 12.

public interconnection information.²⁴⁹ R Street states that a properly done visual representation of interconnection capacity can be a “powerful decentralized self-screening tool.”²⁵⁰ R Street states that better information and simpler deliverability requirements shift congestion performance risk to generating facilities while reducing barriers to entry.²⁵¹ The Ohio Commission Consumer Advocate states that the visual map of available interconnection capacity would be useful both to transmission providers and interconnection customers and would encourage information sharing on transmission system congestion during the interconnection process.²⁵² Google argues that making these data publicly available to consumers would allow buyers to make informed choices regarding power procurement.²⁵³ Additionally, Google asserts that there needs to be a standard of reasonable care applied to ensure that the publicly available information is reasonably current and useful to avoid exploratory interconnection requests.²⁵⁴ SEIA argues that greater transparency will increase competition between merchant and utility developed generating facilities, benefiting consumers.²⁵⁵ Illinois Commission contends that, if properly implemented, the NOPR proposal will increase the pace at which new generating facilities can connect to the transmission system, furthering state policy objectives.²⁵⁶

97. Some commenters contend that the proposal to provide public interconnection information is not overly burdensome.²⁵⁷ APPA–LPPC members report that the information posting and interactive capability described in the NOPR could be feasibly implemented with available industry system simulation tools.²⁵⁸ Clean Energy Associations state that heatmaps should be as automated as possible, without significant commitments of staff or resources.²⁵⁹

²⁴⁹ Alliant Energy Initial Comments at 5; Clean Energy Associations Initial Comments at 12.

²⁵⁰ R Street Initial Comments at 10.

²⁵¹ R Street Reply Comments at 2.

²⁵² Ohio Commission Consumer Advocate Initial Comments at 7.

²⁵³ Google Initial Comments at 4.

²⁵⁴ Google Reply Comments at 7.

²⁵⁵ SEIA Reply Comments at 5.

²⁵⁶ Illinois Commission Initial Comments at 6.

²⁵⁷ APPA–LPPC Initial Comments at 16; Clean Energy Associations Initial Comments at 12–13; Google Initial Comments at 14; New York State Department Initial Comments at 8; Pennsylvania Commission Initial Comments at 13; SEIA Initial Comments at 6.

²⁵⁸ APPA–LPPC Initial Comments at 16.

²⁵⁹ Clean Energy Associations Initial Comments at 13.

98. Several commenters point to the fact that some transmission providers are already developing such tools as evidence that these tools are unlikely to cause further delays to stressed interconnection queues or additional burden on transmission providers.²⁶⁰ For instance, some commenters note that MISO already offers a heatmap that represents geographically advantageous siting locations.²⁶¹ Several commenters also note that PJM is developing such a tool.²⁶² PJM states that in 2023 its queue scope tool will provide a congestion map with colors or symbols indicating the worst flowgate loading at each point of interconnection.²⁶³ SPP states that it is also developing a tool to be implemented by 2025 that would provide much of the functionality described in the Commission’s public information proposal to new interconnections.²⁶⁴

99. Several commenters contend that the public information proposal is a more reasonable balance of costs and benefits relative to the informational interconnection study proposal.²⁶⁵ Pennsylvania Commission states that, once a public information tool is established, it may require fewer ongoing resources, continuing to inform interconnection customers while freeing those resources for additional interconnection studies as compared to the proposed informational interconnection study.²⁶⁶

(b) Comments in Opposition

100. A few commenters oppose the NOPR proposal to require transmission providers to provide public interconnection information.²⁶⁷ A larger number of commenters express

²⁶⁰ *Id.* at 12; Environmental Defense Fund Reply Comments at 3; ENGIE Initial Comments at 2–3; Pennsylvania Commission Initial Comments at 13.

²⁶¹ CESA Reply Comments at 5; Fervo Energy Reply Comments at 3; OMS Initial Comments at 3, 6; R Street Initial Comments at 10; SEIA Initial Comments at 6.

²⁶² CESA Reply Comments at 4; Fervo Energy Reply Comments at 3; Indicated PJM TOs Initial Comments at 14; Ohio Commission Consumer Advocate Initial Comments at 7; Pennsylvania Commission Initial Comments at 13; PJM Initial Comments at 48; PPL Initial Comments at 9; R Street Initial Comments at 10; SEIA Initial Comments at 6.

²⁶³ PJM Initial Comments at 46–47.

²⁶⁴ SPP Initial Comments at 4.

²⁶⁵ Ameren Initial Comments at 5; APPA–LPPC Initial Comments at 16; APS Initial Comments at 5; Bonneville Initial Comments at 5; Pennsylvania Commission Initial Comments at 13; PJM Initial Comments at 45–48; R Street Initial Comments at 10.

²⁶⁶ Pennsylvania Commission Initial Comments at 13.

²⁶⁷ Avangrid Reply Comments at 4; El Paso Electric Initial Comments at 8; PG&E Initial Comments at 9.

reservations about the proposal,²⁶⁸ in particular regarding its usefulness²⁶⁹ or the burden it creates.²⁷⁰ Other commenters request that the Commission make public interconnection information posting optional.²⁷¹

101. Several commenters argue that the proposal to require transmission providers to provide public interconnection information is not useful,²⁷² particularly because it might not provide sufficient detail²⁷³ or commercially actionable information for interconnection customers.²⁷⁴ Commenters explain that heatmaps are specific to a moment in time and thus not representative of actual available injection across the transmission system, which is ever-changing.²⁷⁵ NextEra observes that heatmaps do not contain actionable information for interconnection and instead focus on energy prices and congestion.²⁷⁶ ISO–NE, MISO, and Omaha Public Power note that a visual representation of interconnection capacity cannot account for all of the conditions identified in a system impact study, including different system stresses, operability issues (*e.g.*, N–1–1), stability and voltage issues, and weak transmission system issues.²⁷⁷

²⁶⁸ AEP Initial Comments at 13; Idaho Power Initial Comments at 3; NextEra Initial Comments at 12–13; Omaha Public Power Initial Comments at 4; PacifiCorp Initial Comments at 13–14; SPP Initial Comments at 4; Tri-State Initial Comments at 4; WAPA Initial Comments at 7–8.

²⁶⁹ AEP Initial Comments at 13; Idaho Power Initial Comments at 3; ISO–NE Initial Comments at 17; Longroad Energy Reply Comments at 7; Omaha Public Power Initial Comments at 4; PacifiCorp Initial Comments at 13–14; SPP Initial Comments at 4; WAPA Initial Comments at 7–8.

²⁷⁰ AECI Initial Comments at 5; Dominion Initial Comments at 12; National Grid Initial Comments at 7; NextEra Initial Comments at 12–13; Omaha Public Power Initial Comments at 4; PacifiCorp Initial Comments at 13–14; SPP Initial Comments at 4.

²⁷¹ AEP Initial Comments at 13; Avangrid Initial Comments at 21–22; SPP Initial Comments at 4.

²⁷² Dominion Initial Comments at 13; Idaho Power Initial Comments at 3; ISO–NE Initial Comments at 17; NextEra Initial Comments at 12; New York State Department Initial Comments at 8; NYISO Initial Comments at 17; Omaha Public Power Initial Comments at 4; PacifiCorp Initial Comments at 14.

²⁷³ AECI Initial Comments at 5; Dominion Initial Comments at 13; Longroad Energy Reply Comments at 7; National Grid Initial Comments at 8; New York State Department Initial Comments at 8; Omaha Public Power Initial Comments at 4.

²⁷⁴ AEE Initial Comments at 9; Cypress Creek Initial Comments at 13; NextEra Initial Comments at 12.

²⁷⁵ AECI Initial Comments at 5; AEP Initial Comments at 13; New York State Department Initial Comments at 8; NYISO Initial Comments at 17.

²⁷⁶ NextEra Initial Comments at 12.

²⁷⁷ ISO–NE Initial Comments at 17; MISO Initial Comments at 26 (citing NOPR, 179 FERC ¶ 61,194 at P 50 & n.105); Omaha Public Power Initial Comments at 4.

Longroad Energy asserts that generator interconnection heatmaps or hosting capacity maps can be of some use for interconnections to the distribution system but are unlikely to be beneficial for projects interconnecting at transmission voltages.²⁷⁸

102. Some commenters do not believe that the heatmap proposal will appreciably reduce speculative interconnection requests.²⁷⁹ MISO explains that, in its experience, few interconnection customers use its interconnection heatmap tool and instead tend to use their own tools.²⁸⁰ Puget Sound states that, even with a heatmap, if an interconnection customer has a request that would require energy transfer across balancing authorities, it would have to submit an interconnection request to get information on the scope of necessary network upgrades.²⁸¹ NV Energy asserts that a heatmap of its transmission system would be of little value, appearing as though there is no available transfer capacity, because the generation in its interconnection queue is more than five times the level of NV Energy load.²⁸² Meanwhile, Puget Sound states that a heatmap of its territory would only account for generation and interconnection capacity in its balancing authority footprint even though its transmission goes beyond this footprint.²⁸³

103. Several commenters contend that a heatmap tool as proposed would be less useful in a cluster study than it is in a serial process because it cannot include similarly queued generation.²⁸⁴ Ohio Commission Consumer Advocate questions whether it will capture the “dynamic elements” of cluster studies and restudies.²⁸⁵ PacifiCorp and AEP state that the mere fact that an area is not shown as congested on a heatmap does not mean that it will be a suitable interconnection location, particularly if multiple interconnection customers seek to interconnect there.²⁸⁶

104. Longroad Energy and PacifiCorp express concern that the heatmap tools

would not be restricted to prospective interconnection customers and could instead be used by third-party consultants for their own business interests; for instance, real estate speculators could use the information to secure exclusive site control for locations that show significant generator interconnection capacity.²⁸⁷ According to Longroad Energy, such risk is particularly harmful to wind and solar generation interconnection customers’ needs for large tracts of land to accommodate their generation equipment.²⁸⁸

105. Some commenters assert that maintaining the heatmap and posting required information on available interconnection capacity would be burdensome for transmission providers, especially in non-RTO/ISO regions.²⁸⁹ Similarly, NV Energy states that it participates in the CAISO energy imbalance market and its energy management system does not currently have the technical functionality to build an interactive map that shows information like the available interconnection capacity.²⁹⁰ Some commenters argue that the heatmaps may provide insufficient benefit to justify cost, resources, and time it would take to produce them.²⁹¹ Omaha Public Power further asserts that interconnection customers will likely find it more valuable for a transmission provider invest in more reliable and consequential studies.²⁹² Pacific Northwest Utilities assert that the Commission should present additional data regarding the benefits of requiring a heatmap before mandating their use.²⁹³ Clean Energy Associations recommend that the Commission consider other means of increasing information to prospective interconnection customers, such as public scoping meetings prior to the prospective interconnection customers entering the interconnection queue.²⁹⁴

106. Some commenters express concern that the public information proposal will impose new costs on ratepayers and market participants.²⁹⁵ WAPA states that, given its defined appropriations and budgets, it is difficult to create new programs, unlike for larger investor-owned utilities or RTOs/ISOs.²⁹⁶ Dominion estimates that implementation would require a large up-front financial commitment, potentially for third-party software and personnel hours, and longer-term financial commitment to maintain such a site.²⁹⁷ NV Energy contends that creating such a heatmap showing interconnection capabilities would require finding an eligible software, an ongoing expense.²⁹⁸

107. Several commenters speak to the burden of additional staffing needs to provide public interconnection information. National Grid states that the interactive visual representation tool, even if contracted from a third party, would require significant time commitments from numerous personnel with relevant and advanced expertise in transmission and interconnection engineering.²⁹⁹ Tri-State notes that the Commission has recognized the lack of available engineers and that imposing a heatmap requirement would exacerbate the problem.³⁰⁰ Dominion and Duke Southeast Utilities state that any additional process would require additional financial and personnel resources, and also burden the same personnel that are already engaged in managing the interconnection queue.³⁰¹ El Paso Electric argues that transmission providers should not be required to allocate human resources from interconnection studies to monthly transmission line capacity estimates because the staff reallocation could cause interconnection study backlogs.³⁰² PacifiCorp states that this burden will be particularly onerous to transmission providers outside RTO/ISO regions, which have comparatively few transmission staff available.³⁰³

108. Several commenters suggest that interconnection customers, on their own or with consultants, can perform studies with the available information that would provide estimates on available capacity similar to that produced under

²⁷⁸ Longroad Energy Reply Comments at 7; PacifiCorp Initial Comments at 15.

²⁷⁹ Longroad Energy Reply Comments at 7.

²⁸⁰ National Grid Initial Comments at 7–8; PacifiCorp Initial Comments at 13; Tri-State Initial Comments at 7.

²⁸¹ NV Energy Initial Comments at 10.

²⁸² Dominion Initial Comments at 13; National Grid Initial Comments at 8; NextEra Initial Comments at 12; New York State Department Initial Comments at 8; Omaha Public Power Initial Comments at 4; Pacific Northwest Utilities Initial Comments at 14; PPL Initial Comments at 9; Tri-State Initial Comments at 4; WAPA Initial Comments at 7.

²⁸³ Omaha Public Power Initial Comments at 4.

²⁸⁴ Pacific Northwest Utilities Initial Comments at 14.

²⁸⁵ Clean Energy Associations Initial Comments at 14.

²⁹⁵ New York State Department Initial Comments at 8; SoCal Edison Initial Comments at 13.

²⁹⁶ WAPA Initial Comments at 7.

²⁹⁷ Dominion Initial Comments at 12.

²⁹⁸ NV Energy Initial Comments at 10.

²⁹⁹ National Grid Initial Comments at 7–8.

³⁰⁰ Tri-State Initial Comments at 8.

³⁰¹ Dominion Initial Comments at 13; Duke Southeast Utilities Initial Comments at 7.

³⁰² El Paso Electric Initial Comments at 7.

³⁰³ PacifiCorp Initial Comments at 13.

²⁷⁸ Longroad Energy Reply Comments at 7.

²⁷⁹ Idaho Power Initial Comments at 3; PPL Initial Comments at 9.

²⁸⁰ MISO Initial Comments at 25–26.

²⁸¹ Puget Sound Initial Comments at 6.

²⁸² NV Energy Initial Comments at 10.

²⁸³ Puget Sound Initial Comments at 6.

²⁸⁴ CAISO Initial Comments at 8; CREA and NewSun Initial Comments at 48; Duke Southeast Utilities Initial Comments at 6–7; MISO Initial Comments at 26; Ohio Commission Consumer Advocate Initial Comments at 7; PacifiCorp Initial Comments at 15.

²⁸⁵ Ohio Commission Consumer Advocate Initial Comments at 7.

²⁸⁶ AEP Initial Comments at 13; PacifiCorp Initial Comments at 15.

the NOPR proposal.³⁰⁴ PPL states that interconnection customers can make their own such maps using transmission planning models the Commission makes available following a Freedom of Information Act request.³⁰⁵ APPA–LPPC argue that the Commission fails to establish that the information already available to prospective interconnection customers under the existing *pro forma* LGIP, along with the substantial supplement implemented with Order No. 845, is inadequate.³⁰⁶ SoCal Edison states that the information included in the NOPR proposal and more is already available if interconnection customers request it from the Commission for their own studies or use studies developed by transmission providers.³⁰⁷ The Ohio Commission Consumer Advocate states that the determination of a suitable site depends largely on the location and geography of the resources, which is publicly available from national labs and the U.S. Energy Information Administration.³⁰⁸

109. Several commenters state that sufficient data are already required to be posted on OASIS.³⁰⁹ According to Idaho Power, Order No. 2003–A required interconnection study reports to be publicly available and provide locational and cost information for previously studied interconnections, but this has not reduced the amount of interconnection requests at congested locations.³¹⁰ SoCal Edison and NYISO state that this information is already available in FERC Form 715, where it is protected with a non-disclosure agreement as critical energy infrastructure information (CEII) and has the benefit of being available in one centralized location.³¹¹ On the other hand, ACE–NY disagrees with the assertion that FERC Form 715 provides sufficient information for interconnection customers to do their own analysis, asserting that the FERC Form 715 database base cases do not contain sufficient data about the generation interconnection queue and study assumptions and are therefore

inadequate.³¹² Rather, ACE–NY argues that more detailed base cases such as those currently being made available by MISO and PJM, should be required.

110. Several commenters state that the usefulness of public interconnection information proposal will depend on the implementation details.³¹³ For example, Illinois Commission and CESA recognize that the accuracy of the heatmaps is an important part of how useful they will be.³¹⁴ Puget Sound states that it has considered creating such a heatmap but has concerns about its effectiveness given implementation challenges.³¹⁵ SPP states that technology, information, and tools are quickly evolving and that a standardization tool might be obsolete before it is implemented.³¹⁶ CESA explains that currently CAISO provides static, snapshot-in-time transmission capability estimates that are helpful but do not capture locational granularity or other projects already in the interconnection queue, making it difficult to make an informed project siting decision and at times requiring data requests of CAISO.³¹⁷ For this reason, CESA stresses that the heatmaps and associated data must be made available in a user-friendly format. CREA and NewSun argue that the Commission should be careful not to overestimate the ability to forecast interconnection costs and project viability that will ultimately result from a cluster study.³¹⁸ Several commenters stress that any potential increase in transparency and interconnection process performance resulting from this proposal must outweigh the additional burden imposed on transmission providers.³¹⁹

(c) Comments on Specific Proposal

(1) Metrics

111. While some commenters agree with the Commission's proposed table of metrics,³²⁰ multiple commenters suggest additional metrics that should be posted.³²¹ For instance, Public

Interest Organizations request information on the available interconnection capacity (including, at a minimum, a snapshot of existing available interconnection capacity and associated transmission during high load conditions for each substation) including projects already in the interconnection queue, and the capacity those projects are requesting,³²² as well as metrics on whether power flows from a point of interconnection are likely to serve low income and people of color communities (which would be consistent with Executive Order 13985).³²³ Other commenters suggest that the posted metrics should also include: circuit strength and the harmonics of transmission system elements;³²⁴ limiting elements at a substation or associated transmission infrastructure;³²⁵ the level of congestion and resource curtailment by location (historic, current, and/or expected);³²⁶ overload conditions;³²⁷ contingencies that drive the impacts to the monitored facility;³²⁸ for a given transmission line, information on the circuit (e.g., single or double), the conductor type, pole types, the ratings of the equipment, and the age of the equipment;³²⁹ flowgate data, such as disconnect switches, breakers, transformers, conductors, series reactors, and ground clearances of lines;³³⁰ change file models of network upgrades for deliverability in advance of providing study results;³³¹ base case models paired with contingencies including local contingencies (below

Comments at 7–8; MISO Initial Comments at 25 (agreeing that the five data points are sufficient but adding that, if the first is provided, then prospective interconnection customers can calculate the other four).

³²² Public Interest Organizations Initial Comments at 19–20.

³²³ Public Interest Organizations Reply Comments at 11–12 (citing 16 U.S.C. 824(a); *Nat'l Ass'n for Advancement of Colored People v. FPC*, 425 U.S. 662, 669–670 (1976); Executive Order 13985, “Executive Order on Advancing Racial Equity and Support for Underserved Communities Through the Federal Government” (Jan. 20, 2021)); *see also* Navajo Utility Initial Comments at 9.

³²⁴ SEIA Initial Comments at 6.

³²⁵ AES Initial Comments at 5–7; Hannon Armstrong Initial Comments at 2; Pattern Energy Initial Comments at 23; Public Interest Organizations Initial Comments at 19.

³²⁶ AEP Initial Comments at 13; Clean Energy Associations Initial Comments at 12; Pine Gate Initial Comments at 14.

³²⁷ Ameren Initial Comments at 6; R Street Initial Comments at 10.

³²⁸ Pattern Energy Initial Comments at 23.

³²⁹ NextEra Initial Comments at 11.

³³⁰ AES Initial Comments at 6; Pattern Energy Initial Comments at 23; Pine Gate Initial Comments at 14; SEIA Reply Comments at 4.

³³¹ AES Initial Comments at 5; Pine Gate Initial Comments at 14; SEIA Reply Comments at 5.

³⁰⁴ *Id.* at 15; AEP Initial Comments at 8; APPA–LPPC Initial Comments at 9; El Paso Electric Initial Comments at 7; PPL Initial Comments at 9; SoCal Edison Initial Comments at 14.

³⁰⁵ PPL Initial Comments at 9.

³⁰⁶ APPA–LPPC Initial Comments at 9.

³⁰⁷ SoCal Edison Initial Comments at 14.

³⁰⁸ Ohio Commission Consumer Advocate Initial Comments at 6–7.

³⁰⁹ Duke Southeast Utilities Initial Comments at 6–7; Idaho Power Initial Comments at 3; NV Energy Initial Comments at 10; PacifiCorp Initial Comments at 14–15.

³¹⁰ Idaho Power Initial Comments at 3.

³¹¹ NYISO Initial Comments at 17; SoCal Edison Initial Comments at 14.

³¹² ACE–NY Reply Comments at 3–4.

³¹³ CESA Initial Comments at 8–9; Illinois Commission Initial Comments at 6; Puget Sound Initial Comments at 6; SPP Initial Comments at 4.

³¹⁴ CESA Initial Comments at 9; Illinois

Commission Initial Comments at 6.

³¹⁵ Puget Sound Initial Comments at 6.

³¹⁶ SPP Initial Comments at 4.

³¹⁷ CESA Initial Comments at 8.

³¹⁸ CREA and NewSun Initial Comments at 48.

³¹⁹ Cypress Creek Initial Comments at 14; EEI Initial Comments at 12–13; Eversource Initial Comments at 11; New Jersey Commission Initial Comments at 22–23; New York State Department Initial Comments at 8–9.

³²⁰ NOPR, 179 FERC ¶ 61,194 at P 51.

³²¹ Ameren Initial Comments at 5; Bonneville Initial Comments at 7; Clean Energy Buyers Initial

200 kV);³³² incremental injection capacity available at each bus in the transmission provider's footprint under N-1 conditions with a five-year outlook;³³³ the rating of the monitored facility;³³⁴ estimated costs of interconnection or transmission service, including where interconnection is likely to be costly and not costly;³³⁵ proposed upgrades in the region that could affect interconnection requests;³³⁶ lists of potential upgrades that would be needed to export power to other regions or that would allow the transmission provider to increase injection capacity at each substation;³³⁷ more granular load growth data, defined by region, which could be combined with existing and planned generation and congestion to view anticipated system changes;³³⁸ and the share that all generating facilities contribute to a network upgrade along with their share of allocated costs.³³⁹ Tesla requests information that would particularly developers of non-synchronous generating facilities to decide what project controls might be best suited for a given point of interconnection, including: the number of generating facilities and power control devices (including series compensation systems, static synchronous compensator devices and other power control devices) that are two busses away from the given point of interconnection; the circuit breaker short circuit ratings of the nearest substation; and the maximum and minimum fault current in megavolt amperes (MVA) at the given point of interconnection.³⁴⁰

112. Several commenters highlight that additional information regarding transmission system conditions, such as previous cluster studies and models, posted in a secure way subject to CEII processes, would allow interconnection customers to conduct their own initial analyses of system conditions and desirable points of interconnection.³⁴¹

³³² AES Initial Comments at 5; SEIA Reply Comments at 5.

³³³ AES Initial Comments at 5; SEIA Reply Comments at 5.

³³⁴ Pattern Energy Group Initial Comments at 23; SEIA Reply Comments at 5.

³³⁵ Bonneville Initial Comments at 5; Eversource Initial Comments at 11.

³³⁶ Ørsted Initial Comments at 7; Pattern Energy Initial Comments at 23; Public Interest Organizations Initial Comments at 19; SEIA Reply Comments at 5.

³³⁷ Clean Energy Associations Initial Comments at 13; Public Interest Organizations Initial Comments at 20–21.

³³⁸ Google Initial Comments at 6, 14.

³³⁹ AES Initial Comments at 5–7, 13–14.

³⁴⁰ Tesla Initial Comments at 7.

³⁴¹ ACE–NY Initial Comments at 11; AES Initial Comments at 5; Clean Energy States Alliance Initial Comments at 4; CREA and NewSun Initial

SoCal Edison states that, alternatively, the transmission providers could identify areas where new generation is desired, guided by state processes identifying the locations that can accommodate additional generation currently or locations intended for types of generation sought state policy.³⁴²

113. Some commenters oppose these requests for additional metrics. Dominion notes that tracking and providing the information requested by Public Interest Organizations, including documenting the study process, providing enhanced interconnection queue tracking, and metrics on constraints that cause bottlenecks, would be burdensome, taking engineers' time, slowing down the cluster study process, and diverting resources.³⁴³ EEI and WIRES contend that certain information on transmission line design, such as circuit type, conductor type, and pole type, would be overly burdensome and offer little benefit, adding that this information could invite potential disputes or be used to threaten to the reliability of the transmission system or for commercial gain if the information is not subject to confidentiality protections.³⁴⁴ EEI also asserts that any additional information beyond that proposed in the NOPR would complicate the interconnection process by adding another potential area of dispute and risks potential "backseat driving" by the interconnection customer, while the transmission provider is responsible for performing and standing by its study results.³⁴⁵

114. Some commenters disagree as to the appropriate level of granularity of the required metrics. SEIA and ENGIE support the NOPR proposal to require transmission providers to post bus-level interconnection capacity constraints.³⁴⁶ Dominion disagrees, arguing that requiring capacity constraint information to be provided at the bus-level is outside the scope of the NOPR and would not necessarily be useful in a networked system where injection at one bus will affect the capability at other buses and significant additional power flow analysis would be required to determine these values at each bus.³⁴⁷ According to Dominion, information

Comments at 47; ENGIE Initial Comments at 3; NextEra Reply Comments at 9; PJM Initial Comments at 7; PPL Initial Comments at 9; SEIA Reply Comments at 4.

³⁴² SoCal Edison Initial Comments at 14–15.

³⁴³ Dominion Reply Comments at 8.

³⁴⁴ EEI Reply Comments at 9–10; WIRES Reply Comments at 5–6.

³⁴⁵ EEI Reply Comments at 9–10.

³⁴⁶ ENGIE Initial Comments at 2–3; SEIA Initial Comments at 5.

³⁴⁷ Dominion Reply Comments at 8–9.

about bus-level interconnection capacity constraints makes more sense where the system is radial in nature and injection capability at one bus is not dependent on contingencies or injections at another bus. Eversource adds that bus level information will not provide significant benefits because it may be too simplistic if it is not based on N-1 conditions or if it fails to incorporate stability considerations.³⁴⁸ Public Interest Organizations state that many utilities provide hosting capacity information on their websites at the distribution level in heatmaps or tables, in particular to help distributed solar interconnection customers, and this information is required by states and updated regularly.³⁴⁹ Public Interest Organizations ask the Commission to require analogous hosting capacity information to be provided by transmission providers for all potential generation locations with exemptions for urban substations where there is limited potential for generation development. PJM requests that, rather than requiring that all buses be made available in a large RTO/ISO, a transmission provider should be allowed to screen and only present the majority of the feasible points of interconnection.³⁵⁰ As an alternative to providing information at every bus, Tri-State states that a transmission provider could post the most recent cluster study to provide information for the buses that were studied as opposed to studying all buses on the system, while also making clear that the heatmap does not reflect interconnection requests in neighboring systems.³⁵¹ Similarly, Bonneville argues that cluster studies would not provide the incremental injection capacity at each bus on the transmission provider's system, which would warrant a separate study, and therefore, transmission providers should be afforded flexibility to provide this capacity information as it becomes available.³⁵²

115. Some commenters argue that the proposed heatmap is not an ideal way to present public interconnection information. For instance, Illinois Commission states that it is not immediately evident what information maps posted to an RTO/ISO website would reflect.³⁵³ For example, Illinois Commission questions whether

³⁴⁸ Eversource Initial Comments at 11.

³⁴⁹ Public Interest Organizations Initial Comments at 20 (citing National Renewable Energy Laboratory, Advanced Hosting Capacity Analysis, <https://www.nrel.gov/solar/market-research-analysis/advanced-hosting-capacity-analysis.html>).

³⁵⁰ PJM Initial Comments at 48–49.

³⁵¹ Tri-State Initial Comments at 8.

³⁵² Bonneville Initial Comments at 6–7.

³⁵³ Illinois Commission Initial Comments at 6.

congestion maps would reflect present congestion or congestion that might arise after generating facilities interconnect. Fervo Energy states that additional research might be needed to determine the most useful informational suite.³⁵⁴ Clean Energy Associations proposes, and SEIA supports, that two maps, one for Energy Resource Interconnection Service (ERIS) and one for capacity or NRIS, should be made available where appropriate, and notes that in ISO-NE overlapping impact analysis is used to determine eligibility for capacity NRIS.³⁵⁵ Finally, Clean Energy Associations and ISO-NE recommend that the Commission consider allowing information to be qualitative, such that, rather than a “hosting map,” transmission providers could post a map and accompanying report regarding system conditions at various points on the transmission system.³⁵⁶

(2) Security of Critical Information

116. Several commenters express concern that the NOPR’s proposed heatmap and/or metrics may create a security risk³⁵⁷ by, among other things, indicating areas where transmission is heavily loaded and more vulnerable to interference.³⁵⁸ In particular, LADWP and Bonneville express concerns over sharing distribution factor and MW impact, which they believe could identify highly stressed transmission lines, as well as concerns with identifying the line locations, which are not currently provided publicly.³⁵⁹ LADWP further expresses concern with CEII issues that may arise from publicly releasing a table of metrics regarding the estimated impact of a potential generating facility.³⁶⁰

117. Other commenters counter that the security risks associated with the NOPR proposal are reasonable or non-existent. For example, Pacific Northwest Utilities and Puget Sound states that the purpose of the heatmap is to provide an overview of interconnection capacity, which is unlikely to implicate CEII, and thus the risk of unrestricted critical

infrastructure information should be low.³⁶¹ Indicated PJM TOs and PPL state that a visual map with limited information, excluding reliability constraints or other particular information that could be used to identify vulnerabilities, could be made public without security concerns and highlight PJM as a good example of this.³⁶² Xcel states that it does not have security concerns about posting estimated injection capacity but that some of the more detailed information should be limited.³⁶³ MISO states that it is currently unaware of any security concerns associated with the proposal.³⁶⁴

118. While SoCal Edison and Southern assert that there should be no requirement on transmission providers to make public or display any CEII or confidential information,³⁶⁵ other commenters contend that the CEII label should not be used to unreasonably impede interconnection customers’ access to interconnection information necessary to understand the cost and other impacts of locating their projects in different areas of the transmission system.³⁶⁶ Some commenters recommend that the Commission require transmission providers to make CEII data available only to interconnection customers who meet restricted access requirements, such as through a secure portal or subject to a confidentiality agreement.³⁶⁷ Pattern Energy asks that this information be made available through a cost-free process that takes no longer than two weeks,³⁶⁸ and Pine Gate adds that the retrieval of this information should not require background checks, as required by certain transmission providers.³⁶⁹ EEI suggests that transmission providers should have the discretion to identify sensitive information that should be withheld.³⁷⁰ Clean Energy States add that the Commission may want to limit access to permitted users, controlling

the copying and dissemination of data, or take other security measures.³⁷¹

(3) Miscellaneous

119. SEIA requests that the Commission require transmission providers to use the most recent available study models as well as the most recently completed system impact study in creating their data results.³⁷²

120. A few commenters express concern with the proposal to require updated information 30 days after the completion of each cluster study and restudy and instead request that the Commission allow for regional flexibility on the timing of updates.³⁷³ MISO states that, as written, the NOPR proposal would require it to update the tool available to help interconnection customers pre-screen for potential points of interconnection each time a regional system impact study is issued, which would be numerous times during a calendar year due to the configuration of MISO’s transmission system.³⁷⁴ PJM states that it is not feasible for an RTO/ISO as large as PJM to update an interactive public interconnection information tool within 30 days after completing a cluster restudy.³⁷⁵ PJM states that, once the tool includes light load results, it will be uploading four to six datasets a year with each dataset including millions of points of interconnection flowgate records, which may eventually not be feasible to maintain from a storage perspective. According to El Paso Electric, the interconnection queue changes often as interconnection customers withdraw their requests and therefore transmission providers should not be required to update capacity line estimates monthly because the burden on staff could increase interconnection study delays.³⁷⁶ Tri-State explains that only a subset of buses and lines are studied in each cluster study, so to require an estimate of the injection capacity at every bus in each cluster study to be posted within 30 days would greatly increase the scope and cost and would likely have a negative impact on the time to complete the study and cause rates to increase.³⁷⁷

121. On the other hand, Ørsted notes that any system representation needs to

³⁵⁴ Fervo Energy Reply Comments at 3.

³⁵⁵ Clean Energy Associations Initial Comments at 12; SEIA Reply Comments at 5.

³⁵⁶ Clean Energy Associations Reply Comments at 3; ISO-NE Initial Comments at 17.

³⁵⁷ EEI Reply Comments at 9–10; Indicated PJM TOs Initial Comments at 15; LADWP Initial Comments at 3; NRECA Initial Comments at 16–17; PacifiCorp Initial Comments at 16; PPL Initial Comments at 8; SoCal Edison Initial Comments at 13–14; WIRES Reply Comments at 5–6.

³⁵⁸ LADWP Initial Comments at 3; PacifiCorp Initial Comments at 16; PPL Initial Comments at 8.

³⁵⁹ Bonneville Initial Comments at 6; LADWP Initial Comments at 3.

³⁶⁰ LADWP Initial Comments at 3.

³⁶¹ Pacific Northwest Utilities Initial Comments at 15; Puget Sound Initial Comments at 6–7.

³⁶² Indicated PJM TOs Initial Comments at 14–15; PPL Initial Comments at 8–9.

³⁶³ Xcel Initial Comments at 22.

³⁶⁴ MISO Initial Comments at 27.

³⁶⁵ SoCal Edison Initial Comments at 14; Southern Initial Comments 28.

³⁶⁶ CESA Reply Comments at 4; Google Reply Comments at 7; Pattern Energy Initial Comments at 24.

³⁶⁷ Google Reply Comments at 7; Indicated PJM TOs Initial Comments at 15; ISO-NE Initial Comments at 17; NRECA Initial Comments at 16; Pattern Energy Initial Comments at 24; SEIA Initial Comments at 6; SEIA Reply Comments at 5.

³⁶⁸ Pattern Energy Initial Comments at 24.

³⁶⁹ Pine Gate Initial Comments at 14.

³⁷⁰ EEI Initial Comments at 13.

³⁷¹ Clean Energy States Initial Comments at 5.

³⁷² SEIA Initial Comments at 6.

³⁷³ Bonneville Initial Comments at 8; El Paso Electric Initial Comments at 7; MISO Initial Comments at 26; Pacific Northwest Utilities Initial Comments at 14; PJM Initial Comments at 49; Tri-State Initial Comments at 7.

³⁷⁴ MISO Initial Comments at 26–27.

³⁷⁵ PJM Initial Comments at 49.

³⁷⁶ El Paso Electric Initial Comments at 7.

³⁷⁷ Tri-State Initial Comments at 7.

be frequently updated to be useful and avoid the risk of becoming out-of-date,³⁷⁸ and Public Interest Organizations state that hosting capacity data should be updated at least quarterly.³⁷⁹ Environmental Defense Fund argues that the public interconnection information should be updated immediately at the end of each cluster request window so that interconnection customers using that information are informed of generating facilities being studied that may impact transmission capacity.³⁸⁰

(4) Requests for Flexibility

122. Several commenters request flexibility from the Commission with respect to the particular information included in a potential heatmap.³⁸¹ Dominion asserts that the proposal is overly prescriptive and that the Commission should focus on the goal itself rather than uniformity.³⁸² Clean Energy Associations state that the heatmaps may need to be tailored to the services offered by a particular transmission provider, because their services are not uniform.³⁸³ Several commenters claim that flexibility will help ensure that the information provided is useful and understandable, and will place a reasonable level of burden on transmission providers.³⁸⁴ MISO states that flexibility is reasonable given the burden on transmission providers of maintaining a heatmap tool relative to the limited value of frequent updates given that few interconnection customers use this tool and its inability to include future queued projects that will be relevant to the prospective interconnection customer.³⁸⁵ Bonneville also argues that flexibility is needed to ensure consistency with security

requirements.³⁸⁶ On the other hand, Cypress Creek asserts that, as a broad consideration, the particular types of information to be made transparent that are valuable should be determined by the Commission in consultation with market participants who are best positioned to identify information relevant to financing and constructing new projects.³⁸⁷

123. Several commenters ask for flexibility in the way information is shared. SEIA states that whether the data are in a map or other format is not as important as the product itself.³⁸⁸ NYTOs expect that flexibility would allow regions to adopt some form of the virtual tool as long as it is clear that the information is illustrative, non-binding, and subject to change.³⁸⁹ NRECA states that smaller generation and transmission cooperatives may be able to just post a table with bus names and injection capability and present the same useful information in a more economical way.³⁹⁰ NV Energy states that, if it were to post to its OASIS the CAISO locational marginal price map with a link to CAISO's OASIS to provide a list of interchange limits and interchange schedules, this would be just as valuable as a map for its own transmission system.³⁹¹

124. Some commenters argue that transmission providers that already provide public interconnection information should have flexibility to use their existing systems to comply.³⁹² However, Environmental Defense Fund avers that this flexibility should not extend to transmission providers who, prior to the NOPR, were without a substantial public interconnection information system, because they have no sunk costs related to public interconnection information systems.³⁹³

125. Several commenters express concern that heatmaps would be technically difficult to implement outside of RTOs/ISOs and ask the Commission to provide non-RTO/ISO regions with flexibility in how they comply with the mapping tool.³⁹⁴ Tri-State states that, in non-RTO/ISO regions, it is common for multiple

transmission providers to use a single substation, making injection capacity dependent on interconnection requests in neighboring interconnection queues and their associated study assumptions.³⁹⁵ Tri-State, therefore, encourages the Commission to permit variations among heatmaps, adding that entities in non-RTOs/ISOs should not be required to study every bus.³⁹⁶

126. Xcel recommends that the Commission consider applying the requirement only in RTO/ISO regions or granting non-RTO/ISO transmission providers sufficient time, such as two years, to comply.³⁹⁷ WAPA asks the Commission to first require data visualization by larger utilities, wait approximately 18 months after implementation, and then measure the benefits of interactive tools produced by larger utilities, giving stakeholders a chance to comment before extending the heatmap requirement.³⁹⁸

127. On the other hand, some commenters expressly argue that uniformity should be required inside and outside of RTO/ISO regions.³⁹⁹ Google states that such publicly available information would begin to address the critical information advantage that transmission owners have over independent power producers, particularly in non-RTO/ISO regions.⁴⁰⁰ R Street notes that non-RTO/ISO regions may have additional challenges in implementing such a tool but states that this should not eliminate their requirement to do so and those regions could be granted extra implementation time.⁴⁰¹

(d) Requests for Clarification or Technical Conference

128. Several commenters seek clarification on the information transmission providers are required to present in the heatmap, use of that information, who has the responsibility of presenting the information, timing of updating that information and recovery of costs for providing this information. PJM asks that the Commission clarify that an interactive visual congestion map could comply, instead of requiring its specific form.⁴⁰²

129. APPA-LPPC ask the Commission to clarify that it is not proposing that

³⁷⁸ Ørsted Initial Comments at 6.

³⁷⁹ Public Interest Organizations Initial Comments at 20.

³⁸⁰ Environmental Defense Fund Initial Comments at 3.

³⁸¹ Avangrid Initial Comments at 21–22; Bonneville Initial Comments at 6–8; Dominion Initial Comments at 14; MISO Initial Comments at 27; NY Commission and NYSDERDA Initial Comments at 8; NYTOs Initial Comments at 8; Pacific Northwest Utilities Initial Comments at 14; PJM Initial Comments at 48; Puget Sound Initial Comments at 6; SEIA Initial Comments at 6; Southern Initial Comments at 28; SPP Initial Comments at 4; WAPA Initial Comments at 7–8.

³⁸² Dominion Initial Comments at 13.

³⁸³ Clean Energy Associations Initial Comments at 12.

³⁸⁴ Avangrid Initial Comments at 21–22; Bonneville Initial Comments at 6–8; Cypress Creek Initial Comments at 14; MISO Initial Comments at 27; NY Commission and NYSDERDA Initial Comments at 7–8; NYTOs Initial Comments at 8; Pacific Northwest Utilities Initial Comments at 14; WAPA Initial Comments at 8.

³⁸⁵ MISO Initial Comments at 26–27.

³⁸⁶ Bonneville Initial Comments at 6.

³⁸⁷ Cypress Creek Initial Comments at 14.

³⁸⁸ SEIA Initial Comments at 6.

³⁸⁹ NYTOs Initial Comments at 9.

³⁹⁰ NRECA Initial Comments at 16.

³⁹¹ NV Energy Initial Comments at 10.

³⁹² Environmental Defense Fund Reply Comments at 4; OMS Initial Comments at 6.

³⁹³ Environmental Defense Fund Reply Comments at 4.

³⁹⁴ Dominion Initial Comments at 12–14; NRECA Initial Comments at 16; NV Energy Initial Comments at 10; PPL Initial Comments at 9; Puget Sound Initial Comments at 5–6; Tri-State Initial Comments at 8.

³⁹⁵ Tri-State Initial Comments at 8.

³⁹⁶ *Id.*; see also Eversource Initial Comments at 11.

³⁹⁷ Xcel Initial Comments at 22.

³⁹⁸ WAPA Initial Comments at 8.

³⁹⁹ Environmental Defense Fund Reply Comments at 3; Fervo Energy Reply Comments at 3; Google Initial Comments at 6; R Street Initial Comments at 10.

⁴⁰⁰ Google Reply Comments at 6.

⁴⁰¹ R Street Initial Comments at 10.

⁴⁰² PJM Initial Comments at 48.

transmission providers be required to conduct any individualized analyses or take any action in response to particular prospective interconnection customers' use of the interactive tools.⁴⁰³

130. Some commenters request that the Commission make clear that the public information is published only as a guide and not as a binding or definitive statement of available interconnection capacity or costs.⁴⁰⁴ Xcel asks the Commission to clarify that transmission providers have no liability associated with the posting of public information.⁴⁰⁵ EEI urges the Commission to make clear that interconnection customers that rely exclusively on this information, including these maps, do so at their own risk.⁴⁰⁶

131. Eversource asks that the Commission clarify that "no information would be required to be made available before the conclusion of the first cluster study."⁴⁰⁷

132. Dominion seeks clarification that, in an RTO/ISO context, the proposed requirements to maintain a visual representation would apply to the RTO/ISO, and not additionally to individual transmission owners.⁴⁰⁸

133. Several commenters request clarification on how the public information proposal will be funded.⁴⁰⁹ Some commenters assert that a user-pays model is the only appropriate funding mechanism because not all interconnection customers will use the public information tools, and the transmission provider or their customers should not be required to pay for work that only benefits some.⁴¹⁰ Tri-State asserts that it might increase the \$5,000 application fee to cover the significant heatmap costs.⁴¹¹

134. AEP, Tesla, and ACORE ask the Commission to initiate a proceeding and hold a technical conference to, among other things, identify useful information tools that could be feasibly developed, establish uniform and transparent study

assumptions, share best practices, and help less sophisticated interconnection customers learn to use available tools and information to lessen their own risk before entering an interconnection queue.⁴¹²

iii. Commission Determination

135. We adopt, without modification, the NOPR proposal to revise *pro forma* LGIP section 6.4, now section 6.1, to require transmission providers to publicly post available information pertaining to generator interconnection (*i.e.*, public interconnection information or a heatmap). We require transmission providers to update the heatmap within 30 calendar days after the completion of each cluster study and cluster restudy. Such heatmaps must be calculated under N-1 conditions and studied based on the power flow model of the transmission system with the transfer simulated from each point of interconnection to the whole transmission provider's footprint (to approximate NRIS), and with the incremental capacity at each point of interconnection decremented by the existing and queued generation at that location (based on the existing or requested interconnection service limit of such generation). We require transmission providers to provide the following information as outputs at each point of interconnection: (1) the distribution factor; (2) the MW impact (based on the proposed project size and the distribution factor); (3) the percentage impact on each impacted transmission facility (based on the MW values of the proposed project and the facility rating); (4) the percentage of power flow on each impacted transmission facility before the proposed project; and (5) the percentage power flow on each impacted transmission facility after the injection of the proposed project.

136. We find that the benefit of providing further transparency to interconnection customers about potential points of interconnection outweighs the added administrative burden to transmission providers. Commenters generally support supplementing the existing publicly available interconnection information and note their broad support for the NOPR proposal.⁴¹³ Many commenters

further assert that the heatmap will provide valuable information to interconnection customers before they enter the interconnection queue,⁴¹⁴ and as SEIA explains, interconnection customers currently lack substantial information prior to entering the interconnection queue, which is valuable in determining whether to proceed with a proposed generating facility.⁴¹⁵ In particular, the information that we require transmission providers to provide to prospective interconnection customers will allow such interconnection customers to learn about available interconnection capacity as well as other metrics that reflect the impact of the addition of a proposed generating facility to the transmission provider's transmission system at a particular point of interconnection. Such information may allow a prospective interconnection customer to estimate expected congestion,⁴¹⁶ and, in turn, to assess likely network upgrades triggered by a proposed generating facility or the possibility of curtailment of a proposed generating facility.

137. With access to this type of information, a prospective interconnection customer will be able to better assess the viability of a proposed generating facility before it submits an interconnection request and therefore may be able to submit fewer exploratory

Commission Initial Comments at 8; Consumers Energy Initial Comments at 3; CREA and NewSun Initial Comments at 44–45; Duke Southeast Utilities Initial Comments at 6; Environmental Defense Fund Initial Comments at 3; Environmental Defense Fund Reply Comments at 2–3; ELCON Initial Comments at 4; ENGIE Initial Comments at 2; Evergreen Action Initial Comments at 3; Fervo Energy Initial Comments at 2; Google Initial Comments at 14; Google Reply Comments at 6; Illinois Commission Initial Comments at 6; Interwest Initial Comments at 7; New Jersey Commission Initial Comments at 11–12; Northwest and Intermountain Initial Comments at 9–10; NY Commission and NYSDERDA Initial Comments at 8; Ørsted Initial Comments at 7; Pattern Energy Initial Comments at 23; Pine Gate Initial Comments at 13; Public Interest Organizations Initial Comments at 18–19; R Street Initial Comments at 8, 10; R Street Reply Comments at 2; Southern Initial Comments at 28; Tesla Initial Comments at 6–7; Vistra Initial Comments at 1, 4.

⁴¹⁴ Alliant Energy Initial Comments at 5; Clean Energy Associations Initial Comments at 12; CREA and NewSun Initial Comments at 44–45; Duke Southeast Utilities Initial Comments at 6; EEI Initial Comments at 12–13; ELCON Initial Comments at 6; ENGIE Initial Comments at 2; Evergreen Action Initial Comments at 3; Fervo Energy Initial Comments at 2–3; Google Initial Comments at 4; Illinois Commission Initial Comments at 6; Indicated PJM TOs Initial Comments at 14; Indicated PJM TOs Reply Comments 6; ISO–NE Initial Comments at 26–27; New Jersey Commission Initial Comments at 12; NY Commission and NYSDERDA Initial Comments at 8; Ohio Commission Consumer Advocate Initial Comments at 7; Pacific Northwest Utilities Initial Comments at 13; SEIA Initial Comments at 5.

⁴¹⁵ SEIA Initial Comments at 6.

⁴¹⁶ Google Initial Comments at 14.

⁴⁰³ APPA–LPPC Initial Comments at 13–14.

⁴⁰⁴ AECI Initial Comments at 5; AEE Initial Comments at 9; AEP Initial Comments at 13; Ameren Initial Comment at 6; CAISO Initial Comments at 8; Duke Southeast Utilities Initial Comments at 6–7; EEI Initial Comments at 12–13; National Grid Initial Comments at 8–9; New York State Department Initial Comments at 8; NYISO Initial Comments at 17; NYTOs Initial Comments at 9.

⁴⁰⁵ Xcel Initial Comments at 22.

⁴⁰⁶ EEI Initial Comments at 13.

⁴⁰⁷ Eversource Initial Comments at 11.

⁴⁰⁸ Dominion Initial Comments at 14.

⁴⁰⁹ National Grid Initial Comments at 8; PacifiCorp Initial Comments at 14; Tri-State Initial Comments at 7–8.

⁴¹⁰ National Grid Initial Comments at 8; PacifiCorp Initial Comments at 14.

⁴¹¹ Tri-State Initial Comments at 8.

⁴¹² ACORE Reply Comments at 3, AEP Initial Comments at 13, 15; Tesla Initial Comments at 6.

⁴¹³ ACE–NY Initial Comments at 11; AES Initial Comments at 3; Affected Interconnection Customers Initial Comments at 30; APPA–LPPC Initial Comments at 13; CAISO Initial Comments at 7; CESA Initial Comments at 7; Clean Energy Associations Initial Comments at 12; Clean Energy Buyers Initial Comments at 6–7; Colorado

and unviable interconnection requests. We believe that, by reducing the number of speculative interconnection requests, this reform will reduce the delays caused by restudies triggered by interconnection request withdrawals and overcrowded interconnection queues.⁴¹⁷ We believe that this information is also beneficial in the cluster study context, contrary to some commenters' concerns regarding the availability of information about the composition of the cluster and the effect of the other proposed generating facilities in the cluster. In fact, interconnection customers will be able to evaluate the viability of their proposed generating facility in the context of a cluster by using the publicly posted information as a baseline and incorporating the cluster information that transmission providers are required to post, during the customer engagement window, per new *pro forma* LGIP section 3.4.5 (Customer Engagement Window). Further, the heatmap requirement will standardize the information available to interconnection customers across regions and such standardization will provide interconnection customers with consistency as they assess the viability of proposed generating facilities, including where to site them, across regions.⁴¹⁸ Despite MISO's assertion that interconnection customers typically use their own tools to conduct analyses, as opposed to MISO's heatmap, several commenters identify MISO's heatmap tool as an example of a transmission provider posting generator interconnection information that is useful for prospective interconnection customers.⁴¹⁹ Therefore, we continue to

find that it is important to make similar information available to prospective interconnection customers across the country to ensure comparable access to information and the above mentioned resultant benefits of such information for the interconnection process.

138. Some commenters assert that the NOPR proposal is not useful⁴²⁰ in part because it does not provide sufficient detail and may not correspond with future study conditions,⁴²¹ its usefulness depends on its implementation,⁴²² and it is unlikely to address cost uncertainty challenges.⁴²³ In response to such objections, we find that the public interconnection information requirements we adopt in this final rule will provide further transparency of interconnection conditions, but, as we have acknowledged above, will remain non-binding and therefore cannot provide cost certainty. We recognize that this requirement does not provide real-time transmission system information, but we find that this information is valuable to prospective interconnection customers before they enter the interconnection queue.

139. We disagree with commenters that assert that the NOPR proposal is overly burdensome.⁴²⁴ By moving the *pro forma* LGIP from a serial to a cluster study process, the reforms adopted in this final rule will reduce the number of studies and restudies performed by

Initial Comments at 3; Fervo Energy Initial Comments at 2; Google Initial Comments at 14; Google Reply Comments at 6; Illinois Commission Initial Comments at 6; Interwest Initial Comments at 7; New Jersey Commission Initial Comments at 11–12; Northwest and Intermountain Initial Comments at 9–10; NY Commission and NYSEDA Initial Comments at 8; Ørsted Initial Comments at 7; Pattern Energy Initial Comments at 23; Pine Gate Initial Comments at 13; Public Interest Organizations Initial Comments at 18–19; R Street Initial Comments at 8, 10; Southern Initial Comments at 28; Tesla Initial Comments at 6–7; Vistra Initial Comments at 1, 4.

⁴²⁰ Dominion Initial Comments at 13; Idaho Power Initial Comments at 3; ISO-NE Initial Comments at 17; NextEra Initial Comments at 12; New York State Department Initial Comments at 8; NYISO Initial Comments at 17; Omaha Public Power Initial Comments at 4; PacifiCorp Initial Comments at 14.

⁴²¹ Dominion Initial Comments at 13; New York State Department Initial Comments at 8; Omaha Public Power Initial Comments at 4.

⁴²² Indicated PJM TOs Initial Comments at 14; New York State Department Initial Comments at 8; NYTOs Initial Comments at 9; SPP Initial Comments at 4.

⁴²³ AEE Initial Comments at 9; Cypress Creek Initial Comments at 13.

⁴²⁴ Dominion Initial Comments at 13; National Grid Initial Comments at 8; New York State Department Initial Comments at 8; NextEra Initial Comments at 12; Omaha Public Power Initial Comments at 4; Pacific Northwest Utilities Initial Comments at 14; PPL Initial Comments at 9; Tri-State Initial Comments at 4; WAPA Initial Comments at 7.

transmission providers, therefore reducing the burden on both transmission providers and their staff. In addition, as commenters assert, and we agree, the information posting and interactive capability we require in this final rule could feasibly be implemented with available industry system simulation tools.⁴²⁵ We also agree with Clean Energy Associations that providing these data in a standardized format should be a “relatively low-impact” requirement for transmission providers.⁴²⁶ This appears to be consistent with comments from Dominion that suggests that the majority of the burden associated with complying with this reform will be through an up-front financial commitment in new software, rather than ongoing costs.⁴²⁷ Having made such software commitments, though, transmission providers should be able to automate much of the heatmap development, without significant commitments of staff or resources. In doing so, we expect the ongoing costs of maintaining such a heatmap to be relatively low. Moreover, because transmission providers must use the most recent cluster study or cluster restudy to populate the heatmap, they will not face the burden of individualized analyses, which addresses the concern raised by some commenters.⁴²⁸

140. We adopt the requirement for transmission providers to update the heatmaps within 30 calendar days after the completion of each cluster study and cluster restudy. We recognize the need to balance the burden of a specific update frequency with the value of ensuring uniform, up-to-date information that can inform prospective interconnection customers evaluating whether to enter the next cluster. While some commenters support the timeline proposed in the NOPR,⁴²⁹ others argue that it is overly burdensome or, given the division of their footprint into regions that have different timelines, would trigger frequent updates. We find that the requirements we adopt here

⁴²⁵ APPA–LPPC Initial Comments at 13; Pennsylvania Commission Initial Comments at 13, which explains that transmission providers are already implementing these tools further illustrates the point: heatmaps will not likely cause further delay in already-stressed queues.

⁴²⁶ Clean Energy Associations Initial Comments at 23–13; *see also* ACORE Reply Comments at 3 (stating that collaboration to increase automation of interconnection studies is a best practice that could be adopted elsewhere).

⁴²⁷ Dominion Initial Comments at 12.

⁴²⁸ *See* APPA–LPPC Initial Comments at 13–14.

⁴²⁹ Environmental Defense Fund Initial Comments at 3; Ørsted Initial Comments at 6; Public Interest Organizations Initial Comments at 20.

⁴¹⁷ *See* CESA Initial Comments at 9; CESA Reply Comments at 3; Consumers Energy Initial Comments at 3; CREA and NewSun Initial Comments at 44–45; Duke Southeast Utilities Initial Comments at 6; Environmental Defense Fund Initial Comments at 3; EEI Initial Comments at 12–13; ELCON Initial Comments at 6; Evergreen Action Initial Comments at 3; Google Initial Comments at 14; Illinois Commission Initial Comments at 6–7; New Jersey Commission Initial Comments at 12; NY Commission and NYSEDA Initial Comments at 8; Pacific Northwest Utilities Initial Comments at 13; SEIA Initial Comments at 5.

⁴¹⁸ *See, e.g.*, Alliant Energy Initial Comments at 5; Clean Energy Associations Initial Comments at 12.

⁴¹⁹ ACE–NY Initial Comments at 11; AES Initial Comments at 3; Affected Interconnection Customers Initial Comments at 30; APPA–LPPC Initial Comments at 13; CAISO Initial Comments at 7; CESA Initial Comments at 7; Clean Energy Associations Initial Comments at 12; Clean Energy Buyers Initial Comments at 6–7; Colorado Commission Initial Comments at 8; Consumers Energy Initial Comments at 3; CREA and NewSun Initial Comments at 44–45; Duke Southeast Utilities Initial Comments at 6; Environmental Defense Fund Initial Comments at 3; ELCON Initial Comments at 4; ENGIE Initial Comments at 2; Evergreen Action

establish an appropriate period of time because, as discussed above, once the necessary software is in place, updating the heatmap after the completion of a study is expected to be largely automated without significant commitments of staff or resources. As the record demonstrates, such heatmaps can be implemented with available industry system simulation tools⁴³⁰ and with a standardized format that causes the burden to be a “relatively low-impact” requirement for transmission providers,⁴³¹ once transmission providers have invested in new software.⁴³²

141. In response to Eversource, which asks the Commission to clarify that the heatmap would not be required to be made available before the first cluster study concludes,⁴³³ we agree and further clarify that the heatmap would not be required to be made available until after the transition period. In response to El Paso Electric’s comments regarding the burden of a monthly update,⁴³⁴ we clarify that the heatmaps must be updated within 30 calendar days after the completion of each cluster study and cluster restudy, not on a cycle of every 30 calendar days.

142. In response to comments from PJM, Bonneville, and Tri-State requesting flexibility for the posting of information for points of interconnection that have yet to be studied,⁴³⁵ we clarify that transmission providers need to provide updates only for anything that has changed in the most recent cluster study or restudy after the first cluster study after the Commission-approved effective date of the transmission provider’s filing in compliance with this final rule. Requiring transmission providers to study each potential point of interconnection, rather than just those requested in each cluster, would expand the scope of this requirement. In turn, requiring such expanded studies would be inconsistent with ensuring that interconnection customers are able to interconnect in a reliable, efficient, transparent, and timely manner. In response to PJM, which states that transmission providers should be allowed to use prescreened datasets that

capture a majority of the feasible points of interconnection that remove existing generator buses on the low side of the generator step-up unit, rather than using all buses to populate the heatmap,⁴³⁶ we agree that the heatmap may not differ significantly between the existing generating facility’s point of interconnection on the low voltage side of the generating facility’s step-up unit and the high voltage side of the step-up unit. If that is the case, this final rule provides transmission providers with the flexibility to populate the heatmap with only the high side of the step-up unit.

143. In response to comments arguing that the Commission has failed to demonstrate that information already made available is inadequate,⁴³⁷ we disagree. The heatmap requirement is distinct from information that transmission providers are already required to provide. The existing *pro forma* LGIP requires transmission providers to post the interconnection models and assumptions on OASIS or a password-protected website. But the information that we require to be posted in compliance with this final rule is the output of such models and assumptions. We believe that publicly posting such resulting output is necessary to aid prospective interconnection customers in their decision-making prior to entering the interconnection queue. While interconnection customers, on their own or through the hiring of consultants, may be capable of performing studies with information already published by transmission providers to arrive at information similar to that required as part of this final rule, we believe that making high-level information more easily accessible to all prospective interconnection customers is needed to remedy unjust and unreasonable Commission-jurisdictional rates. While Order No. 845 and FERC Form 715 do require certain, more detailed information to be filed with the Commission and/or posted on OASIS or a password-protected website,⁴³⁸ access to this information has not addressed the problem of speculative interconnection requests that we aim to remedy with

several reforms adopted in this final rule.

144. We recognize the need to balance security concerns with the benefits of additional transparency. While some commenters express security-related concerns with the NOPR proposal,⁴³⁹ as discussed below, we are not modifying the Commission’s CEII procedures,⁴⁴⁰ which we believe are sufficient to address security concerns raised in comments. Some commenters state that publicly posting information that indicates areas of transmission congestion or constraints is a risk as these areas are more vulnerable. We are not persuaded by these concerns and note that location-specific congestion information is already publicly available in RTO/ISO markets. Moreover, the Commission’s regulations already provide that, upon request, transmission providers must make available all data used to calculate available transfer capability, total transfer capability, capacity benefit margin, and transmission reliability margin for any constrained posted paths publicly available (including the limiting element(s) and the cause of the limit (e.g., thermal, voltage, stability)).⁴⁴¹ Additionally, we find these concerns to be speculative, particularly in light of the fact that MISO already provides similar information over a large area. Rather, we agree with those commenters that do not believe that the NOPR proposal introduces additional security concerns.⁴⁴²

145. In response to concerns from PPL and LADWP regarding the distribution factor analysis being made public,⁴⁴³ we are not persuaded and find these concerns to be speculative as well. MISO has long made distribution factors publicly available and states it is currently unaware of any security concerns associated with the proposal.⁴⁴⁴ As such, there is no evidence in the record to suggest this posting has raised any concerns in the past. Moreover, we observe that the distribution factor analyses informing the heatmaps are the result of multi-year forward projections that inevitably

⁴³⁰ APPA–LPPC Initial Comments at 13–14; Pennsylvania Commission Initial Comments at 13.

⁴³¹ Clean Energy Associations Initial Comments at 23–13; *see also* ACORE Reply Comments at 3 (stating that collaboration to increase automation of interconnection studies is a best practice that could be adopted elsewhere).

⁴³² Dominion Initial Comments at 12.

⁴³³ Eversource Initial Comments at 11.

⁴³⁴ El Paso Electric Initial Comments at 7.

⁴³⁵ Bonneville Initial Comments at 6; PJM Initial Comments at 48–49; Tri-State Initial Comments at 8.

⁴³⁶ PJM Initial Comments at 48–49.

⁴³⁷ APPA–LPPC Initial Comments at 9; Duke Southeast Utilities Initial Comments at 6–7; Idaho Power Initial Comments at 3; New York State Department Initial Comments at 8; NV Energy Initial Comments at 10; NYISO Initial Comments at 17; Ohio Commission Consumer Advocate Initial Comments at 6–7; PacifiCorp Initial Comments at 14–15; PG&E Initial Comments at 9–10; SoCal Edison Initial Comments at 14.

⁴³⁸ Order No. 845, 163 FERC ¶ 61,043 at P 236.

⁴³⁹ Bonneville Initial Comments at 6; Indicated PJM TOs Initial Comments at 15; LADWP Initial Comments at 3; NRECA Initial Comments at 16–17; PacifiCorp Initial Comments at 16; PPL Initial Comments at 8; SoCal Edison Initial Comments at 13–14.

⁴⁴⁰ 18 CFR 388.113 (2022), which govern “the procedures for submitting, designating, handling, sharing, and disseminating [CEII] submitted to or generated by the Commission” (emphasis added).

⁴⁴¹ 18 CFR 37.6(b)(2) (2022).

⁴⁴² MISO Initial Comments at 27.

⁴⁴³ LADWP Initial Comments at 3; PPL Initial Comments at 8–9.

⁴⁴⁴ MISO Initial Comments at 27.

diverge from actual, real-time conditions, mitigating any potential concerns with publicly posting this information.

146. We are similarly unpersuaded by potential data confidentiality concerns.⁴⁴⁵ As with distribution factors, we find such concerns to be speculative and contrary to the experience of MISO, which, for the last several years, has already provided this information publicly,⁴⁴⁶ as well as contrary to the statements of commenters that support the NOPR proposal and do not raise data confidentiality concerns.⁴⁴⁷

147. We provide further clarification in response to comments regarding the scope of analysis and assumptions which must provide the basis for the heatmaps. In response to comments from Public Interest Organizations,⁴⁴⁸ we decline to specifically require the heatmap to be studied at high load conditions. Instead, we reiterate that such heatmap should be based on the power flow model of the cluster study or restudy. While such cluster studies are often simulated at high load conditions, we understand that transmission providers typically conduct interconnection studies by studying a variety of situations. As such, we clarify that the information posted, for consistency and actionability, must not only be based on the cluster studies, but also must reflect the most limiting

result of each of these situations studied.

148. We find that it is necessary for the heatmaps to reflect N–1 conditions because transmission systems are operated to withstand N–1 contingencies. To the extent that such information was not calculated under N–1 conditions, the results would not be useful or sufficiently actionable to potential interconnection customers. As Eversource asserts, point of interconnection level information would be too simplistic if it is based only on N–0 conditions and would not provide prospective interconnection customers with the information necessary to select viable points of interconnection.⁴⁴⁹ Similarly, we find that it is necessary for such posted information to approximate NRIS because such level of interconnection service is generally subject to more stringent requirements and therefore, reflecting this type of service will cover both types of interconnection requests, whether they are NRIS or ERIS.⁴⁵⁰ Similar to information calculated under only N–0 conditions, to the extent such a heatmap was not calculated to approximate NRIS, the results would not be useful or sufficiently actionable to a significant portion of interconnection customers.

149. In response to comments from AES,⁴⁵¹ we decline to require the heatmaps to include a five-year outlook of available interconnection capacity. The purpose of the heatmaps is to provide potential interconnection customers an idea of the amount of interconnection capacity available at the conclusion of each cluster study or restudy. Because we are requiring transmission providers to consider pending generating facilities when collating the information to make

public, interconnection customers will be aware of some of the future conditions on the transmission system. Further, any requirement to produce forecasts would place an additional burden on transmission providers that we find would outweigh its usefulness to interconnection customers.

150. In response to comments from Alliant Energy and Clean Energy Associations arguing that the assumptions used to produce the heatmap should be made clear to users,⁴⁵² we find that the assumptions used to produce the heatmap should be consistent with those used in the interconnection cluster studies. As those assumptions are already required to be publicly posted, along with the models themselves,⁴⁵³ the assumptions used to produce the heatmap will be publicly posted via these preexisting requirements.

151. Tri-State describes difficulties associated with multiple transmission providers that inhabit a single substation. In such situations, we clarify that transmission providers must populate the required heatmaps using the results from their interconnection studies. In response to the Illinois Commission, we clarify that the heatmaps must represent potential congestion that might result after a generating facility interconnects, not present congestion values. The heatmap must reflect the base case assumptions from the most recent cluster study or cluster restudy. Such studies are not intended to analyze current operational conditions.

152. We next respond to specific objections raised regarding the heatmaps' required level of granularity and scope, requested flexibilities regarding alternatives to the adopted reform, and clarifications regarding which transmission providers are required to provide heatmaps, whether heatmaps are non-binding, and how costs related to the heatmaps requirement are to be recovered. We decline to alter the level of granularity of the heatmaps from that proposed in the NOPR. As Ameren and MISO attest,⁴⁵⁴ the five data points proposed in the NOPR are reasonable and sufficient to provide a high-level comparison between several points of interconnection, and therefore to satisfy the goals of this reform.

⁴⁴⁵ Bonneville Initial Comments at 6; PPL Initial Comments at 9.

⁴⁴⁶ Rod Walton, *MISO Introduces New Generation Interconnection Online Tool*, Power and Engineering (May 19, 2020), at <https://www.power-eng.com/om/miso-introduces-new-generation-interconnection-online-tool/#gref>.

⁴⁴⁷ Affected Interconnection Customers Initial Comments at 30; AES Initial Comments at 3; ACE–NY Initial Comments at 11; APPA–LPPC Initial Comments at 13; CAISO Initial Comments at 7; CESA Initial Comments at 7; Clean Energy Associations Initial Comments at 12; Clean Energy Buyers Initial Comments at 7–8; Colorado Commission Initial Comments at 8; Consumers Energy Initial Comments at 3; CREA and NewSun Initial Comments at 44–45; Duke Southeast Utilities Initial Comments at 6; Environmental Defense Fund Initial Comments at 3; ELCON Initial Comments at 4; ENGIE Initial Comments at 2; Evergreen Action Initial Comments at 3; Fervo Energy Initial Comments at 2; Google Initial Comments at 14; Google Reply Comments at 6; Interwest Initial Comments at 7; Illinois Commission Initial Comments at 6; New Jersey Commission Initial Comments at 11–12; NY Commission and NYSERDA Initial Comments at 8; Northwest and Intermountain Initial Comments at 9–10; Ørsted Initial Comments at 7; Pine Gate Initial Comments at 13; Public Interest Organizations Initial Comments at 18–19; R Street Initial Comments at 8, 10; Southern Initial Comments at 28; Tesla Initial Comments at 6–7; Vistra Initial Comments at 1,4.

⁴⁴⁸ Public Interest Organizations Initial Comments at 20.

⁴⁴⁹ Eversource Initial Comments at 11.

⁴⁵⁰ Specifically, the *pro forma* LGIP defines NRIS service as “an Interconnection Service that allows the Interconnection Customer to integrate its Large Generating Facility with the Transmission Provider’s Transmission System (1) in a manner comparable to that in which the Transmission Provider integrates its generating facilities to serve native load customers; or (2) in an RTO or ISO with market-based congestion management, in the same manner as Network Resources. Network Resource Interconnection Service in and of itself does not convey transmission service.” *Pro forma* LGIP section 1. Whereas, the *pro forma* LGIP defines ERIS as “an Interconnection Service that allows the Interconnection Customer to connect its Generating Facility to the Transmission Provider’s Transmission System to be eligible to deliver the Generating Facility’s electric output using the existing firm or nonfirm capacity of the Transmission Provider’s Transmission System on an as available basis. Energy Resource Interconnection Service in and of itself does not convey transmission service.” *Id.* (emphasis added).

⁴⁵¹ AES Initial Comments at 5–7.

⁴⁵² Alliant Energy Initial Comments at 5; Clean Energy Associations Initial Comments at 12–13.

⁴⁵³ Order No. 845, 163 FERC ¶ 61,043 at P 236; *pro forma* LGIP section 2.3.

⁴⁵⁴ Ameren Initial Comments at 5; Bonneville Initial Comments at 7; Clean Energy Buyers Initial Comments at 7–8; MISO Initial Comments at 25.

153. Similarly, consistent with support from ENGIE and SEIA,⁴⁵⁵ we adopt the scope of the heatmap requirement proposed in the NOPR, which is the amount of point of interconnection-level interconnection capacity available to be injected at each point of interconnection. We decline to expand the scope of the reporting. We believe that the scope of information that we require transmission providers to publicly post appropriately balances the burdens on transmission providers associated with providing this information with the benefits that might be realized by prospective interconnection customers of having ready access to this information. In response to Dominion, which argues that point of interconnection-level information may not necessarily be useful because, in a networked system, injection at one point of interconnection will affect the capability at other points of interconnection,⁴⁵⁶ we agree that injections at one location affect capabilities at other locations. Because the information provided by the transmission provider accounts for full transmission system conditions, interconnection customers should have the information they need to approximate the impact of their potential generating facility on the transmission system. For example, interconnection customers will know if they are proposing to interconnect near constrained regions even if those constraints are not necessarily at the proposed point of interconnection.

154. We decline to require transmission providers to provide additional interconnection information metrics, as requested by some commenters.⁴⁵⁷ While we are supportive of increased transparency, we are not persuaded that the benefits of such information would outweigh the burden of tabulating and posting such information.

155. In response to ISO-NE, we decline to require that the heatmap be qualitative only.⁴⁵⁸ We find that providing information only qualitatively

would not provide interconnection customers information they could use to adequately mitigate risks such as obtaining site control and providing significant deposits to the transmission provider in order to enter the interconnection queue. Thus, providing only qualitative information would be insufficient to address the lack of information available to interconnection customers prior to entering the interconnection queue, which leads to speculative interconnection requests and the problems identified in the need for reform section above.

156. In response to requests for flexibility for transmission providers to identify and post alternative heatmaps,⁴⁵⁹ we decline to grant such additional flexibility. In this final rule, we establish a set of required information that transmission providers must publicly provide. We believe that this level of information is what is needed to address the lack of information available to interconnection customers prior to entering the interconnection queue, and therefore remedy the unjust and unreasonable Commission-jurisdictional rates discussed in section II of this final rule. We therefore disagree that the proposal is overly prescriptive,⁴⁶⁰ as we believe that the required information is necessary to adequately inform prospective interconnection customers. While we establish a set of required information, in response to comments from Clean Energy Associations that the heatmap may need to be tailored to the services offered by a particular transmission provider,⁴⁶¹ and comments from Bonneville that flexibility would allow transmission providers to determine whether a different methodology would more clearly identify interconnection capability for interconnection customers,⁴⁶² we note that if transmission providers find value in providing additional or different information, they may propose such variations on compliance.

157. While we acknowledge that, as a result of the relative interconnection queue sizes and load levels, many

transmission providers may have heatmaps that indicate negative interconnection capacity and thereby would simply be “red,”⁴⁶³ we agree with R Street that providing a visual representation of available interconnection capacity is a best practice and should be required nationwide.⁴⁶⁴ Moreover, we find that there is value in providing an all “red” heatmap, as such information will demonstrate to prospective interconnection customers the potential and likely network upgrade-related consequences associated with interconnecting. In other words, an all “red” heatmap sends a valuable signal to interconnection customers regarding where proposed generating facilities may be more or less economic to interconnect prior to entering the interconnection queue.

158. Not only is there value in requiring this information from all transmission providers, we are not persuaded that the burden is so great as to outweigh the benefits for non-RTO/ISO transmission providers and for smaller transmission providers.⁴⁶⁵ We acknowledge that RTOs/ISOs are operationally different from their non-RTO/ISO counterparts and that RTOs/ISOs are often more technologically advanced, but the requirement is to reproduce interconnection studies and publish the results in a heatmap. No commenter attests that existing interconnection studies in non-RTO/ISO regions fail to evaluate point of interconnection-level interconnection injection capability. Moreover, we find that by publicly reproducing the results of existing interconnection studies, the heatmaps will address the need for additional interconnection information that exists in both RTOs/ISOs and non-RTOs/ISOs. In other words, we find that there are unjust and unreasonable Commission-jurisdictional rates stemming from the lack of this information for prospective interconnection customers both within and outside of RTOs/ISOs and that this problem must be remedied.

Additionally, as Environmental Defense Fund comments, at least one other relatively small transmission owner posts an interactive capacity heatmap for its distribution system comparable to

⁴⁵⁵ ENGIE Initial Comments at 2–3; SEIA Initial Comments at 5.

⁴⁵⁶ Dominion Reply Comments at 8–9.

⁴⁵⁷ AEP Initial Comments at 13; AES Initial Comments at 5–7; Bonneville Initial Comments at 5; Clean Energy Associations Initial Comments at 12–13; CREA and NewSun Initial Comments at 43–44; ENGIE Initial Comments at 3; Eversource Initial Comments at 11; Google Initial Comments at 6, 14; Hannon Armstrong Initial Comments at 2; Pattern Energy Initial Comments at 23; Pine Gate Initial Comments at 14; Public Interest Organizations Reply Comments at 11–12; SEIA Initial Comments at 6; SoCal Edison Initial Comments at 14–15; Tesla Initial Comments at 7.

⁴⁵⁸ Eversource Initial Comments at 11.

⁴⁵⁹ Avangrid Initial Comments at 21–22; Bonneville Initial Comments at 6–8; Clean Energy Associations Initial Comments at 12; Dominion Initial Comments at 14; MISO Initial Comments at 27; NY Commission and NYSEDA Initial Comments at 8; NYTOs Initial Comments at 8; Pacific Northwest Utilities Initial Comments at 14; PJM Initial Comments at 48; Puget Sound Initial Comments at 6; SEIA Initial Comments at 6; Southern Initial Comments at 28; WAPA Initial Comments at 7–8.

⁴⁶⁰ Dominion Initial Comments at 13.

⁴⁶¹ Clean Energy Associations Initial Comments at 12.

⁴⁶² Bonneville Initial Comments at 7–8.

⁴⁶³ See PacifiCorp Initial Comments at 15.

⁴⁶⁴ See R Street Initial Comments at 10.

⁴⁶⁵ Dominion Initial Comments at 12; NRECA Initial Comments at 16; NV Energy Initial Comments at 10; PPL Initial Comments at 9; Puget Sound Initial Comments at 5–6; Tri-State Initial Comments at 7–8.

that required by this final rule.⁴⁶⁶ Thus, contrary to comments from PPL,⁴⁶⁷ we find that smaller transmission providers are able to provide this information to prospective interconnection customers and that the benefits outweigh the burdens.

159. In response to comments from the NY Commission and NYSERDA asking for flexibility to ensure that the information is accessible and understandable,⁴⁶⁸ we do not think that such flexibility is needed—we specifically require the information to be contained within an interactive map and posted on transmission providers' websites for this purpose. Contrary to comments from NV Energy,⁴⁶⁹ we find that the interactive map is necessary to ensure accessibility and understandability. Absent the map, potential interconnection customers would need to separately map injection points of interconnection to specific locations.

160. In response to comments from PJM and NV Energy requesting flexibility for transmission providers, in lieu of the heatmap, to post congestion information and a link to OASIS with interchange limits and schedules, we decline to grant such flexibility. We find that there are meaningful differences between the results of planning studies, such as those used in the interconnection process, and operational data, like congestion and interchange schedules. Interconnection studies are generally conducted at a specific high-stress point in time for injection at a specific point of interconnection to determine flows across the whole transmission system, while operational data are simply the accumulation of real-time and/or day-ahead results. Thus, posting such operational data would only introduce timing differences and could not substitute for the deliverability analyses conducted in the interconnection processes.

161. In response to NYTOs, we clarify that the information displayed in the heatmap will be illustrative, non-binding, and subject to change.⁴⁷⁰ We agree with Tri-State's statement that transmission providers must also caveat that the results do not account for affected system impacts. As we have

acknowledged, one primary driver of the available interconnection capacity is the composition of the interconnection customer's cluster, and the heatmap cannot reflect those additional interconnection requests prior to the end of the customer request window.

162. In response to requests to clarify the funding mechanism associated with the heatmap requirement,⁴⁷¹ we clarify that transmission providers, not interconnection customers, are responsible for paying for costs associated with posting the relevant heatmaps required in *pro forma* LGIP section 6.1. However, we note that, to the extent such costs are properly recoverable in transmission rates consistent with existing Commission accounting and ratemaking policy, such rate treatment is appropriate, and this final rule does not preclude such treatment. We find that this reform will improve overall interconnection queue efficiency to the benefit of transmission customers, consistent with Commission policy.⁴⁷²

163. In response to Dominion, which requests clarification in the RTO/ISO context,⁴⁷³ we clarify that within an RTO/ISO, the heatmap requirement applies to the RTO/ISO, rather than to an individual transmission owner in an RTO/ISO. Thus, transmission owners in RTOs/ISOs are not required to separately post their own visual representations and results.

164. Finally, in response to concerns from WAPA about Federal power marketing agencies having defined budgets and appropriations,⁴⁷⁴ we note that transmission providers may explain specific circumstances on compliance and justify why any deviations are either "consistent with or superior to" the *pro forma* LGIP or merit an independent entity variation in the context of RTOs/ISOs.

2. Cluster Study Process

a. Need for Reform and Interconnection Study Procedures

i. NOPR Proposal

165. To remedy what may now be an unjust and unreasonable interconnection process, the Commission proposed to eliminate the serial first-come, first-served study process in the *pro forma* LGIP and instead require transmission providers to use a first-ready, first-served cluster

study process.⁴⁷⁵ The Commission explained that under a first-ready, first-served cluster study process, transmission providers would perform larger interconnection studies encompassing numerous proposed generating facilities, rather than separate studies for each individual interconnection request. Under the NOPR proposal, transmission providers would perform a single cluster study and cluster restudy each year, the particulars of which are further discussed below.

ii. Comments

166. Many commenters support the elimination of the serial study process and the use of the proposed cluster study process.⁴⁷⁶ Several commenters assert that the proposed cluster study process will increase efficiency in the interconnection process by diminishing delays and backlogs in processing

⁴⁷⁵ NOPR, 179 FERC ¶ 61,194 at P 64.

⁴⁷⁶ ACE–NY Initial Comments at 2; ACORE Initial Comments at 4; AEE Initial Comments at 10; AEE Reply Comments at 8; AEP Reply Comments at 3–4; AES Initial Comments at 9; Amazon Initial Comments at 2–3; Ameren Initial Comments at 6; APPA–LPPC Initial Comments at 14; Apple Initial Comments at 1; APS Initial Comments at 6; Avangrid Initial Comments at 10, 11; Avangrid Reply Comments at 4; Bonneville Initial Comments at 3; CAISO Initial Comments at 8; Clean Energy Associations Initial Comments at 19; Clean Energy Buyers Initial Comments at 8; Clean Energy States Initial Comments at 5; Colorado Commission Initial Comments at 8; Cypress Creek Initial Comments at 12; Dominion Initial Comments at 14; Duke Southeast Utilities Initial Comments at 1; Environmental Defense Fund Reply Comments at 6; EEI Initial Comments at 2, 5; EEI Reply Comments at 4–5; El Paso Electric Initial Comments at 4; NERC Initial Comments at 26; Enel Initial Comments at 11; EPSA Initial Comments at 5–6; Evergreen Action Initial Comments at 3; Eversource Initial Comments at 12; Fervo Energy Initial Comments at 3; Fervo Energy Reply Comments at 3; Idaho Power Initial Comments at 1, 4; Illinois Commission Initial Comments at 7; Indicated PJM TOs Initial Comments at 10; Iowa Commission Initial Comments at 3; ISO–NE Initial Comments at 19; MISO Initial Comments at 28; NARUC Initial Comments at 6; National Grid Initial Comments at 3–4; Navajo Utility Initial Comments at 12; NESCOE Initial Comments at 9; NextEra Initial Comments at 13; Northwest and Intermountain Initial Comments at 2; NV Energy Initial Comments at 4; NY Commission and NYSERDA Initial Comments at 5; NYISO Initial Comments at 10–11; NYTOs Initial Comments at 7; Ohio Commission Consumer Advocate Initial Comments at 7; Omaha Public Power Initial Comments at 4; OMS Initial Comments at 7; OPSI Initial Comments at 3–4; Ørsted Initial Comments at 7; OSPA Reply Comments at 15; Pacific Northwest Utilities Initial Comments at 1; Pennsylvania Commission Initial Comments at 5–6; Pine Gate Initial Comments at 14; PJM Initial Comments at 16; Public Interest Organizations Initial Comments at 25; Puget Sound Initial Comments at 4, 5; R Street Initial Comments at 8; SDG&E Initial Comments at 2; SEIA Initial Comments at 7; SoCal Edison Initial Comments at 3; State Agencies Initial Comments at 2, 12; Tesla Initial Comments at 1; Tri-State Initial Comments at 3; U.S. Chamber of Commerce Initial Comments at 6; UMPA Initial Comments at 2; WAPA Initial Comments at 8; WIRES Initial Comments at 5.

⁴⁶⁶ Environmental Defense Fund Reply Comments at 3–4 (citing Central Hudson Gas & Electric Corp., Solar PV Hosting Capacity Map, <https://www.cenhud.com/en/my-energy/distributed-generation/solar-pv-hc-map/>).

⁴⁶⁷ PPL Initial Comments at 9.

⁴⁶⁸ NY Commission and NYSERDA Initial Comments at 7.

⁴⁶⁹ NV Energy Initial Comments at 10.

⁴⁷⁰ NYTOs Initial Comments at 9.

⁴⁷¹ National Grid Initial Comments at 8; PacifiCorp Initial Comments at 14; Tri-State Initial Comments at 7–8.

⁴⁷² Order No. 845, 163 FERC ¶ 61,043 at P 37.

⁴⁷³ Dominion Initial Comments at 14.

⁴⁷⁴ WAPA Initial Comments at 7–8.

interconnection queues.⁴⁷⁷ Several commenters also believe that the proposed cluster study process will result in fewer interconnection request withdrawals⁴⁷⁸ and will discourage speculative interconnection requests.⁴⁷⁹ Some commenters assert that, from the interconnection customer's perspective, the proposed cluster study process provides more certainty on timing and cost.⁴⁸⁰ Several commenters state that they have already implemented some of the proposed cluster study process reforms.⁴⁸¹

167. Dominion states that another benefit of moving to the proposed cluster study process is that, if a proposed generating facility is not ready for its cluster study, it can join the next cluster rather than losing its interconnection queue position as occurs in a serial study process.⁴⁸² Dominion asserts that, as a result, the proposed cluster study process removes the incentive for an interconnection customer to "reserve a spot in line" for a proposed generating facility is not yet viable. Ohio Commission Consumer Advocate believes that larger interconnection studies encompassing numerous proposed generating facilities would be especially beneficial for interconnection customers with multiple proposed generating facilities in close geographical proximity.⁴⁸³ Avangrid believes that applying this concept to more regions will lead to a more guided and proactive build-out of new generation and required transmission upgrades.⁴⁸⁴

168. Several commenters argue that the proposed cluster study process will

foster renewable resource development and aid in meeting national and/or state clean energy and carbon emissions reduction goals.⁴⁸⁵ Puget Sound states that over the past year, it has seen unprecedented numbers of interconnection requests in response to the resource solicitation process and a demand for new renewable energy sources.⁴⁸⁶ Puget Sound adds that it has experienced a backlogged interconnection queue, entry of speculative interconnection requests, and uncertainty for interconnection customers relying on higher-queued interconnection requests to complete the interconnection process for their proposed generating facilities to be feasible. Clean Energy States assert that, because wind and solar projects can be relatively small, clustering should help smaller projects share the cost of interconnection studies and upgrades, thereby providing them a viable path through the interconnection process.⁴⁸⁷

169. Some commenters support the use of the proposed cluster study process, so long as it is coupled with additional requirements, some of which the Commission proposed in the NOPR.⁴⁸⁸ AEE recommends that the Commission consider further reforms to harmonize study assumptions and more closely link generator interconnection and long-term regional transmission planning processes.⁴⁸⁹ R Street states that the Commission should consider an interconnection study approach that uses transparent, realistic study assumptions.⁴⁹⁰ Clean Energy Associations argue that certain conservative assumptions—such as NERC standard TPL-001's extreme contingency cases—can lead to the identification of unreasonably large and costly upgrades.⁴⁹¹ Clean Energy Associations also assert that the Commission should make clear in its final rule whether moving from a serial study process to a cluster study process should or should not be accompanied by any change in the interconnection

standards and assumptions used in those studies.⁴⁹² Ameren generally supports the proposal to move to a first-ready, first-served cluster study process, but argues that this move without other reforms is unlikely to clear the interconnection queue backlog.⁴⁹³ NERC states that its support for cluster studies is predicated on parallel enhancements for model validation with actual installed equipment and a true-up prior to interconnection.⁴⁹⁴

170. Other commenters express some concern with the move to the proposed cluster study process. For example, Enel states that cluster studies increase interdependence between interconnection requests, with a greater likelihood that multiple interconnection customers are responsible for a single network upgrade, which creates a paradigm where one interconnection customer's actions, such as withdrawing from the interconnection queue, can have drastic impacts on many other interconnection customers.⁴⁹⁵ Enel also asserts that, while the proposed cluster study process has some benefits, recent cluster studies are resulting in significant regional transmission constraints with very high associated network upgrade costs and long construction schedules. Enel contends that the proposed cluster study process can still reduce interdependency and succeed if there are much smaller, more local, regional groupings of interconnection requests in cluster studies and lower minimum impact thresholds for determining network upgrades. Enel says the Commission should adopt these two practices if it adopts the proposed cluster study process.

171. Some commenters note that, where the demand for generator interconnection significantly exceeds the available supply of interconnection access, the NOPR's proposed cluster study process and interconnection queue management reforms alone may be insufficient to address the backlog of interconnection requests.⁴⁹⁶ Other commenters assert that under these circumstances, some form of interconnection request prioritization may be needed to effectively allocate scarce interconnection access to the lowest-cost or highest-value proposed generating facilities.⁴⁹⁷

⁴⁷⁷ AEP Initial Comments at 16; Amazon Initial Comments at 2–3; Apple Initial Comments at 1; Consumers Energy Initial Comments at 4; Environmental Defense Fund Initial Comments at 5; EEI Initial Comments at 2, 5; ELCON Initial Comments at 2, 8; EPSA Initial Comments at 10; NV Energy Initial Comments at 4; Ohio Commission Consumer Advocate Initial Comments at 8; Pennsylvania Commission Initial Comments at 5–6; Pine Gate Initial Comments at 14; Public Interest Organizations Initial Comments at 25; SEIA Initial Comments at 7; WIRES Initial Comments at 6.

⁴⁷⁸ AEP Initial Comments at 16; Dominion Initial Comments at 14; ELCON Initial Comments at 9; EPSA Initial Comments at 7; Ohio Commission Consumer Advocate Initial Comments at 8; SEIA Initial Comments at 7.

⁴⁷⁹ Clean Energy States Initial Comments at 5; Colorado Commission Initial Comments at 8; ELCON Initial Comments at 9; EPSA Initial Comments at 6; SoCal Edison Initial Comments at 3–4.

⁴⁸⁰ Avangrid Initial Comments at 11; Dominion Initial Comments at 14.

⁴⁸¹ APS Initial Comments at 6; Duke Southeast Utilities Initial Comments at 2; MISO Initial Comments at 28; PacifiCorp Initial Comments at 16; SPP Initial Comments at 5.

⁴⁸² Dominion Initial Comments at 15.

⁴⁸³ Ohio Commission Consumer Advocate Initial Comments at 8.

⁴⁸⁴ Avangrid Initial Comments at 11.

⁴⁸⁵ Apple Initial Comments at 1; Navajo Utility Initial Comments at 12; SoCal Edison Initial Comments at 4; State Agencies Initial Comments at 12.

⁴⁸⁶ Puget Sound Initial Comments at 4–5.

⁴⁸⁷ Clean Energy States Initial Comments at 5.

⁴⁸⁸ AEP Initial Comments at 6, 16; Ameren Initial Comments at 6; Cypress Creek Initial Comments at 12; CREA and NewSun Initial Comments at 10, attach. A; CREA and NewSun Reply Comments at 8; Enel Initial Comments at 11; Eversource Initial Comments at 13; Invenergy Initial Comments at ii; NRECA Initial Comments at 8, 18; PPL Initial Comments at 10; SoCal Edison Initial Comments at 4.

⁴⁸⁹ AEE Initial Comments at 10.

⁴⁹⁰ R Street Reply Comments at 2.

⁴⁹¹ Clean Energy Associations Initial Comments at 28.

⁴⁹² *Id.* at 21.

⁴⁹³ Ameren Initial Comments at 6.

⁴⁹⁴ NERC Initial Comments at 26.

⁴⁹⁵ Enel Initial Comments at 12–13.

⁴⁹⁶ AEE Reply Comments at 8; Cypress Creek Initial Comments at 12.

⁴⁹⁷ NARUC Initial Comments at 11–12; Western Regulators Initial Comments at 1.

172. Several commenters state that, while they support the use of the proposed cluster study process, the Commission should allow variation among transmission providers in the makeup of the study process.⁴⁹⁸ Some commenters argue that regional variations should be permitted, especially where transmission providers have already implemented a first-ready, first-served cluster study process.⁴⁹⁹ Environmental Defense Fund, on the other hand, argues that the Commission should provide limited flexibility for transmission providers to demonstrate in their compliance filing that a preexisting cluster study process is substantially similar to the process established in the Commission's final rule.⁵⁰⁰

173. Pacific Northwest Utilities and CREA and NewSun urge the Commission to allow flexibility for transmission providers to design the cluster study process to implement either a single-phase or two-phase cluster study process.⁵⁰¹ Pacific Northwest Utilities contend that requiring full commercial readiness in a single-phase study process, as proposed in the NOPR, significantly restricts an interconnection customer's ability to enter the interconnection queue.⁵⁰² Pacific Northwest Utilities argue that a two-phase approach provides greater accessibility to some interconnection customers by not requiring commercial readiness for entry into the first phase. According to Pacific Northwest Utilities, this is because all interconnection customers who have attained site control will have information about the network upgrades needed to meet the interconnection requirements of the cluster and the expected cost responsibility for each interconnection customer in the cluster. Pacific Northwest Utilities aver that this

information reduces the potential for interconnection customers to withdraw from phase two and, therefore, should reduce the need for additional restudies that might slow or stall the interconnection process.

174. Some commenters argue that it may not be appropriate to mandate the proposed cluster study process for every transmission provider as cluster studies can be complex, expensive, and not the most efficient or necessary approach for all proposed generating facilities or circumstances.⁵⁰³ Some commenters generally support the use of cluster studies if transmission providers retain discretion to use the existing serial study process.⁵⁰⁴ Vermont Electric and Vermont Transco notes that not all interconnection requests need to be studied in a cluster format, and that this has frequently been the situation in New England, where interconnection queue bottlenecks have historically been locational and driven by state clean energy procurement efforts.⁵⁰⁵ ISO-NE requests that the Commission consider a more targeted approach for clusters triggered by geographic or electric proximity among interconnection requests, rather than a blanket clustering process for all interconnection requests.⁵⁰⁶ Instead of mandating a clustering in all regions, ISO-NE contends that the Commission consider the expanded use of clustering in areas with larger concentrations of proposed generating facilities, while allowing use of serial studies for customers seeking to interconnect in areas with low activity, where serial studies could proceed relatively quickly.

175. National Grid asks for clarification as to whether the proposed cluster study process encompasses energy or capacity interconnection service requests, or both.⁵⁰⁷

176. Some commenters contend that the Commission should encourage relevant state entities to consider the efficient coordination of their state-jurisdictional interconnection process with Commission-jurisdictional interconnection processes.⁵⁰⁸ Avangrid argues that sizable distributed energy resources should be aggregated and included in the broader cluster study of

large and small Commission-jurisdictional generating facilities. Pine Gate suggests the Commission require transmission providers, on compliance, to "document how they will ensure that any serial processes for state-jurisdictional interconnection agreements will interact with the required cluster study process" and explain how the interconnection queue position of qualifying facilities (QFs) will not be prejudiced by the transition to a cluster study process.⁵⁰⁹

iii. Commission Determination

177. We adopt the NOPR proposal to revise the *pro forma* LGIP and *pro forma* LGIA to make cluster studies the required interconnection study method. We find that the move from the serial study process in the *pro forma* LGIP to the proposed cluster study process, alongside the other reforms adopted in the final rule, will remedy the unjust and unreasonable rates discussed in section II of this final rule. Specifically, we believe that this reform will help remedy the problems of the existing interconnection process for large generating facilities in several ways. First, the cluster study process will increase efficiency because transmission providers can perform larger interconnection studies encompassing many proposed generating facilities, rather than separate studies for each individual interconnection customer.⁵¹⁰ The cluster study process will provide greater certainty to interconnection customers, regarding both the timing of studies and the magnitude of network upgrade costs. Coupled with the increased financial commitments and requirements to enter the interconnection queue, such as a demonstration of site control, as discussed further below, the cluster study process will also disincentivize interconnection customers from submitting interconnection requests for speculative generating facilities and ensure that ready, more viable proposed

⁴⁹⁸ AEP Initial Comments at 16; APPA-LPPC Initial Comments at 14; Avangrid Initial Comments at 10; Dominion Initial Comments at 14; EEI Initial Comments at 5; Eversource Initial Comments at 13; NARUC Initial Comments at 6–7; NEPOOL Initial Comments at 14; NRECA Initial Comments at 18–19; Omaha Public Power Initial Comments at 4; OMS Initial Comments at 8.

⁴⁹⁹ AEP Initial Comments at 16; APPA-LPPC Initial Comments at 14; Idaho Power Initial Comments at 4; Indicated PJM TOs Initial Comments at 10–11, 16; MISO Initial Comments at 31–32; NextEra Reply Comments at 7; NYISO Initial Comments at 10–11; Pacific Northwest Utilities Initial Comments at 2; SoCal Edison Initial Comments at 4; U.S. Chamber of Commerce Initial Comments at 6–7; WIRES Initial Comments at 6–7.

⁵⁰⁰ Environmental Defense Fund Reply Comments at 7.

⁵⁰¹ CREA and NewSun Reply Comments at 12–13; Pacific Northwest Utilities Initial Comments at 6, 8–9.

⁵⁰² Pacific Northwest Utilities Initial Comments at 7–8.

⁵⁰³ SPP Initial Comments at 5.

⁵⁰⁴ AECI Initial Comments at 5; AEP Reply Comments at 4; Avangrid Reply Comments at 4–5; CREA and NewSun Initial Comments at 44; ELCON Initial Comments at 9; NextEra Initial Comments at 15; Southern Initial Comments at 6; Vermont Electric and Vermont Transco Initial Comments at 2–3.

⁵⁰⁵ Vermont Electric and Vermont Transco Initial Comments at 2.

⁵⁰⁶ ISO-NE Initial Comments at 24.

⁵⁰⁷ National Grid Initial Comments at 16.

⁵⁰⁸ Avangrid Initial Comments at 12.

⁵⁰⁹ Pine Gate Initial Comments at 15.

⁵¹⁰ NOPR, 179 FERC ¶ 61,194 at P64; May Joint Task Force Tr. 46:15–19 (Clifford Rechtschaffen) (stating that CAISO's cluster process has been helpful and important for improving interconnection queue processing and that clustering "is a best practice and should be promoted"); EEI Initial Comments at 2,5; ELCON Initial Comments at 2,8; EPSA Initial Comments at 6; Idaho Power Initial Comments at 4; Indicated PJM TOs Initial Comments at 10; Pennsylvania Commission Initial Comments at 5–6; *see also* May Joint Task Force Tr. 43:25–44:4 (Riley Allen) ("Clustering helps the system to the benefit ultimately of ratepayers. New England has been relying on (explaining that clustering has two goals: minimizing the study time and minimizing the first mover disadvantage by sharing costs among those resources that need the same upgrades).

generating facilities can proceed through the study process.⁵¹¹ We also expect that the cluster study process will result in fewer withdrawals because conducting a single cluster study and cluster restudy will minimize delays that arise from proposed generating facility interdependencies under the existing serial study process, in which lower-queued interconnection customers can strategically and monetarily benefit from network upgrades and associated costs borne earlier in the interconnection process by higher-queued interconnection customers. We further expect that the cluster study process will minimize the risk of cascading restudies when an interconnection customer withdraws.⁵¹²

178. We are not persuaded by Enel's request that the Commission adopt smaller, more local regional groupings of proposed generating facilities in interconnection studies and lower minimum impact thresholds for determining upgrades.⁵¹³ We find the record insufficient to support these additional requirements. We also decline requests to allow transmission providers to either continue to use a serial study process or to create a parallel serial study process⁵¹⁴ because, as discussed further below, we find that establishing in the *pro forma* LGIP a separate interconnection process outside the cluster study process could detract from transmission providers' efforts to efficiently process cluster studies, and would be insufficient to ensure that interconnection customers are able to interconnect to the transmission system in a reliable, efficient, transparent, and timely manner.

179. In response to requests to allow variation in how clusters are formed,⁵¹⁵ we emphasize that the reforms to the *pro forma* LGIP adopted in this final rule do not prescribe how transmission providers should form clusters.

180. In response to National Grid,⁵¹⁶ we decline to clarify whether the proposed cluster study process encompasses energy or capacity interconnection service requests. "Energy interconnection requests" and "capacity interconnection requests" are not defined terms in the *pro forma* LGIP, and we decline to define them here. We do not believe that such detail is needed for transmission providers to implement the reforms adopted herein.

181. In response to Avangrid,⁵¹⁷ we encourage relevant state entities to consider the efficient coordination of their state-jurisdictional interconnection processes with Commission-jurisdictional interconnection processes.

182. In response to requests to create some form of generating facility prioritization,⁵¹⁸ we are neither persuaded that such prioritization is needed, nor do we have an adequate record to dictate how generating facility prioritization should be implemented in a just, reasonable, and not unduly discriminatory or preferential manner.

183. Finally, we decline to adopt the following proposals advocated by some commenters because they are outside the scope of this proceeding: (1) AEE's request that the Commission consider further reforms to more closely link generator interconnection and long-term regional transmission planning process;⁵¹⁹ (2) Cypress Creek's request to require transmission providers to allow interconnection customers to seek energy-only injection as a default and provide a subsequent process (needed to address capacity-market constructs) by which an interconnection customer can add firm rights;⁵²⁰ (3) Pine Gate's suggestion for the Commission to require transmission providers to document on compliance how they will ensure that any serial study processes for state-jurisdictional interconnection agreements will interact with the required cluster study process and explain how the interconnection queue position of QFs will not be prejudiced by the transition to a cluster study process;⁵²¹ and (4) AEE's and Clean Energy Associations' request that the Commission also harmonize study standards and assumptions.⁵²² We find that these proposals are outside the scope of this proceeding as the

Commission did not propose specific reforms on these issues, and we find an inadequate record to fully consider or adopt these requested changes.

b. Defined Terms in the Pro Forma LGIP and Pro Forma LGIA

i. NOPR Proposal

184. In the NOPR, the Commission proposed to add several new defined terms (such as cluster, cluster study process, and cluster request window) and to revise several defined terms (such as stand alone network upgrade and material modification) in section 1 of the *pro forma* LGIP and article 1 of the *pro forma* LGIA.⁵²³

ii. Comments

185. Starting with the proposed definition of stand alone network upgrade, a few commenters support the Commission's proposal.⁵²⁴ Tri-State suggests adding to the definition of stand alone network upgrade that a transmission provider's interconnection facilities may be shared by more than one generating facility in a given cluster study, including a co-located resource.⁵²⁵

186. Other commenters oppose the proposed revisions to the definition of stand alone network upgrade. Clean Energy Associations argue that the proposal to modify the definition of stand alone network upgrade to restrict it to those needed only for a single interconnection customer is problematic and counterproductive.⁵²⁶ Clean Energy Associations contend that allowing interconnection customers the right to self-build interconnection facilities and stand alone network upgrades since Order No. 845 has served as a welcome relief valve to transmission providers' lengthy construction timelines, giving customers increased control of both the time and cost for building these upgrades. As an alternative, Clean Energy Associations suggest an approach similar to ISO-NE's for network upgrades that are needed for multiple interconnections where an independently developed elective network upgrade, if selected by all of the interconnection customers in the cluster that require the network upgrade, can take the place of the incumbent-built cluster enabling network upgrade.

187. Pine Gate states that in its experience, after Order No. 845,

⁵¹¹ ELCON Initial Comments at 9; EPSA Initial Comments at 6; NYTOs Initial Comments at 7; Ohio Commission Consumer Advocate Initial Comments at 8; SoCal Edison Initial Comments at 4; State Agencies Initial Comments at 12.

⁵¹² Cypress Creek Initial Comments at 12; Dominion Initial Comments at 14; SEIA Initial Comments at 7.

⁵¹³ Enel Initial Comments at 13.

⁵¹⁴ AECI Initial Comments at 5; AEP Reply Comments at 4; Avangrid Reply Comments at 4–5; CREA and NewSun Initial Comments at 44; ELCON Initial Comments at 9; SPP Initial Comments at 5; Vermont Electric and Vermont Transco Initial Comments at 2–3.

⁵¹⁵ Clean Energy States Initial Comments at 10; CREA and NewSun Reply Comments at 12–13; Pacific Northwest Utilities Initial Comments at 6–9; R Street Initial Comments at 11.

⁵¹⁶ National Grid Initial Comments at 16.

⁵¹⁷ Avangrid Initial Comments at 12.

⁵¹⁸ AEE Reply Comments at 8; Cypress Creek Initial Comments at 12; NARUC Initial Comments at 11–12; Western Regulators Initial Comments at 1.

⁵¹⁹ AEE Initial Comments at 10.

⁵²⁰ Cypress Creek Initial Comments at 8–9.

⁵²¹ Pine Gate Initial Comments at 15.

⁵²² AEE Initial Comments at 10; Clean Energy Associations Initial Comments at 21, 28.

⁵²³ NOPR, 179 FERC ¶ 61,194 at P 65.

⁵²⁴ Ameren Initial Comments at 9; MISO Initial Comments at 32.

⁵²⁵ Tri-State Initial Comments at 25.

⁵²⁶ Clean Energy Associations Initial Comments at 22–23.

transmission providers have taken a very narrow view of the facilities that constitute stand alone network upgrades, and thus the potential for interconnection customers to exercise the option to build has not been fully realized.⁵²⁷ Pine Gate asserts that the proposed change would further restrict the opportunity for interconnection customers to exercise the option to build, exacerbate construction delays, and result in a lack of competition to construct stand alone network upgrades, ultimately harming consumers. Pine Gate therefore recommends that the Commission not modify the definition of stand alone network upgrade as proposed and instead grant the interconnection customer with the largest projected impact on a potential stand alone network upgrade facility the ability to elect the option to build with priority falling to each interconnection customer based on the next largest impact on the stand alone network upgrades.

188. Enel argues that the Commission should not adopt the proposed substantive revisions to the definition of stand alone network upgrades and should instead expand the definition of stand alone network upgrades to include upgrades to an existing transmission facility which involves a transmission line or substation being entirely rebuilt.⁵²⁸ Enel offers suggestions for implementing a third-party option that would give interconnection customers more control over the cost and schedule of larger network upgrades, resolving a frequent barrier to bringing needed generating facilities online. To that end, Enel states that *pro forma* LGIA article 5.1 could be modified to specify that the option to build is only eligible for stand alone network upgrades funded by a single interconnection customer, while the proposed third-party option could be used for all stand alone network upgrades, including line and substation rebuilds.

189. Moving to the proposed definition of material modification, some commenters support the Commission's proposal.⁵²⁹ Ørsted urges the Commission to ensure that under the newly proposed definition of material modification, any changes to a proposed generating facility that occur on the generating facility side of the point of interconnection that do not

result in changes to the electrical output at the point of interconnection or the electrical characteristics of the generating facility's interconnection: (1) will not be deemed to be a material modification; and (2) will not result in the termination of the interconnection customer's queue position.⁵³⁰

190. Ameren suggests that the Commission consider clarifying the proposed definition of material modification, so that cost and timing are factors to be considered in addition to when the transmission provider determines changes to the point of interconnection are otherwise material (e.g., from an electrical standpoint).⁵³¹ Ameren states that the Commission may want to consider whether the change should only be triggered by a change to the point of interconnection or whether a change to the inverters or other pieces of equipment in the interconnecting generating facility, which could require other upgrades, should also result in the determination of a material modification.

191. EPSA asks the Commission to be clearer in determining a standard definition of a material modification.⁵³² EPSA argues that, at minimum, the Commission should direct each RTO/ISO or each NERC region to establish clear criteria for the evaluation of material modifications.

iii. Commission Determination

192. We adopt the proposed revisions to section 1 of the *pro forma* LGIP and article 1 of the *pro forma* LGIA to revise and add several defined terms. Specifically, we adopt the proposed revisions to the definition of stand alone network upgrade to clarify that, for a network upgrade to be eligible for treatment as a stand alone network upgrade, the network upgrade must be required for only one interconnection customer and must meet the other existing requirements in the definition of stand alone network upgrade. We address further modifications to the definition of stand alone network upgrade below where discussing network upgrade cost allocation (section III.A.4.c of this final rule). We also adopt the proposed revisions to the definition of material modification, which account for the equal interconnection queue position of proposed generating facilities that are part of the same cluster. We also modify the NOPR proposal to define interconnection facilities study report.

193. With respect to the definition of stand alone network upgrade, in response to Clean Energy Associations' concerns, we note that we do not remove the right to self-build interconnection facilities and stand alone network upgrades established in Order No. 845. Rather, we are explicitly maintaining the status quo, which is to say that, under the existing *pro forma* LGIP, there is no potential for a stand alone network upgrade to be shared by more than one interconnection customer. With the revision proposed in the NOPR and adopted here, we are ensuring that within the structure of a cluster study process adopted in this final rule, stand alone network upgrades continue to be defined as only those required for a single interconnection customer, and therefore the option to build is only available for a single interconnection customer. Were we to not adopt this revision, multiple interconnection customers could potentially attempt to construct the same stand alone network upgrades, leading to confusion and potentially lengthy negotiations and/or disputes regarding which interconnection customer had the right to construct the stand alone network upgrade. Additionally, with regard to Clean Energy Associations' request that the Commission consider an approach similar to ISO-NE's for certain upgrades that are needed for multiple interconnections, we decline to adopt this approach because it is outside the scope of this proceeding. We are not proposing in this proceeding to modify the *pro forma* LGIP to address the cost responsibility and division of work between interconnection customers that may share cost allocation for stand alone network upgrades.

194. Similarly, Tri-State, Pine Gate, and Enel argue that the Commission should expand the definition of stand alone network upgrade, thereby expanding the right of interconnection customers to build certain network upgrades. These requests are outside the scope of this proceeding, which is not proposing to modify the scope of interconnection customers' option to build certain stand alone network upgrades but rather is only revising definitions insofar as is necessary to implement reforms adopted elsewhere in this final rule. For the same reason, we decline to expand the definition of material modification, as Ørsted, Ameren, and EPSA request.⁵³³

⁵²⁷ Pine Gate Initial Comments at 63–64 (citing Comments of Pine Gate, Docket No. RM21–17–000, at 9–10 (filed Oct. 12, 2021); Order No. 2003, 104 FERC ¶ 61,103 at PP 85, 353).

⁵²⁸ Enel Initial Comments at 55–56.

⁵²⁹ Ameren Initial Comments at 9; MISO Initial Comments at 32.

⁵³⁰ Ørsted Initial Comments at 8.

⁵³¹ Ameren Initial Comments at 9.

⁵³² EPSA Initial Comments at 13.

⁵³³ See Ameren Initial Comments at 9; EPSA Initial Comments at 13; Ørsted Initial Comments at 8.

c. Definitive Point of Interconnection

i. NOPR Proposal

195. In the NOPR, the Commission proposed to add new section 3.1.2 to the *pro forma* LGIP and therein to require interconnection customers to select a definitive point of interconnection to be studied no later than the execution of the cluster study agreement. The Commission also proposed that, upon mutual agreement, the transmission provider may make reasonable changes to the requested point of interconnection to facilitate efficient generator interconnection of clustered interconnection requests at common points of interconnection.⁵³⁴

ii. Comments

196. MISO supports the Commission requiring the selection of a definitive point of interconnection when executing the cluster study agreement; however, MISO encourages the Commission to require the selection of a definitive point of interconnection even earlier, as part of the interconnection request.⁵³⁵ MISO notes that requiring an earlier selection of the definitive point of interconnection will assist in interconnection queue processing, as a transmission provider would not be able to begin modeling work if the interconnection customer is permitted to wait until a later point in time to select its definitive point of interconnection. MISO further argues that the definitive point of interconnection (even if subject to change) should be selected prior to any scoping meeting. MISO also supports the proposed language that limits the ability of the interconnection customer to change its point of interconnection after the submission of interconnection request.

197. Other commenters do not support the Commission's proposal to require a definitive point of interconnection when executing the cluster study agreement.⁵³⁶ ACE–NY supports making the demonstration of a feasible point of interconnection a requirement for a generating facility to move into the facilities study phase of the generator interconnection process.⁵³⁷

198. Pine Gate and CREA and NewSun assert that the Commission should modify its proposal to permit interconnection customers to request

alternative points of interconnection.⁵³⁸ Pine Gate argues that the Commission should permit interconnection customers to request a study of a primary and secondary point of interconnection within one or two electrical buses, then select a point of interconnection restudy after receiving initial cluster study results.⁵³⁹ Similarly, CREA and NewSun assert that the Commission should permit alternative points of interconnection, and collective points of interconnection for proposed generating facilities in a cluster (e.g., those that could connect to a single substation), to be proposed and studied, at least through the system impact study in order to obtain more complete cost information.⁵⁴⁰

199. Enel suggests that, in the second paragraph of proposed section 3.1.2 of the *pro forma* LGIP, the Commission should change the word “make” to “propose” in the following quoted language: “For purposes of clustering Interconnection Requests, Transmission Provider may make reasonable changes to the requested Point of Interconnection.”⁵⁴¹ Enel explains that this would clarify that any such changes can only be made with the consent of the interconnection customer, as specified in the proposed new final sentence to that paragraph.

iii. Commission Determination

200. We adopt the proposed section 3.1.2 of the *pro forma* LGIP insofar as it requires an interconnection customer to select a definitive point of interconnection to be studied when executing the cluster study agreement, with one modification discussed below.

201. Requiring interconnection customers to select a definitive point of interconnection when executing the cluster study agreement allows the interconnection customer to submit its interconnection request with a proposed point of interconnection, participate in the scoping meeting during the customer engagement window, and receive feedback on its proposed point of interconnection. We believe that this strikes the right balance between allowing for flexibility and potential adjustments to the point of interconnection, based on discussion with the transmission provider and the transmission provider's detailed knowledge of its transmission system, and providing transmission providers with the information necessary to

conduct the cluster study, thus reducing the potential for restudies that would be required if interconnection customers could change their points of interconnection later in the process.

202. We decline to: (1) require that the definitive point of interconnection be selected earlier (e.g., as part of the interconnection request);⁵⁴² (2) only require that the definitive point of interconnection be selected later (e.g., at the facilities study phase);⁵⁴³ or (3) permit interconnection customers to submit multiple alternative points of interconnection for study in a single interconnection request.⁵⁴⁴ We believe that requiring the selection of a definitive point of interconnection earlier in the cluster study process, as suggested by MISO, would deprive interconnection customers of information that could aid in their selection. Similarly, we believe that requiring the selection of a definitive point of interconnection after the cluster study, as suggested by ACE–NY, or allowing multiple points of interconnection to be studied before the interconnection customer is required to select the definitive point of interconnection, as suggested by Pine Gate and CREA and NewSun, fails to take into account the fact that, if an interconnection customer changes the definitive point of interconnection after the cluster study, it will likely impact the study results of the other interconnection customers in the cluster and could lead to restudies and delays. We do not believe that the alternatives suggested by commenters would remedy the unjust and unreasonable status quo described in section II of this final rule.

203. Finally, we agree with Enel's suggestion to change the word “make” to “propose” in *pro forma* LGIP section 3.1.2. We modify that section to state: “For purposes of clustering Interconnection Requests, Transmission Provider may propose reasonable changes to the requested Point of Interconnection.”⁵⁴⁵ We agree that this clarifies that any such changes can only be made with the consent of the interconnection customer.

d. Cluster Request Window and Customer Engagement Window

i. NOPR Proposal

204. In the NOPR, the Commission proposed to add new section 3.4.1 (Cluster Request Window) to the *pro forma* LGIP to require interconnection

⁵³⁴ NOPR, 179 FERC ¶ 61,194 at P 66.

⁵³⁵ MISO Initial Comments at 33–34.

⁵³⁶ ACE–NY Initial Comments at 3; CREA and NewSun Initial Comments at 47; Pine Gate Initial Comments at 15.

⁵³⁷ ACE–NY Initial Comments at 3–4.

⁵³⁸ CREA and NewSun Initial Comments at 47–48; Pine Gate Initial Comments at 15–16.

⁵³⁹ Pine Gate Initial Comments at 15–16.

⁵⁴⁰ CREA and NewSun Initial Comments at 47–48.

⁵⁴¹ Enel Initial Comments at 82.

⁵⁴² See MISO Initial Comments at 33.

⁵⁴³ See ACE–NY Initial Comments at 3–4.

⁵⁴⁴ See CREA and NewSun Initial Comments at 47–48; Pine Gate Initial Comments at 15–16.

⁵⁴⁵ Enel Initial Comments at 82.

customers to submit an interconnection request during the cluster request window—a 45-calendar day period with the start date to be determined by each transmission provider (with the annual start date for the transmission provider's cluster request window included in its LGIP).⁵⁴⁶ The transmission provider would consider all interconnection requests accepted during this period to have equal queue priority for purposes of the cluster study. The Commission also proposed to add in *pro forma* LGIP section 3.1.1 (Initial Study Deposit) a non-refundable application fee of \$5,000 to be submitted with the interconnection request. The Commission further proposed that interconnection customers must cure deficient interconnection requests within 10 business days after receipt of notice from the transmission provider, but no later than the close of the cluster request window.

205. The Commission also proposed to add new *pro forma* LGIP section 3.4.5 (Customer Engagement Window), which provides that, following the close of the cluster request window, the transmission provider begins a 30-calendar day customer engagement window.⁵⁴⁷ New *pro forma* LGIP section 3.4.5 also requires the transmission provider to post within the first 10 business days following the close of the cluster request window a list of interconnection requests for that cluster.

ii. Comments

206. Clean Energy Associations support the proposal to require interconnection customers to submit interconnection requests during the cluster request window.⁵⁴⁸ MISO supports the Commission requiring a definitive application deadline as part of the implementation of cluster studies, and equal interconnection queue priority for all interconnection requests submitted prior to that deadline, but does not see an intrinsic value in a defined application start time.⁵⁴⁹ MISO supports granting interconnection customers flexibility to submit an interconnection request earlier than the beginning of a cluster request window. Noting that, under proposed *pro forma* LGIP section 3.4.5, interconnection requests that are deemed valid during

the customer engagement window are placed into the cluster study, Southern proposes that if an interconnection request is not deemed valid, the interconnection request should be withdrawn from the interconnection queue.⁵⁵⁰

207. MISO expresses concern that the timelines listed in the customer engagement window for posting information are impractical.⁵⁵¹ MISO asserts that the Commission should not require a posting so near to the close of the cluster request window because the transmission provider must devote its resources to reviewing the interconnection requests for deficiencies.⁵⁵² MISO contends that this information would only be useful at this time to interconnection customers with speculative interconnection requests that may be trying to determine if their proposed generating facility is economically viable and that may be trying to identify a point of interconnection change to increase the viability of their interconnection requests.

208. MISO argues that the Commission should not require any informational posting pertaining to an interconnection request prior to the interconnection customer's finalization of the interconnection request because a definitive point of interconnection has not yet been selected.⁵⁵³ MISO highlights that the proposed *pro forma* LGIP section 3.4.5 requires the transmission provider's OASIS posting to include "(3) the station or transmission line where the interconnection will be made." ⁵⁵⁴ However, MISO notes that an interconnection customer is not required to select a definitive point of interconnection until the end of the customer engagement window. As such, MISO contends that the posting requirement is impossible if the transmission provider is required to post the point of interconnection. MISO argues that the Commission should not require any posting until a reasonable period after the interconnection customer is required to select its definitive point of interconnection and the information is complete, such as when the customer engagement window is completed and cluster studies are about to begin.

209. Regarding the makeup of the cluster, Clean Energy States assert that the cluster study process should allow for changes in the makeup of the cluster, and that the study process may identify ways to improve a cluster to provide better performance for the transmission system, such as by adding or subtracting certain interconnection requests from the cluster.⁵⁵⁵ Clean Energy States assert that a transmission provider should be able to modify the cluster in response to interconnection customer changes or study findings without threatening the interconnection customer's queue priority or paying penalties.

210. EPSA argues that the final rule should specify that transmission providers are required to work with interconnection customers during the customer engagement window and study agreement negotiation in a manner that is fair and equitable regarding the study models to be used, data verification, and stakeholder engagement—regardless of the planning or procurement method used by the prospective interconnection customer.⁵⁵⁶

211. Enel recommends that the Commission consolidate the interconnection request and cluster and facilities study agreements into a single study agreement to be submitted at the time of application.⁵⁵⁷ Enel also recommends that the Commission include language in the *pro forma* LGIP that provides that transmission providers will not post information about interconnection requests proceeding through or withdrawing from the interconnection queue until all interconnection requests submitted within a cluster request window successfully meet their milestone requirements to proceed, withdraw, or fail to cure their breach within the specific cure period.⁵⁵⁸

212. Regarding the length of the cluster request window, some commenters support the proposed 45-calendar day time frame for the cluster request window.⁵⁵⁹ Although it supports the 45-calendar day time frame, Eversource suggests the Commission add more structure to this element of its proposal by establishing rules that enable potential interconnection customers to be informed of when the request windows

⁵⁴⁶ NOPR, 179 FERC ¶ 61,194 at P 67.

⁵⁴⁷ *Id.*

⁵⁴⁸ Clean Energy Associations Initial Comments at 19.

⁵⁴⁹ MISO Initial Comments at 35 (noting that, under the MISO tariff, all interconnection requests received after the application deadline "shall be applied towards the following Definitive Planning Phase cycle") (citing MISO, FERC Electric Tariff, attach. X, section 3.3.1 (158.0.0)).

⁵⁵⁰ Southern Initial Comments at 37.

⁵⁵¹ MISO Initial Comments at 36.

⁵⁵² *Id.* (stating that a majority of its interconnection requests are submitted on the last day of the application window, or two days prior at most).

⁵⁵³ *Id.* at 36–37.

⁵⁵⁴ *Id.* at 37.

⁵⁵⁵ Clean Energy States Initial Comments at 8–9.

⁵⁵⁶ EPSA Initial Comments at 7.

⁵⁵⁷ Enel Initial Comments at 13.

⁵⁵⁸ *Id.* at 48.

⁵⁵⁹ Eversource Initial Comments at 13; Clean Energy Associations Initial Comments at 19.

will be open and how to prepare to apply.⁵⁶⁰

213. Other commenters argue that the proposed 45-calendar day time frame for the cluster request window is too short and should be increased to 60 calendar days.⁵⁶¹ ISO-NE states that, based on its experience implementing its forward capacity market process, each of the cluster study windows proposed in the NOPR should be extended to help ensure an efficient cluster study process.⁵⁶² Pine Gate also argues that a longer cluster request window would reduce the burden on transmission providers by providing more time to administer their deficiency notice processes.⁵⁶³ Pine Gate explains that, for larger interconnection customers that may be developing numerous interconnection requests for multiple transmission providers, overlapping cluster request windows are likely. Additionally, Pine Gate contends that, as contemplated by the NOPR, it is likely that increased requirements and additional information for interconnection customers will be due at the time of interconnection queue entry (e.g., the complex modeling required to be submitted) and burdensome to accommodate in the proposed time frame.

214. On the other hand, some commenters argue that a shorter cluster request window is appropriate. CAISO argues that longer cluster request windows result in low quality requests because interconnection customers have more time within the window to fix their submissions.⁵⁶⁴ CAISO contends that its use of a shorter 15-day interconnection request completeness window followed by a longer validation and scoping meeting window have significantly improved interconnection request quality and the speed with which CAISO processes requests.⁵⁶⁵ Similarly, Tri-State recommends that the cluster request window be shortened because, based on its experience, most interconnection requests submitted in the cluster request window are received

the last two days of the request window.⁵⁶⁶

215. Regarding the requirement for correcting deficiencies in the proposed *pro forma* LGIP section 3.4.4 (Deficiencies in Interconnection Request), Tri-State argues that requiring interconnection customers to provide any requested information within 10 business days after receiving notice of deficiencies in the interconnection request, but no later than the close of the cluster request window, does not take into account that most requests are not submitted until the last day of the cluster request window.⁵⁶⁷

216. Regarding the number of cluster request windows opened each year, a couple of commenters argue that there should be more than one cluster request window per year.⁵⁶⁸ Clean Energy States assert that, because presumably there will be fewer generator interconnection studies to be done, transmission providers should provide opportunities more frequently (e.g., quarterly) for interconnection customers to submit interconnection requests.⁵⁶⁹ Environmental Defense Fund argues that the Commission should require that the cluster request windows occur bi-annually, rather than once a year, to reduce the delay caused by missing a cluster request window while still covering a large enough time period that a number of interconnection requests will be included in each cluster.⁵⁷⁰

217. Southern generally agrees with the Commission that a cluster study process, including the individual facilities study, should be completed within a year, but recommends eliminating unnecessary delays, such as multiple, overlapping clusters, by only permitting one cluster study at a time (i.e., that a new cluster should not commence until the previous cluster has been completed).⁵⁷¹ According to Southern, under this format, an annual cluster study can be performed because the previous cluster study process has been completed. Southern asserts that overlapping cluster study processes will not help end interconnection queue

backlogs and uncertainty, but rather add to them.

218. Regarding the length of the customer engagement window, Clean Energy Associations support the proposed 30-calendar day time frame for the customer engagement window as a baseline.⁵⁷² A number of commenters argue that the proposed 30-calendar day customer engagement window is too short and recommend a longer window.⁵⁷³ Duke Southeast Utilities argue that, based on experience with Duke Carolinas Utilities' cluster study process, which includes a 60-calendar day customer engagement window, the proposed 30-calendar day customer engagement window may not provide sufficient time to facilitate robust engagement.⁵⁷⁴ Duke Southeast Utilities therefore urge the Commission to adopt a 60-calendar day customer engagement window. Xcel describes PSCo's recent interconnection queue reform, which extended the customer engagement window to 95 calendar days to allow interconnection customers additional time to reevaluate their readiness in a way that includes other customers.⁵⁷⁵

219. ISO-NE suggests a 90-calendar day customer engagement window.⁵⁷⁶ In addition, ISO-NE suggests that the Commission clarify that transmission providers may withdraw interconnection requests for which the models and data do not meet the requirements following the customer engagement window in order to improve efficiency. ISO-NE further asks that the Commission recognize the role of the participating transmission owners in performance of interconnection studies and build time into the cluster study time frames that accounts for this coordination.

220. Indicated PJM TOs argue that there should be a 30-calendar day window after the date that the cluster request window closes, and between the time the transmission provider posts the interconnection cases for the cluster study and the cluster study commences, during which interconnection customers qualified to receive CEII information have the opportunity to conduct their own studies with the transmission provider's base case and

⁵⁶⁰ Eversource Initial Comments at 13.

⁵⁶¹ ISO-NE Initial Comments at 22–23; Pine Gate Initial Comments at 16; PJM Initial Comments at 19–20.

⁵⁶² ISO-NE Initial Comments at 22. ISO-NE requests that the Commission consider the following windows for the cluster study process: (i) cluster request window—60 calendar days; (ii) customer engagement window—90 calendar days; (iii) cluster study—270 to 365 calendar days (depending on the size of a given cluster); (iv) cluster restudy—150 calendar days; and (v) facilities study—90 to 180 calendar days. *Id.* at 23.

⁵⁶³ Pine Gate Initial Comments at 16.

⁵⁶⁴ CAISO Initial Comments at 9.

⁵⁶⁵ *Id.* (citing CAISO, CAISO Tariff, app. DD, sections 3.5.1, 3.5.2.2 (16.0.0); *id.* section 6.1.2 (21.0.0)).

⁵⁶⁶ Tri-State states that during its 2022 definitive interconnection system impact study request window, 75% of the interconnection requests were received during the last two days of the request window, and 50% of the interconnection requests were received in the last two days of the 2021 definitive interconnection system impact study request window. *Id.* at 10.

⁵⁶⁷ Tri-State Initial Comments at 27.

⁵⁶⁸ Clean Energy States Initial Comments at 9; Environmental Defense Fund Initial Comments at 4.

⁵⁶⁹ Clean Energy States Initial Comments at 9.

⁵⁷⁰ Environmental Defense Fund Initial Comments at 4.

⁵⁷¹ Southern Initial Comments at 23–24.

⁵⁷² Clean Energy Associations Initial Comments at 19.

⁵⁷³ APS Initial Comments at 10–11; CAISO Initial Comments at 8, 10–11; Duke Southeast Utilities Comments at 8; ISO-NE Initial Comments at 23; Tri-State Initial Comments at 9–10; PJM Initial Comments at 20.

⁵⁷⁴ Duke Southeast Utilities Initial Comments at 8.

⁵⁷⁵ Xcel Initial Comments at 21 (citing *Pub. Serv. Co. of Colo.*, Docket No. ER22–2087–000 (Aug. 9, 2022) (delegated order)).

⁵⁷⁶ ISO-NE Initial Comments at 23.

the new interconnection service requests. Indicated PJM TOs assert that during this time, interconnection customers should be able to withdraw their interconnection request with minimal financial impact.⁵⁷⁷

221. APS states that multiple customers requesting individual scoping meetings could place a significant burden on the transmission provider to schedule several meetings under a condensed time frame if the customer engagement window remains 30 calendar days.⁵⁷⁸ For example, APS states that, assuming all notifications of valid interconnection requests are made by the time the customer engagement window starts, the interconnection customer has 15 business days to request an individual meeting and, if an interconnection customer uses all 15 business days, that is a minimum 21 calendar days out of the total 30 calendar days of the overall customer engagement window. APS contends that this leaves nine calendar days at most (*i.e.*, no more than seven business days) to schedule an individual customer meeting, which could be less if there are holidays occurring within the customer engagement window.

222. Similarly, Tri-State argues that the proposed 30-day customer engagement window is not sufficient to meet the purpose of the customer engagement window and recommends it be extended to allow adequate time to cure deficiencies and hold individual scoping meetings.⁵⁷⁹ Tri-State argues that a 75-day customer engagement window would give interconnection customers an opportunity to: (1) assess the viability of their proposed generating facilities before committing to the interconnection process and subjecting themselves to a withdrawal penalty; and (2) cure deficiencies in their interconnection requests.⁵⁸⁰

iii. Commission Determination

223. We adopt the proposed new *pro forma* LGIP section 3.4.1 (Cluster Request Window), which provides that interconnection customers must submit an interconnection request during a specified period—the cluster request window—a 45-calendar day period with the start date to be determined by each transmission provider. We also adopt the non-refundable \$5,000 application fee required to be submitted with the interconnection request.⁵⁸¹ We also

adopt the requirement that interconnection customers provide requested information within 10 business days of receiving an interconnection request deficiency notice but no later than the close of the cluster request window, as proposed and adopted in new *pro forma* LGIP section 3.4.4 (Deficiencies in Interconnection Request), but we modify that section to clarify the timeline for curing deficiencies. We modify the proposed new *pro forma* LGIP section 3.4.5 (Customer Engagement Window) and extend the customer engagement window from 30 days to 60 calendar days.

224. To ensure clarity for both interconnection customers and transmission providers, based on the record, we believe that 45 calendar days is a sufficient window to adequately notify prospective interconnection customers of the formation of a new cluster but not so long as to delay the processing of the interconnection queue.

225. Contrary to commenters' assertions, we are not persuaded to extend the cluster request window. We do not believe that more time is needed for transmission providers to work with interconnection customers that submitted invalid interconnection requests to cure deficiencies, particularly given the limit we adopt on the time for such additional information to be submitted by interconnection customers, and because the start date of the cluster request window will be included in the transmission provider's LGIP for prospective interconnection customers. We similarly do not believe that shortening the cluster request window would result in fewer "low quality" interconnection requests, as CAISO argues. Given the package of reforms adopted in this final rule, we expect fewer speculative interconnection requests and that interconnection customers will be more likely as a result of this final rule to submit interconnection requests for proposed generating facilities that they believe are viable and ready to move forward in the interconnection process.

226. As for Tri-State's concern about the requirement for correcting deficiencies in new *pro forma* LGIP section 3.4.4 (Deficiencies in Interconnection Request),⁵⁸² we clarify that the 10-business day window is the maximum time allowed to submit a response. This means that an interconnection customer that submits its interconnection request more than 10 business days before the close of the cluster request window will have a full

10 business days to submit a response, whereas an interconnection customer that does not submit its interconnection request until less than 10 business days before the close of the cluster request window will have however many days remain in the cluster request window to respond to any deficiencies.

Accordingly, we modify *pro forma* LGIP section 3.4.4 to provide that if the interconnection customer does not respond before the deadline: (1) the interconnection request is immediately deemed withdrawn (without the cure period provided under *pro forma* LGIP section 3.7); (2) the application fee is forfeited to the transmission provider; and (3) because the cluster study has not commenced, the study deposit and commercial readiness deposit are returned to the interconnection customer.

227. We decline to adopt revisions to the *pro forma* LGIP to require biannual or quarterly cluster study windows, as suggested by Clean Energy States and Environmental Defense Fund. Based on the record, we are not convinced that mandating multiple cluster request windows per year will result in a more efficient cluster study process, especially considering the various sizes of transmission provider footprints and interconnection queues. As we adopt an annual cluster study process, an annual cluster request window will allow transmission providers to dedicate resources to the cluster request window only once per year, dedicating their resources to the remainder of the cluster study process for the rest of the year. We also are not convinced by Environmental Defense Fund's concern with interconnection customers missing a cluster request window, as the date of the start of the cluster request window will be in each transmission provider's LGIP, providing sufficient notice for prospective interconnection customers to prepare required application materials accordingly. We do not believe that additional rules are needed to govern how transmission providers will inform interconnection customers about the cluster request window.

228. We disagree with Southern's suggestion that the cluster study process should only permit transmission providers to conduct one cluster study at a time (*i.e.*, eliminating the possibility of conducting multiple cluster studies at any time). Prohibiting the transmission provider from conducting overlapping cluster studies, in the instance where it is necessary to process cluster subgroups or to process delayed studies, would delay the interconnection process for interconnection customers. We therefore find that this suggestion

⁵⁷⁷ Indicated PJM TOs Reply Comments at 6–7.

⁵⁷⁸ APS Initial Comments at 10.

⁵⁷⁹ Tri-State Initial Comments at 9, 10.

⁵⁸⁰ *Id.* at 9.

⁵⁸¹ We note that the application fee is separate from the initial study deposit, commercial readiness deposit, and deposit in lieu of site control.

⁵⁸² Tri-State Initial Comments at 27.

would contribute to more backlogs and uncertainty, as delays to any cluster study would significantly delay cluster studies for all remaining interconnection requests in an interconnection queue and would be insufficient to ensure that interconnection customers are able to interconnect to the transmission system in a reliable, efficient, transparent, and timely manner. Transmission providers with the capacity to conduct multiple cluster studies at a given time should be permitted to do so to facilitate more effective and efficient interconnection processes.

229. In response to MISO's concern about posting requirements close to the conclusion of the cluster request window, we reiterate that we are extending the length of the customer engagement window from the proposed 30 calendar days to 60 calendar days, which will allow transmission providers a total of 60 calendar days from the close of the cluster request window to post the list of interconnection requests for that cluster.

230. MISO argues that the Commission should not require any OASIS posting prior to the interconnection customer's finalization of the interconnection request because a definitive point of interconnection would have not yet been selected.⁵⁸³ While we recognize MISO's concern about transmission providers posting interconnection request information on OASIS that may later change, we find that providing as much information as possible to interconnection customers early in the customer engagement window provides important transparency to improve interconnection queue processing. Providing information about other interconnection requests that may be studied within the same cluster to interconnection customers considering whether to execute a cluster study agreement and to continue with the cluster, may help them determine the viability of their proposed generating facilities, making it less likely that interconnection customers will withdraw later in the cluster study process, triggering delays and restudies and the associated problems discussed in section II of this final rule.

231. We disagree with Clean Energy States' assertion that a cluster should be able to be modified in response to interconnection customer changes or study findings without threatening the interconnection customer's relative queue priority or paying penalties.⁵⁸⁴

Any interconnection customer that submits a valid interconnection request during the customer request window will become part of the cluster, if the interconnection customer chooses to execute a cluster study agreement by the end of the customer engagement window. The transmission provider may not modify the makeup of the cluster or pick and choose which interconnection customers to keep in the cluster in the way Clean Energy States describes. We also note that interconnection customers can request a modification assessment pursuant to section 4.4 of the *pro forma* LGIP.

232. Regarding the customer engagement window, we adopt the NOPR proposal to add a new section 3.4.5 (Customer Engagement Window) to the *pro forma* LGIP, which provides that, following the close of the cluster request window, the transmission provider begins a customer engagement window. Additionally, we modify the proposal to extend the customer engagement window from 30 calendar days, as proposed, to 60 calendar days. Under this provision, the transmission provider must post new cluster information on OASIS with details of each interconnection request for that cluster, including information on the amount of interconnection service and the location of the proposed generating facility, within the first 10 business days of the customer engagement window. While we extend the customer engagement window from 30 calendar to 60 calendar days, we retain the proposed 10 business day deadline by which the transmission provider must post new cluster information on OASIS. We find that it is more beneficial for interconnection customers to have this information as early as possible, such that they are able to assess the composition of the cluster and make informed choices moving forward with their interconnection requests earlier rather than later in the customer engagement window. Further, during the customer engagement window, an interconnection customer may withdraw its interconnection request without penalty.

233. We extend the customer engagement window to 60 calendar days in response to numerous commenters' arguments that 30 calendar days is insufficient to adequately engage with interconnection customers in a cluster, including based on experience implementing a similar cluster study process to that we require as part of this final rule.⁵⁸⁵ By extending the customer

engagement window, we provide transmission providers with additional time to conduct individual meetings with interconnection customers that submitted interconnection requests within the cluster request window, lessening the burden on transmission providers, particularly larger transmission providers such as RTOs/ISOs.⁵⁸⁶ At the same time, we provide interconnection customers with more time to consider information collected during this period of engagement with the transmission provider—including the makeup of the cluster—and assess the continued viability of their proposed generating facilities before withdrawal of the interconnection request will incur a penalty. For example, the interconnection customer can assess the expected costs of potential network upgrades and the impact of those costs on the viability of its proposed generating facility in the context of the size and location of other interconnection requests in the cluster. Interconnection customers will have 46 calendar days to consider the posted information (which must be posted within 10 business days after the start of the customer engagement window). Not only will this longer time period for interconnection customers to consider whether to withdraw their interconnection requests prior to the start of the cluster study save interconnection customers' resources by avoiding future penalties, but it will also result in more efficient interconnection queue processing with fewer withdrawals later in the cluster study process—withdrawals that can trigger restudies and cause the problems discussed in section II of this final rule.

234. We reject Southern's suggestion that if an interconnection request is not deemed valid,⁵⁸⁷ the interconnection request should be withdrawn from the interconnection queue. Under new section 3.4.5 of the *pro forma* LGIP, any interconnection requests not deemed valid at the close of the customer engagement window will not be included in the cluster. This provision is designed to ensure that interconnection customers and transmission providers have sufficient time to conduct scoping meetings and to discuss and comprehensively evaluate whether interconnection requests are fully valid during the customer engagement window. We find that

Comments at 21 (citing *Pub. Serv. Co. of Colo.*, Docket No. ER22-2087-000 (Aug. 9, 2022) (delegated order)).

⁵⁸⁶ PJM Initial Comments at 20; ISO-NE Initial Comments at 23.

⁵⁸⁷ Southern Initial Comments at 37.

⁵⁸³ MISO Initial Comments at 36–37.

⁵⁸⁴ Clean Energy States Initial Comments at 9.

⁵⁸⁵ Duke Southeast Utilities Initial Comments at 8; PJM Initial Comments at 20; Xcel Initial

forced withdrawals prior to the close of the customer engagement window could result in potentially valid interconnection requests being rejected prior to allowing for interconnection customers and transmission providers to discuss alternative interconnection options, exchange information that could impact such options, and conduct due diligence informed by information discussed during the customer engagement window per the provisions set forth in new *pro forma* LGIP section 3.4.6 detailing scoping meetings.

235. In response to EPSA,⁵⁸⁸ we note that transmission providers and interconnection customers should always work in a manner that is fair and nondiscriminatory, including during the customer engagement window and study agreement negotiation.

236. We decline to adopt MISO's suggestion that transmission providers allow interconnection customers to submit an interconnection request prior to the beginning of the cluster request window. We note that the cluster request window is specifically designed to structure when transmission providers should expect interconnection customers to submit interconnection requests for assessment. We find that allowing interconnection request submission prior to the cluster request window may be burdensome to transmission providers, who would have to dedicate staff and resources towards assessing the viability of interconnection requests before the designated request window opening, instead of concentrating their resources towards the prior stage of the interconnection process.

237. We agree with Enel's recommendation that the Commission include language in the *pro forma* LGIP that, in the cluster study process, the transmission provider will not post detailed information about interconnection requests proceeding or withdrawing until all interconnection requests successfully meet their milestone requirements to proceed, withdraw, or fail to cure their breach within the specific cure period. We note that transmission providers are required to post this information at the conclusion of the cluster request window, at which point interconnection customers must provide significant requirements to proceed. We find that maintaining confidentiality early in the customer engagement window stage is appropriate to reduce opportunities for developers to gain competitive advantage over others before interconnection requests have been

finalized and accepted by the transmission provider. We therefore adopt the following modification to section 3.4.5 of the *pro forma* LGIP (addition in italics): "Within ten (10) Business Days after the close of the Cluster Request Window, Transmission Provider shall post on its OASIS site a list of Interconnection Requests for that Cluster. The list shall identify, for each *anonymized* Interconnection Request[s]: (1) the requested amount of Interconnection Service; (2) the location by county and state; (3) the station or transmission line or lines where the interconnection will be made; (4) the projected In-Service Date; (5) the type of Interconnection Service requested; and (6) the type of Generating Facility or Facilities to be constructed, including fuel types, such as wind, natural gas, coal, or solar. *The transmission provider must ensure that project information is anonymized and does not reveal the identity or commercial information of interconnection customers with submitted requests.*" Further, as discussed below, we modify section 3.4.6 of the *pro forma* LGIP to require that transmission providers exercise the use of non-disclosure agreements to maintain confidentiality of identifying or commercially sensitive information for all other interconnection customers in a group scoping meeting.

e. Scoping Meeting

i. NOPR Proposal

238. In the NOPR, the Commission proposed to renumber and revise section 3.4.4 of the *pro forma* LGIP as section 3.4.6 to provide that, during the proposed customer engagement window, transmission providers must hold a scoping meeting with all interconnection customers whose valid interconnection requests were received in that cluster request window.⁵⁸⁹ Revised section 3.4.6 of the *pro forma* LGIP would also require transmission providers to hold individual customer-specific scoping meetings, at the interconnection customer's request, which must be requested by no later than 15 business days after the close of the cluster request window.

ii. Comments

239. MISO supports the Commission requiring individual customer-specific scoping meetings only when requested by interconnection customers.⁵⁹⁰ APS agrees that a single scoping meeting with all interconnection customers in the cluster during the customer engagement window is beneficial to

transmission providers and eases the burden of scheduling individual meetings with all parties. However, APS has concerns about security and confidentiality.⁵⁹¹ APS notes that, currently, each interconnection customer in the interconnection queue is provided a queue number that becomes the only identifying information posted publicly. APS requests that the Commission provide clarity on whether the requirements to treat additional information as confidential no longer apply or if there is a form of good utility practice as it pertains to holding a single scoping meeting without revealing the identities of the other interconnection customers involved and some examples thereof.

240. MISO expresses concern that the timelines listed in the customer engagement window for posting information are impractical. MISO asserts that the Commission should not require a posting so near the close of the request window because the transmission provider must devote its resources to reviewing the interconnection requests for deficiencies.⁵⁹²

241. Enel and AEE argue that the Commission should also require transmission providers and transmission owners to hold individual, customer-specific scoping meetings at the request of the interconnection customer *before* the customer commits to entering the cluster.⁵⁹³ Enel states that an individual pre-interconnection queue scoping meeting would be an opportunity for the interconnection customer to ask basic questions that can help inform economically significant decisions an interconnection customer faces in deciding to enter the interconnection queue.⁵⁹⁴ As an alternative to requiring a pre-interconnection queue meeting, Enel suggests that the Commission could require transmission providers to maintain an electronic inbox where prospective interconnection customers could submit interconnection-related questions and be guaranteed a response in time to inform decisions on entering the interconnection queue.

242. PJM believes that "grouping kick off meetings" will reduce the burden on transmission owners and providers of scheduling and participating in hundreds of meetings, and the burden on interconnection customers of waiting

⁵⁹¹ APS Initial Comments at 10.

⁵⁹² MISO Initial Comments at 36.

⁵⁹³ AEE Initial Comments at 10; Enel Initial Comments at 10.

⁵⁹⁴ Enel Initial Comments at 10.

⁵⁸⁸ EPSA Initial Comments at 7.

⁵⁸⁹ NOPR, 179 FERC ¶ 61,194 at P 68.

⁵⁹⁰ MISO Initial Comments at 35–36.

for their meeting to be scheduled.⁵⁹⁵ PJM requests clarification that a transmission provider may group requests for this customer engagement window unless an interconnection customer requests otherwise.

243. Tri-State asks the Commission to consider providing only one week to schedule the requested individual customer-specific scoping meeting if the interconnection customer does not request a scoping meeting until the fifteenth business day.⁵⁹⁶

244. Noting the difficulty of coordinating in-person scoping meetings, SEIA requests that the Commission clarify that both generating facility-specific and cluster scoping meetings must provide the option for interconnection customers to attend via teleconference, which is currently not available in all regions.⁵⁹⁷ Enel suggests that, for all scoping meetings, the Commission should require transmission owners, not just interconnection customers and transmission providers, to attend; otherwise, Enel continues, there could be crucial questions that the transmission provider may not be able to answer.⁵⁹⁸

iii. Commission Determination

245. We adopt, in part, the proposed revisions to section 3.4.6 of the *pro forma* LGIP, and therefore require that, during the customer engagement window, transmission providers hold a scoping meeting with all interconnection customers whose interconnection requests were received in that cluster request window. We decline to adopt the NOPR proposal to require transmission providers to hold individual customer-specific scoping meetings at the interconnection customer's request.

246. These revisions to the *pro forma* LGIP align the timing and purpose of scoping meetings between transmission providers and interconnection customers with the adoption of the cluster study process in this final rule. We do not believe that providing the option for interconnection customers to request an individual customer-specific scoping meeting is necessary to ensure that interconnection customer-specific questions are answered as interconnection customers consider whether to remain in the interconnection queue for the cluster study or to withdraw their interconnection request. We find that

this requirement would be comparatively inefficient and burdensome for transmission providers, leading to potentially significant interconnection delays. We thus find that this requirement would be inconsistent with the goal to ensure that interconnection customers are able to interconnect to the transmission system in a reliable, efficient, transparent, and timely manner. We find that the cluster-wide scoping meeting is an appropriate forum in which all interconnection customers can direct questions to transmission providers in an efficient manner without delaying the cluster process with unnecessarily time-consuming individual scoping meetings.

247. We agree with APS' concerns pertaining to good utility practices⁵⁹⁹ for security and confidentiality regarding the disclosure of potentially sensitive commercial information during the cluster scoping meeting that will include numerous interconnection customers in the cluster.⁶⁰⁰ We therefore modify section 3.4.6 of the *pro forma* LGIP to require that transmission providers use non-disclosure agreements to maintain confidentiality of identifying or commercially sensitive information for all other interconnection customers in a group scoping meeting until the close of the customer engagement window.

248. In response to Enel and AEE,⁶⁰¹ we will not modify the *pro forma* LGIP to require transmission providers to hold individual interconnection customer-specific scoping meetings at the request of the interconnection customer before the interconnection customer commits to entering the cluster. As discussed above, we decline to adopt a requirement that transmission providers conduct individual interconnection customer scoping meetings. Additionally, as discussed above,⁶⁰² we adopt the heatmap requirement, which will assist interconnection customers prior to entering the interconnection queue in

evaluating the viability of their proposed generating facilities, and we are also permitting interconnection customers to withdraw from the interconnection queue without penalty prior to the close of the customer engagement window. With these reforms, we do not believe that pre-interconnection queue scoping meetings should be required to ensure just and reasonable rates.

249. In response to MISO's concern about posting requirements close to the conclusion of the cluster request window,⁶⁰³ we find that allowing transmission providers a total of 10 business days from the close of the cluster request window to post the required list of interconnection requests for that cluster is a reasonable amount of time.

250. In response to SEIA,⁶⁰⁴ we decline to modify the *pro forma* LGIP to require transmission providers to include an option for interconnection customers to attend via teleconference for cluster-wide scoping meetings. We do not believe that such level of logistical specification governing how transmission providers choose to conduct scoping meetings with interconnection customers is needed in the *pro forma* LGIP.

251. In response to Enel,⁶⁰⁵ we decline to modify the *pro forma* LGIP to require transmission owners, not just interconnection customers and transmission providers, to attend scoping meetings. The *pro forma* LGIP contemplates that the transmission owner and transmission provider may be the same entity, except in the case of an RTO/ISO, in which case the transmission owner does not have operational control of the facilities and does not perform cluster studies. In the case of an RTO/ISO, only the entity that independently administers the cluster study is required to attend the scoping meeting.

f. Posting of Metrics for Cluster Study Processing Time and Restudy Processing Time

i. NOPR Proposal

252. In the NOPR, the Commission proposed to revise the requirements included in section 3.5.2 of the *pro forma* LGIP to post metrics for interconnection feasibility study processing time and system impact study processing time, to instead require transmission providers to post metrics for cluster study processing time and

⁵⁹⁵ PJM Initial Comments at 20–21.

⁵⁹⁶ Tri-State Initial Comments at 27.

⁵⁹⁷ SEIA Initial Comments at 8.

⁵⁹⁸ Enel Initial Comments at 11.

⁵⁹⁹ Good utility practice means “any of the practices, methods and acts engaged in or approved by a significant portion of the electric industry during the relevant time period, or any of the practices, methods and acts which, in the exercise of reasonable judgment in light of the facts known at the time the decision was made, could have been expected to accomplish the desired result at a reasonable cost consistent with good business practices, reliability, safety and expedition. Good utility practice is not intended to be limited to the optimum practice, method, or act to the exclusion of all others, but rather to be acceptable practices, methods, or acts generally accepted in the region.” See *pro forma* LGIP section 1 (Definitions).

⁶⁰⁰ APS Initial Comments at 10.

⁶⁰¹ AEE Initial Comments at 10; Enel Initial Comments at 10.

⁶⁰² See *supra* section III.A.1.c.

⁶⁰³ MISO Initial Comments at 36.

⁶⁰⁴ SEIA Initial Comments at 8.

⁶⁰⁵ Enel Initial Comments at 11.

cluster restudy processing time.⁶⁰⁶ The Commission also proposed to require transmission providers to post the time from when the transmission provider received a valid interconnection request to the completion of the cluster study, cluster restudy, and facilities study.

253. Specifically, in section 3.5.2.1 of the *pro forma* LGIP, the Commission proposed requiring that transmission providers must post the number of interconnection requests that had cluster studies completed within the transmission provider's coordinated region during the reporting quarter that were completed more than 150 calendar days after the close of the customer engagement window. Similarly, in section 3.5.2.2 of the *pro forma* LGIP, the Commission proposed requiring that transmission providers must post the number of interconnection requests that had cluster restudies completed within the transmission provider's coordinated region during the reporting quarter that were completed more than 150 calendar days after the transmission provider's receipt of the interconnection customer's executed cluster restudy agreement.

254. In section 6.4 of the *pro forma* LGIP, the Commission proposed that transmission providers publicly post new metrics requirements on their websites pertaining to various technical specifications for, and impacts of, potential generating facilities on the transmission provider's transmission system, requiring that these metrics must be updated on the transmission provider's website "within 30 days after the completion of each Cluster Study and Cluster Restudy period."⁶⁰⁷

ii. Comments

255. Clean Energy Associations support the proposal to require the posting of metrics for cluster study processing time and cluster restudy processing time, starting from when the transmission provider received a valid interconnection request.⁶⁰⁸ Clean Energy Associations further argue that these reports should also identify the level of accuracy of these studies relative to final costs.

256. While supportive of the use of metrics that reflect cluster study and cluster restudy processing time, some commenters do not support measuring these metrics from the date that the transmission provider received the interconnection request.⁶⁰⁹ APS argues

that this seems contradictory to the NOPR proposal that the 150-day timeline to process cluster study requests begins at the end of the customer engagement window.⁶¹⁰ MISO asserts that for study metrics to be a useful measurement of whether a transmission provider is meeting its tariff deadlines, the start date used in the metrics must reflect when studies actually commence.⁶¹¹ MISO notes that an interconnection customer may choose to submit its interconnection request weeks ahead of the cluster request window deadline and that the time between that deadline and study commencement is variable.⁶¹² MISO urges the Commission to allow RTOs/ISOs flexibility to maintain metrics that reflect their tariff deadlines, especially where the RTO/ISO already has a Commission-approved cluster study process.

257. Ameren contends that if the Commission retains the proposal to require the posting of the time from when the transmission provider received a valid interconnection request to the completion of the cluster study, cluster restudy, and facilities study, it should clarify that in the context of an RTO/ISO, "complete" refers to the final sign-off by the RTO/ISO.⁶¹³ Ameren asserts that transmission owners within an RTO/ISO may act on behalf of the RTO/ISO transmission provider for purposes of certain studies; however, it is the RTO/ISO and not the transmission owner that decides when a study is complete.

258. In section 6.4 of the *pro forma* LGIP, regarding the proposed requirement that "[t]hese metrics must be updated within 30 days after the completion of each Cluster Study and Cluster Re-study period[.]" Enel recommends that the word "period" should be deleted. Enel argues that the trigger should be the completion of the studies themselves.⁶¹⁴

iii. Commission Determination

259. We adopt the proposed revisions to section 3.5.2 of the *pro forma* LGIP to require transmission providers to post metrics for cluster study processing time and cluster restudy processing time, including the number of cluster studies completed within 150 calendar days of the close of the customer engagement window. We modify section 3.5.2.2 of the *pro forma* LGIP as proposed in the NOPR to be consistent with the new

requirement adopted in section 7.5 of the *pro forma* LGIP that cluster restudies should be completed within 150 calendar days of the transmission provider notifying interconnection customers in the cluster and that a cluster restudy is required. The requirement to post these metrics replaces the existing requirement to post metrics for interconnection feasibility study processing time and system impact study processing time, which were relevant for the serial study process but are no longer relevant for the cluster study process required by this final rule. We therefore believe that these revisions are necessary to implement the change from a serial study process to the cluster study process.

260. As for the point at which to begin measuring the metrics, several commenters argue against using the date on which the transmission provider received the interconnection requests. We clarify that sections 3.5.2.1 and 3.5.2.2 of the *pro forma* LGIP adopted in this final rule establish that these metrics must be measured from the close of the customer engagement window for the cluster study processing time metric and from when transmission provider notifies interconnection customers in the cluster that a cluster restudy is needed for the cluster restudy processing time metric. We find that these are appropriate start dates from which to calculate the metrics because they reflect when the respective studies are to actually commence.⁶¹⁵ We decline to grant additional flexibility to maintain metrics and associated timelines for those metrics, as urged by MISO.⁶¹⁶

261. Regarding Clean Energy Associations' suggestion that the metrics also identify the level of accuracy of studies relative to final costs,⁶¹⁷ we decline to adopt this suggestion. For one, it is unclear to what final costs Clean Energy Associations is referring to. Additionally, the metrics that we require transmission providers to post as part of this final rule focus on the timing of interconnection studies and not on the accuracy of cost estimates. The metrics are intended, as described in Order No. 845, to provide needed transparency "to allow interconnection customers to develop informed expectations about how long the

⁶⁰⁶ NOPR, 179 FERC ¶ 61,194 at P 69.

⁶⁰⁷ Proposed *pro forma* LGIP section 6.4.

⁶⁰⁸ Clean Energy Associations Initial Comments at 20–21.

⁶⁰⁹ APS Initial Comments at 9; MISO Initial Comments at 37.

⁶¹⁰ APS Initial Comments at 9.

⁶¹¹ MISO Initial Comments at 38.

⁶¹² *Id.* (submitting MISO's tariff as an example).

⁶¹³ Ameren Initial Comments at 10–11.

⁶¹⁴ Enel Initial Comments at 83.

⁶¹⁵ APS Initial Comments at 9; MISO Initial Comments at 37–38.

⁶¹⁶ MISO Initial Comments at 38.

⁶¹⁷ Clean Energy Associations Initial Comments at 21.

interconnection study portion of the process actually takes.”⁶¹⁸

262. We decline to adopt Ameren’s suggestion to base the 150-calendar day cluster study deadline on the RTO/ISO’s completion of the cluster study rather than the transmission owner’s completion because the deadlines are applicable to the transmission provider and such a clarification is unnecessary to be added to the *pro forma* LGIP.

263. We agree with Enel’s suggestion to modify proposed *pro forma* LGIP section 6.4—now *pro forma* LGIP section 6.1—by deleting “period” because, as Enel explains, this would more concisely convey that the metrics should be updated following the completion of the studies themselves.⁶¹⁹

g. Interconnection Request Evaluation Process

i. NOPR Proposal

264. In the NOPR, the Commission proposed several changes to *pro forma* LGIP section 4, renamed “interconnection request evaluation process” from “queue position.” First, the Commission proposed to rename and revise section 4.1 of the *pro forma* LGIP as “queue position” and added two new proposed sections: (1) section 4.1.1 (Assignment of Queue Position), which provides that queue position will be based on the time and date that the transmission provider receives all items required under section 3.4 (Valid Interconnection Request) and that there is no queue priority for interconnection customers that opted for informational interconnection studies; and (2) section 4.1.2 (Higher Queue Position), which provides that all interconnection requests studied in a single cluster shall be considered to have equal queue priority, but clusters initiated earlier in time shall be considered to have a higher queue position than clusters initiated later in time.⁶²⁰

265. The Commission also proposed to remove from section 4.2 of the *pro forma* LGIP the provisions allowing transmission providers to study interconnection requests serially and the requirement for transmission providers to provide 180 calendar days’ advance notice before opening a cluster window.⁶²¹ The Commission also proposed to rename section 4.2 of the *pro forma* LGIP “general study process,” and revise it to require transmission providers to perform interconnection studies within the cluster study process.

266. In the NOPR, the Commission also proposed changes to the material modification provisions in section 4.4 (Modification) of the *pro forma* LGIP to provide that moving a point of interconnection shall result in a loss of interconnection queue position if it is deemed a material modification by the transmission provider. Additionally, proposed additions to *pro forma* LGIP section 4.4 require that any identified changes to a planned interconnection, proposed by an interconnection customer or the transmission provider, must be acceptable to any impacted interconnection customer in the same cluster, and such acceptance is not to be unreasonably withheld.⁶²² The Commission noted that the interconnection customer may decide to forego the requested change that constitutes a material modification and retain its existing queue position.⁶²³

267. Further, the Commission proposed to revise section 4.4.1 of the *pro forma* LGIP to make clear that: (1) the modifications previously permitted prior to return of the executed system impact study agreement are now permitted to be made prior to return of the executed cluster study agreement; and (2) for generating plant increases, the incremental increase will be studied with the next cluster study for purposes of cost allocation and study analysis.⁶²⁴ *Pro forma* LGIP section 4.4.1 also explicitly permits specific modifications prior to the interconnection customer’s return of the executed cluster study agreement to the transmission provider, including: (a) a decrease of up to 60 percent of electrical output (MW) of the proposed project, through either a decrease in plant size or a decrease in interconnection service level; (b) modifying the technical parameters associated with the generating facility technology or step up transformer; and (c) modifying the interconnection configuration.

ii. Comments

268. With regards to the proposed changes to section 4.1 (Queue Position), Tri-State questions whether the proposed definition of queue position includes surplus interconnection requests.⁶²⁵ Xcel argues, and EEI agrees, that the Commission should modify the proposal to clarify that queue position or queue priority is based on interconnection request readiness and

not on the date and time the interconnection request is submitted.⁶²⁶

269. CAISO asserts that it is unclear what losing a queue position means in a cluster-based study (e.g., being withdrawn from the interconnection queue or moving to a lower interconnection queue position), but also contends that no specification or reform is necessary because interconnection customers will simply withdraw the modification every time if it is found to be material.⁶²⁷ CAISO argues that the Commission should either remove the “option” to lose an interconnection queue position when a proposed modification is found to be material, or clarify what replaces the interconnection queue position when it is lost.

270. Clean Energy States argue that, in addition to the “signs of commercial progress” proposed by the Commission, clusters should be prioritized for study based on a number of other transparent and quantifiable factors, such as alignment with state policy (e.g., participation in procurement actions), and benefits to low-income, environmentally impacted, and “energy communities” as defined under the Inflation Reduction Act, state policies, and the Justice40 Initiative.⁶²⁸ Clean Energy States assert that clusters could further be prioritized for development by how well the combined cluster meets transmission system needs, with preference for interconnection agreements given to those that result in the lowest cost upgrades, have the most attractive operational profile, or deliver the best reliability improvements.

271. Regarding the proposed changes to *pro forma* LGIP section 4.4 (Modifications), Enel argues that the Commission should remove the proposed language requiring the acceptance of “any impacted Interconnection Customer in the same Cluster” to modify an interconnection request.⁶²⁹ Enel asserts that this requirement not only will be challenging to facilitate (especially in large clusters) but is also a redundant and unnecessary hurdle that could result in anticompetitive behavior. If the Commission keeps this language, to avoid uncertainty regarding the application of this provision, Enel proposes to replace this language with “any Interconnection Customer in the same Cluster whose interconnection would be delayed or whose

⁶¹⁸ Order No. 845, 163 FERC ¶ 61,043 at P 307.

⁶¹⁹ Enel Initial Comments at 83.

⁶²⁰ NOPR, 179 FERC ¶ 61,194 at P 70.

⁶²¹ *Id.* P 72.

⁶²² Proposed *pro forma* LGIP section 4.4.

⁶²³ NOPR, 179 FERC ¶ 61,194 at P 71.

⁶²⁴ *Id.* P 73.

⁶²⁵ Tri-State Initial Comments at 25.

⁶²⁶ EEI Reply Comments at 5; Xcel Initial Comments at 9 n.12.

⁶²⁷ CAISO Initial Comments at 11–12.

⁶²⁸ Clean Energy States Initial Comments at 8.

⁶²⁹ Enel Initial Comments at 19–20.

interconnection-related costs would be increased as a result of the identified changes.”⁶³⁰

272. A few commenters argue that the Commission should consider changes to the material modification process such that only certain modifications trigger a restudy.⁶³¹ Clean Energy Associations recommend that the Commission modify the current material modification definition to clearly state that certain changes are presumptively immaterial, such as changing solar modules or turbines, adding storage capacity, or making minor adjustments to inverter performance. Clean Energy Associations argue that this presumption should be in place so long as planned export and import capacity remains the same.⁶³² Clean Energy Associations also support the concept of expedited, limited studies for project modifications, provided that: (1) an expedited approach does not change the level of interconnection service; (2) there is no impact on cost or timing of an interconnection request that is lower- or equally queued; and (3) it does not cause any reliability concern. Additionally, Pattern Energy asserts that, in its experience, transmission providers apply widely disparate standards where even de minimis impacts—timing or financial—can be determined to be material, which Pattern Energy believes is unreasonable and unduly discriminatory in light of the dynamic nature of the generator interconnection processes.⁶³³ Pattern Energy argues that, absent severe delay, timing delay should not be factored into materiality. Pattern Energy suggests instead that materiality be tied to financial impact on a proposed generating facility (or group of proposed generating facilities).

273. With regard to modifications under proposed *pro forma* LGIP section 4.4.1, MISO supports the proposed revisions to avoid proposed project service level increasing⁶³⁴ and other changes disrupting cluster studies that are in progress or delaying the negotiation and execution timelines for the LGIA.⁶³⁵

274. Enel recommends that the Commission modify the proposed *pro*

forma LGIP section 4.4.1 language to give interconnection customers flexibility in the initial stages of interconnection studies, otherwise, it argues that, interconnection customers are more likely to work around the rules by submitting multiple smaller interconnection requests to retain size flexibility after seeing their initial results, which is more administratively burdensome for transmission providers and leads to its own form of inefficiency as size reductions come in the form of withdrawals at any point in the process rather than being limited to partial reductions prior to entering the cluster restudy.⁶³⁶

275. CREA and NewSun argue that the Commission should explicitly permit interconnection customers to modify their interconnection requests to reduce or eliminate the assignment of network upgrade or stand alone network upgrade costs associated with a proposed generating facility after receipt of the first cluster-level interconnection study.⁶³⁷ CREA and NewSun argue that interconnection customers should be permitted to modify their proposed generating facilities to avoid impacts on the transmission system that trigger network upgrades by, for example, reducing their capacity or installing devices that will limit their output during critical periods.⁶³⁸ CREA and NewSun state that the existing *pro forma* LGIP allows an interconnection customer to downsize its interconnection capacity up to 60% upon receipt of the first interconnection study (*i.e.*, the feasibility study) and before progressing to the second study (*i.e.*, the system impact study).⁶³⁹ CREA and NewSun state that, in contrast, the NOPR proposes to only allow downsizing to occur before receipt of the first cluster system impact study and, as a result, the opportunity to downsize the interconnection request to tailor the facility to the available capacity identified in the first useful interconnection study would be lost. Therefore, CREA and NewSun argue that the Commission should revise the NOPR proposal to ensure that a reasonable amount of downsizing (*e.g.*, 60%) is permitted after receipt of the

first cluster-level interconnection study.⁶⁴⁰

iii. Commission Determination

276. We adopt the proposed revisions to *pro forma* LGIP section 4.1 (Queue Position), section 4.2 (General Study Process), and section 4.4.1, and we modify the proposed definition of queue position and the proposed revisions to the material modification provisions in section 4.4 (Modification). These are discussed below.

277. First, we adopt the proposed revisions to section 4.1 of the *pro forma* LGIP (Queue Position), which reflect the impact of the adoption of the proposed cluster study process in this final rule on queue position assignments. These revisions provide that transmission providers must assign queue positions based on the date and time of receipt of a valid interconnection request, but all interconnection customers that submit interconnection requests within a cluster request window must be considered equally queued. Clusters initiated earlier in time must have a higher queue position than clusters initiated later in time. Under the existing serial study process in the *pro forma* LGIP, queue position had a greater effect on an interconnection customer, for instance, in the allocation of network upgrade costs. By contrast, network upgrade costs within a cluster will not be allocated by queue position; rather, as discussed below, network upgrade costs within a cluster must be allocated generally through a proportional impact method among the interconnection customers in the cluster. Given the nature of the cluster study process, including the nature of the cost allocation for network upgrades, it is appropriate for all interconnection customers in a cluster to be considered equally queued.

278. Second, we adopt the proposal to remove from section 4.2 of the *pro forma* LGIP the provisions allowing transmission providers to study interconnection requests serially and the requirement for transmission providers to provide 180 days' advance notice before opening a cluster window. We also adopt the proposal to rename section 4.2 of the *pro forma* LGIP “General Study Process” and revise it to require transmission providers to perform interconnection studies within the cluster study process. These revisions are necessary to implement the cluster study process required by this final rule.

279. As requested by Tri-State, we clarify that the definition of queue

⁶³⁰ *Id.* at 83.

⁶³¹ AEP Initial Comments at 18; Clean Energy Associations Initial Comments at 42; Pattern Energy Initial Comments at 17; PPL Initial Comments at 11.

⁶³² Clean Energy Associations Initial Comments at 42.

⁶³³ Pattern Energy Initial Comments at 16–17.

⁶³⁴ We understand MISO to be referring to the NOPR proposal that clarified that for plant increases, the incremental increase will be studied with the next cluster study for purposes of cost allocation and study analysis.

⁶³⁵ MISO Initial Comments at 39.

⁶³⁶ Enel Initial Comments at 16–17 (proposing the section be revised to read: “Prior to the deadline to return the milestones listed in Section 7.5 of this LGIP to proceed into the initial Cluster Re-study, modifications permitted. . . .”).

⁶³⁷ CREA and NewSun Initial Comments at 45–47.

⁶³⁸ *Id.* at 46.

⁶³⁹ *Id.* (citing NOPR, 179 FERC ¶ 61,194 at app. B (proposed *pro forma* LGIP section 4.4.1)).

⁶⁴⁰ *Id.* at 47.

position is not relevant to surplus interconnection requests, which are processed outside of the normal interconnection queue, as further discussed in section III.A.2.n below.

280. We also maintain the language in the *pro forma* LGIP that moving a point of interconnection in a way that is deemed a material modification will impact an interconnection customer's queue position, but we clarify the meaning of this in the context of the cluster study process. Specifically, if moving a point of interconnection is deemed by the transmission provider to be a material modification to the interconnection request, and the interconnection customer chooses to proceed with the proposed modification, the interconnection request will be deemed withdrawn and the interconnection customer must re-enter the interconnection queue with a new interconnection request, if it desires to proceed to interconnect. To avoid being deemed withdrawn, the interconnection customer may choose not to move its point of interconnection and to instead remain in the same cluster with the original interconnection request, and, thus, in the same queue position.

281. In response to CREA and NewSun, we do not opine on whether moving a point of interconnection within a cluster will be a material modification. Instead, we leave the determination as to whether it is deemed a material modification to the transmission provider, as in the existing process for determining whether a proposed modification is material.

282. We decline to adopt Clean Energy States' suggestion that, in addition to the "signs of commercial progress" proposed by the Commission, clusters should be prioritized for study based on other transparent and quantifiable factors.⁶⁴¹ Clean Energy States neither provides sufficient rationale or detail regarding such factors by which clusters would be prioritized by transmission providers, nor explains how such prioritization criteria would be determined. We note that the Commission did not propose alternative factors for consideration. Additionally, we note that the record lacks adequate discussion in favor of such prioritization mechanisms or such "factors" for the Commission to consider adopting in this final rule.

283. Third, we modify the proposed definition of queue position in the *pro forma* LGIP and LGIA to provide that queue position is established pursuant to section 4.1 of the *pro forma* LGIP.

Fourth, we modify the proposed revisions to the material modification provisions in section 4.4 (Modification) of the *pro forma* LGIP. We adopt the language that provides that moving a point of interconnection shall result in a loss of queue position if it is deemed a material modification by the transmission provider, for the reasons discussed above. At the same time, we modify the proposed revisions to remove the requirement to obtain the approval of "any impacted Interconnection Customer in the same Cluster."⁶⁴² We are persuaded by Enel's argument that this proposed language in *pro forma* LGIP section 4.4 should be struck for two reasons. First, we find this language unnecessary because the point of interconnection could be changed only if the transmission provider had deemed it to not be a material modification to the interconnection request. Through this requirement, the transmission provider's analysis ensures that the change will not have a material impact on the cost or timing of another interconnection request in the cluster. Second, although the proposal included the language "such acceptance not to be unreasonably withheld," we are still concerned about the potential for anticompetitive behavior to the extent that other interconnection customers in the cluster could refuse to accept the point of interconnection change to limit competition. The interconnection customers within a cluster will be competitors in the wholesale markets in many, if not all, respects. To ensure competitive market outcomes, they should not be provided an undue opportunity to affect the advancement or the costs for a proposed generating facility of one of their competitors.

284. A number of commenters argue that the Commission should consider changes to the material modification process such that only certain modifications trigger a restudy.⁶⁴³ We decline to adopt any of the suggested revisions to the material modification provisions and restudy triggers in the *pro forma* LGIP. We did not propose changes suggested by commenters and do not find the need to adopt such changes to the material modification provisions to ensure just and reasonable rates. We believe that the list of permitted modifications in section 4.4 of the *pro forma* LGIP is appropriate because they allow interconnection customers a degree of flexibility with

respect to generating facility size, interconnection service level, and specific generating facility technology that appropriately balances the high burden to enter the interconnection queue and the lengthy duration of the interconnection queue, during which external factors may change, including the introduction of new technology that interconnection customers may wish to incorporate into their generating facility design.

285. Finally, we adopt the proposed revisions to section 4.4.1 of the *pro forma* LGIP to make clear that: (1) the modifications previously permitted prior to the return of the executed system impact study agreement are now permitted to be made prior to return of the executed cluster study agreement; and (2) for plant increases, the incremental increase will be studied with the next cluster study for purposes of cost allocation and study analysis. We believe that these revisions are needed to implement the cluster study process adopted to ensure that interconnection customers are able to interconnect to the transmission system in a reliable, efficient, transparent, and timely manner. Notably, we believe that prior to the return of the executed cluster study agreement is the appropriate time to permit the modifications previously permitted prior to the return of the executed system impact study agreement because these represent approximately the same point of the interconnection process in a serial study process versus a cluster study process. For plant increases, we find that it is appropriate to exclude increases to proposed generating facility size from the cluster study that is ongoing as any increase to size may create the need for restudies. By moving the increase to the subsequent cluster, the interconnection customer can still pursue its requested addition, albeit on a delayed schedule.

286. We decline to adopt Enel's alternative proposed language that would allow the same modifications permitted to be made prior to the executed cluster study agreement to also be permitted before a cluster restudy. This would not only represent a significant change from the existing modification language in *pro forma* LGIP section 4.4.1, but allowing such modifications at the cluster restudy stage could negatively affect the integrity of the cluster and cause further restudies, which would not ensure that interconnection customers are able to interconnect to the transmission system in a reliable, efficient, transparent, and timely manner.

⁶⁴² Proposed *pro forma* LGIP section 4.4.

⁶⁴³ AEP Initial Comments at 18; Clean Energy Associations Initial Comments at 42; Pattern Energy Initial Comments at 17; PPL Initial Comments at 11.

⁶⁴¹ Clean Energy States Initial Comments at 8.

287. We also decline to adopt the revisions suggested by CREA and NewSun that would explicitly permit interconnection customers to modify their interconnection requests to reduce or eliminate the assignment of network upgrade or stand alone network upgrade costs associated with a proposed generating facility after receipt of the first cluster-level interconnection study. The “loss” of the opportunity for interconnection customers to downsize the interconnection request to tailor the facility to the available capacity identified in the first useful interconnection study⁶⁴⁴ reflects the nature of moving from a serial study process, with an initial, high-level feasibility study, to a cluster study process, with the benefit of a customer engagement window, potential for shared cost allocation, and lower likelihood of cascading restudies. Moreover, providing interconnection customers an opportunity to reduce the size of their proposed generating facilities after the cluster study would undercut the increased certainty and efficiency that are key benefits of the shift to a cluster study process. With the adoption of clusters, a reduction in size that may eliminate one interconnection customer’s cost responsibility for a network upgrade could affect other interconnection customers in the cluster, either by increasing their costs or requiring a different network upgrade. This type of uncertainty could lead to further reductions, withdrawals, and restudies, and would be insufficient to ensure that interconnection customers are able to interconnect to the transmission system in a reliable, efficient, transparent, and timely manner. We note, however, that interconnection customers may request a material modification assessment under section 4.4 of the *pro forma* LGIP for reductions and that if those reductions are found to not be material, the interconnection customer may proceed with them without a loss of queue position.

h. Fewer Than Three Year Extension to Commercial Operation Date

i. NOPR Proposal

288. Currently, if an interconnection customer’s generating facility is delayed by fewer than three years, the *pro forma* LGIP states that such extensions are not material and shall be handled through construction sequencing. However, the *pro forma* LGIP does not state the starting point for this fewer than three-year period. In the NOPR, the

Commission proposed to revise section 4.4.5 of the *pro forma* LGIP, which currently allows an extension of less than three cumulative years of the generating facility’s commercial operation date, to require that the commercial operation date reflected in the initial interconnection request be used in calculating the permissible fewer than three-year extension.⁶⁴⁵

ii. Comments

289. Several commenters contend that the commercial operation dates set out in the executed LGIA, rather than the date in the initial interconnection request, are generally more accurate⁶⁴⁶ and provide more certainty when established at the end of the interconnection study process as they would include the schedule estimates for network upgrades,⁶⁴⁷ and the interconnection customer may have greater control over pursuing its development timeline.⁶⁴⁸

290. Invenergy argues that, because assigned upgrades necessary for interconnection can require more than three years for construction, it would be reasonable to permit a greater extension right of five years from the date set out in the LGIA.⁶⁴⁹ Enel also argues that the Commission should grant a longer extension of time if the transmission provider’s studies are delayed or if more time is required to build network upgrades because these circumstances are beyond the interconnection customer’s control.⁶⁵⁰ Enel also recommends requiring the transmission provider to grant a day-for-day delay to the originally requested commercial operation date for any delays in the study process relative to the LGIP deadlines as well as due consideration for network upgrades that require more than 18 months to design, procure, and construct.

291. Ameren and PPL assert that continuing to provide a three-year extension of the commercial operation date would allow projects to move forward when they are not ready or viable.⁶⁵¹ APS believes that limiting the ability to suspend interconnection requests or extend the commercial operation date to instances of *force majeure*, including where a customer demonstrates specific timeline

obstructions such as permit issuance or supply chain delays, is more in line with the proposals in the NOPR.⁶⁵²

292. NV Energy seeks clarification on how long an interconnection customer may extend its commercial operation date because the *pro forma* LGIP allows seven to 10 years from the initial interconnection request to construct.⁶⁵³ NV Energy requests clarification on how the three-year suspension clause in the *pro forma* LGIA plays into the timeline for the commercial operation date. Pine Gate argues that any extension period from the commercial operation date be subject to the overall seven-year time period for achieving commercial operation.⁶⁵⁴ Invenergy argues that the Commission should also make clear that the limits on the initial proposed in-service date that can be specified in an interconnection request to no more than seven years beyond the interconnection request date, does not limit the ability to take advantage of commercial operation date extensions that are otherwise provided under the *pro forma* LGIP or an LGIA.⁶⁵⁵ For example, some transmission owners have taken the position that, when exercising a suspension right, if the suspension would result in an in-service date greater than seven years after the date specified in the interconnection request, the interconnection customer cannot use its full suspension period. Invenergy asserts that the Commission has already clarified that the interconnection request limitation on proposed in-service dates is applicable only for the purpose of limiting the date requested at the application stage, and does not limit in-service dates that extend beyond that period as a result of other factors, which would include transmission owner delay, exercise of suspension, and here, additional commercial operation date extensions.⁶⁵⁶ Invenergy also states that the Commission should clarify that its revisions to *pro forma* LGIP section

⁶⁵² APS Initial Comments at 7–8 (citing *Midcontinent Indep. Transmission Sys. Operator, Inc.*, 120 FERC ¶ 61,293, at PP 23, 27 (2007)).

⁶⁵³ NV Energy Initial Comments at 5–6. NV Energy states that it currently has several customers that requested to move well beyond the three-year time frame and that most of its interconnection customers use the full seven to 10-year window. *Id.* at 6.

⁶⁵⁴ Pine Gate Initial Comments at 65. Pine Gate also reiterates its comments on the ANOPR, stating that the Commission should expand the interconnection customer’s option to build. *Id.* at 63 (citing Comments of Pine Gate, Docket No. RM21–17–000, at 9–10 (filed Oct. 12, 2021) (citing Order No. 2003, 104 FERC ¶ 61,103 at PP 85, 353)).

⁶⁵⁵ Invenergy Initial Comments at 35 (citing *pro forma* LGIP section 3.4.1 and *pro forma* LGIA art. 5.16).

⁶⁵⁶ *Id.* (citing *Midcontinent Indep. Sys. Operator, Inc.*, 150 FERC ¶ 61,180, at P 23 (2015)).

⁶⁴⁴ CREA and NewSun Initial Comments at 46.

⁶⁴⁵ NOPR, 179 FERC ¶ 61,194 at P 71.

⁶⁴⁶ Invenergy Initial Comments at 34; Ørsted Initial Comments at 8; Pine Gate Initial Comments at 65.

⁶⁴⁷ Ørsted Initial Comments at 8.

⁶⁴⁸ Invenergy Initial Comments at 34.

⁶⁴⁹ *Id.*

⁶⁵⁰ Enel Initial Comments at 18–19.

⁶⁵¹ Ameren Initial Comments at 10; PPL Initial Comments at 11.

4.4.5 are in addition to, and do not limit, an interconnection customer's suspension rights under its interconnection agreement.⁶⁵⁷

iii. Commission Determination

293. We adopt the proposed revisions to section 4.4.5 of the *pro forma* LGIP that require that interconnection customers receive an extension of fewer than three cumulative years of the generating facility's commercial operation date without requiring them to request such an extension from the transmission provider. In response to commenters' concerns, however, we modify our proposal to clarify that the commercial operation date reflected in the initial interconnection request shall be used in calculating the permissible fewer than three-year extension until the interconnection customer executes, or requests the unexecuted filing of, an LGIA. Once the interconnection customer has executed an LGIA or requested that the LGIA be filed unexecuted, the commercial operation date established in the LGIA shall be the date from which the up to three cumulative years is calculated.

294. At the time the *pro forma* LGIP was adopted, the interconnection process was considerably shorter than it is now; the delays and sizeable interconnection queues facing transmission providers create a situation where many interconnection customers use this up to three-year period to ensure that their proposed generating facilities reach commercial operation. Furthermore, the length of the interconnection queues is such that at the time an interconnection customer enters the queue, it may have little idea of how long it will spend in the interconnection queue before commencement of the construction of its generating facility and required interconnection facilities and network upgrades. Thus, we agree with Invenergy, Ørsted, and Pine Gate, and we modify our proposal to require the up to three-year period to commence from the commercial operation date established in the interconnection customer's LGIA once the LGIA is executed or the interconnection customer has requested that it be filed unexecuted with the Commission.

295. We decline commenters' requests to revise the actual length of the permissible extension of a proposed generating facility's commercial operation date. The Commission did not propose to change the length of the permissible extension in the NOPR, and we lack an adequate record that the

existing up to three-year extension is unjust and unreasonable.

296. Commenters request clarification⁶⁵⁸ of how the changes to *pro forma* LGIP section 4.4.5 adopted in this final rule affect other provisions such as *pro forma* LGIP section 3.4.2 and *pro forma* LGIA article 5.16, which provide for extensions of the in-service date or suspension of construction.⁶⁵⁹ We reiterate that the revisions to section 4.4.5 of the *pro forma* LGIP adopted in this final rule establish only the starting point for the less than three-year extension to the commercial operation date. The Commission did not propose in the NOPR, and we do not adopt in this final rule, changes to the extension of in-service date provisions in *pro forma* LGIP section 3.4.2, or to the suspension provision in *pro forma* LGIA article 5.16.

i. Cluster Study Provisions (Pro Forma LGIP Sections 6, 7)

i. NOPR Proposal

297. As part of the proposed revisions to the *pro forma* LGIP, the NOPR proposed to replace section 6 (Interconnection Feasibility Study) with the new requirements to publicly post interconnection information, *i.e.*, the "heatmap" as discussed above in section III.A.1.c, thereby removing the entirety of the feasibility study from the *pro forma* LGIP.⁶⁶⁰ Furthermore, in the NOPR, the Commission proposed to rename *pro forma* LGIP section 7 from "interconnection system impact study" to "cluster study."⁶⁶¹ The Commission proposed revisions to *pro forma* LGIP section 7.1 (Cluster Study Agreement) to state that the transmission provider must tender to each interconnection customer that submitted a valid interconnection request a cluster study agreement no later than five business days after the close of the cluster request window.⁶⁶² The Commission proposed revisions to *pro forma* LGIP section 7.2 (Execution of Cluster Study Agreement) to state that if the interconnection

customer does not provide technical data when it delivers the cluster study agreement, the transmission provider must notify the interconnection customer of the deficiency within five business days, and the interconnection customer must cure the deficiency within 10 business days of receipt of the notice.⁶⁶³ The Commission proposed revisions to *pro forma* LGIP section 7.3 (Scope of Cluster Study Agreement) to make clear that the stability analysis, power flow analysis, and short circuit analysis previously conducted under the feasibility and system impact studies would be conducted on a clustered basis.⁶⁶⁴ The Commission also proposed changes to *pro forma* LGIP section 7.3 to make clear that, for purposes of determining necessary interconnection facilities and network upgrades, the cluster study shall use the level of interconnection service requested by interconnection customers in the cluster, except where the transmission provider otherwise determines that it must study the full generating facility capacity due to safety or reliability concerns. The Commission proposed revisions to *pro forma* LGIP section 7.4 (Cluster Study Procedures) to state that, within 10 business days of simultaneously furnishing a cluster study report and a draft facilities study agreement to each interconnection customer within the cluster and posting such report on OASIS, the transmission provider shall convene an open meeting to discuss the study results and shall, upon request, make itself available to meet with individual interconnection customers after the report is provided.⁶⁶⁵ *Pro forma* LGIP section 7.4 also states that the transmission provider must complete the cluster study within 150 calendar days. The Commission proposed revisions to *pro forma* LGIP section 7.5 (Cluster Study Restudies) to state that the interconnection customer must provide, within 20 calendar days after the cluster study report meeting, a study deposit, demonstration of site control, and a commercial readiness demonstration. *Pro forma* LGIP section 7.5 also states that the transmission provider must complete the cluster restudy within 150 calendar days and delineates the steps the transmission provider must take when a restudy is required or not required.⁶⁶⁶

⁶⁵⁸ Invenergy Initial Comments at 35; NV Energy Initial Comments at 5–6.

⁶⁵⁹ Specifically, *pro forma* LGIP section 3.4.2 (previously *pro forma* LGIP section 3.4.1) provides that the expected in-service date of the new generating facility or increase in capacity of the existing generating facility shall not exceed seven years, but may be extended up to 10 years upon mutual agreement of the transmission provider and interconnection customer. *Pro forma* LGIA article 5.16 provides the interconnection customer the right to suspend work by the transmission provider associated with the construction and installation of transmission provider's interconnection facilities and/or network upgrades for up to three years, at which time the LGIA would be deemed terminated.

⁶⁶⁰ Proposed *pro forma* LGIP section 6.

⁶⁶¹ NOPR, 179 FERC ¶ 61,194 at P 74.

⁶⁶² Proposed *pro forma* LGIP section 7.1.

⁶⁶³ *Id.* at section 7.2.

⁶⁶⁴ *Id.* at section 7.3.

⁶⁶⁵ *Id.* at section 7.4.

⁶⁶⁶ *Id.* at section 7.5.

⁶⁵⁷ *Id.* at 34.

ii. Comments

298. MISO supports the deletion of section 6 of the *pro forma* LGIP and the removal of the feasibility study from the *pro forma* LGIP.⁶⁶⁷

299. In reference to the proposed revisions to section 7.1 (Cluster Study Agreement) of the *pro forma* LGIP, Tri-State stresses that five business days is a tight time frame to tender a valid cluster study agreement to each interconnection customer that submitted a valid interconnection request and argues that this timeline is not feasible for transmission providers with greater than 50 interconnection requests submitted in a cluster request window.⁶⁶⁸

300. In reference to the proposed revisions to section 7.2 of the *pro forma* LGIP, Tri-State asserts that the Commission needs to confirm or reiterate that the interconnection request is considered withdrawn if the interconnection customer does not cure a deficiency identified by the transmission provider.⁶⁶⁹

301. In reference to the proposed revisions to section 7.3 (Scope of Cluster Study) of the *pro forma* LGIP, Tri-State asks the Commission to add language to address situations with studies pending completion of higher-queued project cluster studies.⁶⁷⁰

302. Enel proposes an alternative method for performing the cluster study and restudy to the NOPR proposal.⁶⁷¹ Enel states that if the Commission wants to retain the full scope of analyses in the cluster study, the Commission could require draft power flow analyses to be provided to interconnection customers part way through the cluster study. Enel explains that interconnection customers could be granted the right to reduce interconnection service amounts and make other changes pursuant to *pro forma* LGIP section 4.4.1 following receipt of these results. Enel states that the transmission provider would repeat the power flow analyses until the queue stabilized, with the motivation for interconnection customers to make changes in a timely way being driven by knowledge that once the latter portion of the studies started, the interconnection customer would lose this flexibility.

303. In the list of requirements to proceed to the cluster restudy in proposed revisions to section 7.5 of the *pro forma* LGIP, Enel proposes to add

“(d) election of project changes as permitted by LGIP section 4.4.1.”⁶⁷²

304. In the proposed revisions to section 7.5 of the *pro forma* LGIP, Enel suggests removing item (2), which states that if there are no changes to the composition of the cluster, a cluster restudy is not required, because it claims that the cluster restudy would always be required, at least in part, to add short circuit and stability analyses.

305. With regard to the 150-day cluster study deadline, some commenters generally support the proposed 150-day deadline to complete the cluster study.⁶⁷³ Enel recommends a reduction in the scope and schedule of the cluster study to only include power flow analysis and a short circuit ratio test (to test grid strength and flag potential inverter instability issues) and suggests that this initial cluster study be completed in 90 days instead of 150 days.⁶⁷⁴ Enel contends that, the availability of some information from this first study, interconnection customers retain more flexibility up to the point of committing to the initial cluster restudy, which allows interconnection customers to optimize the characteristics of their proposed generating facilities, most notably the amount of ERIS and NRIS interconnection service requested, in response to the results of the study. Enel argues that early flexibility for optimization of proposed generating facilities is better than forcing interconnection customers to withdraw and re-enter the interconnection queue, is less disruptive, and does not add a year of delay to an interconnection customer completing the interconnection process.

306. A number of commenters argue that the proposed 150-day deadline to complete the initial cluster study may be, or is, too short and recommend a longer study window.⁶⁷⁵ A few commenters also argue that the study timelines are too short, given the proposal to eliminate the reasonable efforts standard and impose penalties on transmission providers that miss those deadlines.⁶⁷⁶ National Grid asserts that the proposed 150-day deadline may be “unreasonably condensed” and could result in a decline in the quality of the

studies, which could lead to delays.⁶⁷⁷ Specifically, National Grid claims that rushing the issuance of the cluster study could lead to later amendments or corrections to certain engineering requirements or cost estimates, that in turn may lead to later-stage interconnection request withdrawals.

307. Tri-State notes that it currently implements a 270-day system impact study period, specifically 150 days for phase 1 (power flow, short circuit, reactive capability) and 120 days for phase 2 (short circuit, transient stability), and has yet to miss a study deadline.⁶⁷⁸ Tri-State argues that this time frame allows for a thorough study process, including coordination with neighboring systems and the correction of errors found in interconnection customers’ modeling data.

308. AES contends that cluster study timelines should be tailored to the types of studies being completed at each stage of the respective cluster.⁶⁷⁹ For example, AES states that steady state analysis takes less time to complete than dynamic analysis, meaning that a longer time frame should be afforded for dynamic analysis in the cluster study process. Accordingly, AES recommends that the Commission adopt a 150-day general study timeline for cluster studies and restudies (system impact study-steady state, and short-circuit analysis performed) and a 200-day timeline for facilities studies (dynamic analysis performed).

309. APS requests that the Commission extend the initial study time frame to 180 days to provide meaningful studies identifying feasible proposed generating facilities, explaining that the APS transmission system is situated in such a way that many interconnections are at jointly owned facilities that require reviews and sign-off from multiple owners, including non-jurisdictional entities.⁶⁸⁰ APS argues that 180 days is more prudent for initial studies, with the exception of specific criteria such as jointly owned facilities, Western Electricity Coordinating Council (WECC) rated paths, and federally owned and Tribal lands, for which studies take significantly longer despite good faith efforts.

310. NYTOs and National Grid argue that the proposal is not clear on which specific steps would be included in the 150-day time frame for the initial cluster study and argue that certain additional special studies that a transmission

⁶⁶⁷ *Id.*

⁶⁷³ AEE Initial Comments at 33; Clean Energy Associations Initial Comments at 20–21; Consumers Energy Initial Comments at 4.

⁶⁷⁴ Enel Initial Comments at 15–16.

⁶⁷⁵ APS Initial Comments at 8; AES Initial Comments at 9; ISO–NE Initial Comments at 23; National Grid Initial Comments at 13–14; Tri-State Initial Comments at 10.

⁶⁷⁶ Dominion Initial Comments at 18; Tri-State Initial Comments at 4.

⁶⁷⁷ National Grid Initial Comments at 13–14.

⁶⁷⁸ Tri-State Initial Comments at 10.

⁶⁷⁹ AES Initial Comments at 9.

⁶⁸⁰ APS Initial Comments at 8–9.

⁶⁶⁷ MISO Initial Comments at 40.

⁶⁶⁸ Tri-State Initial Comments at 31.

⁶⁶⁹ *Id.*

⁶⁷⁰ *Id.*

⁶⁷¹ Enel Initial Comments at 17.

provider may need to perform should not be subject to a 150-day time frame.⁶⁸¹ NYTOs state that it is unclear when the clock starts for the proposed 150-day cluster study deadline and how the scope of the work can be reasonably limited to comply with the 150-day deadline.⁶⁸² NYTOs argue that transmission providers and transmission owners should be afforded the flexibility to provide clarifications and supporting details on compliance.

311. Similarly, National Grid notes that certain RTO/ISO interconnection processes require special supplemental studies in addition to general system impact studies and that, while the NOPR recognizes that these studies may be required to ensure reliable interconnection of new generating facilities, it does not address whether such studies must be conducted within the proposed 150-day cluster study window or could be conducted outside of this window.⁶⁸³ National Grid argues that the time to complete such special studies should not be included in the NOPR's proposed 150-day cluster study window and that the final rule should allow regions to adjust their overall interconnection timelines to accommodate such region-specific studies and take into consideration the time required to develop system models. Finally, National Grid states that the NOPR does not address whether the 150-day cluster study window includes the time required to develop system models and base case data for the cluster study.

312. Several commenters recommend that the Commission provide transmission providers with flexibility to specify study timelines.⁶⁸⁴

313. Regarding the 150-day cluster restudy deadline, several commenters agree that the 150-day deadline is reasonable for a cluster restudy.⁶⁸⁵ Other commenters oppose the 150-day deadline. Bonneville argues that the proposed requirement to conduct a cluster restudy within 150 days is unworkable because the complexity of the cluster restudy would vary and directly impact the completion

timeline.⁶⁸⁶ Therefore, Bonneville seeks a longer time frame.

314. On the other hand, several commenters argue that the deadline to conduct a cluster restudy should be shorter.⁶⁸⁷ AES recommends that the Commission instead require transmission providers to include restudies and model rebuilds between cluster study phases, and to require that the timeline for such model rebuilds and restudies cannot be greater than 90 days.⁶⁸⁸ Enel similarly asserts that if the Commission leaves the cluster study timeline at 150 days and does not change the study scope, the timeline for cluster restudies should be 90 days.⁶⁸⁹

315. A few commenters argue that a 30-day window per restudy is more reasonable because network models are already built, and therefore substantially fewer staff resources should be required than for the initial study.⁶⁹⁰ Cypress Creek adds that a shorter restudy window will also help avoid potential delays in a cluster study process in which multiple restudies are required.⁶⁹¹ AEE also recommends that the Commission limit interconnection restudy timelines to 30 days, arguing that this will encourage transmission providers to treat customers in interconnection restudy with the same urgency as customers in the initial interconnection study, eliminating the possibility of asymmetric treatment of interconnection customers and alleviating interconnection queue congestion by moving those interconnection customers that have been in the interconnection queue the longest to study completion.⁶⁹²

iii. Commission Determination

316. We adopt the proposed deletion of the feasibility study as effectuated by the replacement of the current section 6 (Interconnection Feasibility Study) of the *pro forma* LGIP with the new heatmap requirements, as discussed in section III.A.1.c. The move from a serial interconnection process to the new cluster study process, coupled with the Commission's heatmap requirements, render the feasibility study redundant at best and an unnecessary burden on transmission provider resources. As

discussed in section III.A.1.c, above, we find that the publicly available information required by this final rule will provide the appropriate level of pre-interconnection queue information for interconnection customers to make informed choices.

317. We also adopt, with one modification, the proposed revisions to section 7 of the *pro forma* LGIP that rename it "cluster study" instead of "interconnection system impact study," which set out the requirements and scope of the cluster study agreement, as well as the cluster study and restudy procedures. These revisions reflect the adoption of the cluster study process set forth in this final rule by making clear that the interconnection studies that transmission providers previously performed as part of the serial system impact studies (*i.e.*, stability analysis, power flow analysis, and short circuit analysis) must now be conducted on a clustered basis. As discussed further in section III.A.6 of this final rule, *pro forma* LGIP section 7.5 is modified to remove the requirement to provide an initial study deposit that would have been applied towards the cost of the cluster study process.

318. We are not persuaded by Tri-State's concern that five business days after the close of the cluster request window is too short a time frame for a transmission provider to tender a cluster study agreement to each interconnection customer. Transmission providers may start to prepare cluster study agreements before the close of the cluster request window, as the overall terms and conditions of the cluster study agreement are standardized so that a transmission provider need not engage in rewriting each agreement before tendering a draft to the interconnection customer.

319. In response to Tri-State's comments concerning section 7.2 of the *pro forma* LGIP, we confirm that an interconnection request is considered withdrawn if the interconnection customer does not cure deficiencies identified by the transmission provider. We note that under new section 3.4.4 of the *pro forma* LGIP, if a transmission provider identifies that an interconnection customer's technical data are incomplete or contain errors, both parties must "work expeditiously and in good faith to remedy such issues," but the failure by the interconnection customer to provide the missing data or correct data errors will be treated as a withdrawal and dealt with under *pro forma* LGIP section 3.7 (Withdrawal).

320. In reference to Tri-State's comments on the proposed revisions to

⁶⁸¹ National Grid Initial Comments at 15; NYTOs Initial Comments at 15.

⁶⁸² NYTOs Initial Comments at 15.

⁶⁸³ National Grid Initial Comments at 15.

⁶⁸⁴ AEP Initial Comments at 17–18; APPA–LPPC Initial Comments at 21; Avangrid Initial Comments at 13; Bonneville Initial Comments at 16; CAISO Initial Comments at 11; Dominion Initial Comments at 16–17; Indicated PJM TOs Reply Comments at 39; ISO–NE Initial Comments at 35–37; NYISO Initial Comments at 29, 33; NY Commission and NYISERDA Initial Comments at 5; NYTOs Initial Comments at 14; SEIA Reply Comments at 6.

⁶⁸⁵ AES Initial Comment at 11; APS Initial Comments at 8; ISO–NE Initial Comments at 23.

⁶⁸⁶ Bonneville Initial Comments at 9.

⁶⁸⁷ AEE Initial Comments at 33; Clean Energy Associations Initial Comments at 42; Cypress Creek Initial Comments at 18.

⁶⁸⁸ AES Initial Comments at 11.

⁶⁸⁹ Enel Initial Comments at 83.

⁶⁹⁰ AEE Reply Comments at 11–12; Clean Energy Associations Initial Comments at 42; Cypress Creek Initial Comments at 18; SEIA Initial Comments at 8.

⁶⁹¹ Cypress Creek Initial Comments at 18.

⁶⁹² AEE Initial Comments at 33.

section 7.3 of the *pro forma* LGIP, we decline to add language to address situations with studies pending completion of higher-queued project cluster studies because Tri-State's comments are unclear as to what additional language may be needed.

321. We decline to adopt the alternative methods to perform cluster studies and restudies suggested by Enel. The current *pro forma* LGIP does not prescribe particular study methods and instead provides discretion to transmission providers to determine the particular methods of study appropriate for their transmission systems. We do not, based on the record in this proceeding, find a basis to determine that existing study methods are unjust, unreasonable, and unduly discriminatory or preferential. We also decline to add Enel's suggested section (d) to section 7.5 of the *pro forma* LGIP. *Pro forma* LGIP section 4.4.1 contains the modifications permitted to an interconnection request prior to the return of an executed cluster study agreement, which predates any potential cluster restudy. We further note that the record does not support Enel's modification request.

322. We decline to adopt the provision requiring transmission providers to hold cluster study report meetings with individual customers as proposed in section 7.4 of the *pro forma* LGIP. We find that the individual meetings would be unnecessary, and that individual customers should utilize the group cluster study report meeting as a more efficient forum in which to address any questions or concerns pertaining to the cluster study report. We also find that requiring transmission providers to conduct individual meetings would impose unnecessarily burdensome additional requirements on transmission providers and would be insufficient to ensure that interconnection customers are able to interconnect to the transmission system in a reliable, efficient, transparent, and timely manner.

323. Also, we decline to remove proposed section 7.5(2) of the *pro forma* LGIP, as suggested by Enel. Contrary to Enel's claim, *pro forma* LGIP section 7.3 establishes that the cluster study will consist of short circuit and stability analyses; therefore, we disagree with Enel that a cluster restudy will be needed in all cases to perform the short circuit and stability analyses. Section 7.5(2) states that if there are no changes to the composition of the cluster, a cluster restudy is not required. We find that this is appropriate as it prevents the transmission provider from performing an unnecessary restudy if no conditions

have changed after the first cluster study. This will increase efficiency, free up the transmission provider's resources to perform other studies, and increase the speed of interconnection, ensuring that interconnection customers are able to interconnect to the transmission system in a reliable, efficient, transparent, and timely manner.

324. Based on the record, we find that a 150-calendar day cluster study deadline provides a sufficient time to allow transmission providers to perform the stability analyses, power flow analyses, and short circuit analyses required in the cluster study process for complex clusters consisting of numerous interconnection requests. We find that the 150-calendar day time frame balances providing transmission providers with sufficient time to perform these technical cluster studies while providing certainty about the timeline for the interconnection process and ensuring that cluster studies progress in a timely manner. We note that depending on the cluster size, cluster studies may not always consume the entire 150 calendar days, and if a cluster study is complete prior to this deadline, transmission providers have flexibility to provide the cluster study report at that time prior to the deadline indicated in its LGIP and commence any necessary restudies or move to the facilities study phase. We also note that if a transmission provider progresses to the next study phase prior to the deadline indicated in its LGIP, the transmission provider must post any changes on its website or OASIS.

325. We disagree with Enel's suggestion to reduce the scope and schedule of the cluster study in the proposed *pro forma* LGIP. The cluster study represents the first time the interconnection customer will obtain information about its potential interconnection costs. At this point, interconnection customers will have to make significant financial decisions about whether to remain in the interconnection queue. The information provided in the cluster study report will likely dictate that decision, and we find that the scope of the study is appropriate to allow interconnection customers to make these types of decisions and evaluate whether they will face significant risk. Given that we decline to reduce the scope of the study, we find Enel's request to reduce the timeline overly restrictive. Enel's proposal would create significant burden on transmission providers to perform complex studies in an even shorter timeline, and we therefore decline to adopt it.

326. We also disagree with commenters that argue that the 150-calendar day time frame to complete the cluster study is too short. As discussed above, numerous commenters agree with the Commission's conclusion that the significant interconnection queue backlogs create uncertainty and risk in bringing new generating facilities online, rendering Commission-jurisdictional rates unjust and unreasonable. While we have extended the timeline from that provided in the individual serial study process, we believe that 150 calendar days is a reasonable extension to account for the more complex study. We also note that transmission providers will be conducting only one interconnection study, or at most a small number of interconnection studies, at a time, allowing them to devote more resources to completing the studies in a timely manner. Thus, on balance, we believe that 150 calendar days represents an appropriate and reasonable timeline on which transmission providers must complete initial cluster studies.

327. We disagree with NYTOs that it is not clear as to when the clock starts for the proposed 150-calendar day cluster study deadline, as proposed *pro forma* LGIP section 7.3 contains this information (150 calendar days from the close of the customer engagement window). We also disagree with NYTOs' statement that it is not clear how the scope of the work can be reasonably limited to comply with the 150-calendar day deadline, as we are not proposing to limit the scope of work necessary to effectively run a cluster study. As discussed above, we find that the 150-calendar day cluster study deadline, combined with the fewer necessary studies, provides a reasonable amount of time to allow transmission providers to perform the required studies.

328. In response to National Grid's concern that some RTO/ISO interconnection processes require supplemental studies and that these studies should not be required to be conducted within the 150-calendar day cluster study window, we decline to modify the *pro forma* LGIP to provide for more time for such studies. We also clarify for National Grid that the 150-calendar day deadline includes the time required to develop system models and base case data for the cluster study.

329. Regarding the 150-calendar day cluster restudy deadline, we agree with commenters that the proposed 150-calendar day deadline is reasonable for a cluster restudy. We acknowledge that some commenters argue that 150 calendar days is too short, while others argue that it is too long. On balance, we

find that 150 calendar days is a just and reasonable time frame for purposes of the *pro forma* LGIP that allows transmission providers to conduct potentially complex restudies for instances in which larger clusters experience multiple withdrawals and/or modifications.

330. In response to commenters' arguments that a 150-calendar day restudy deadline is too long, we note that if transmission providers complete the cluster restudy prior to the full 150-calendar day period elapsing, transmission providers may move to the facilities study stage at that time. As such, the adopted 150-calendar day cluster restudy time frame accommodates more complex instances of cluster restudies while still allowing flexibility for transmission providers to move forward without waiting for the deadline to pass if the restudy does not take the full 150 calendar days.

331. Additionally, we decline to adopt suggestions to allow transmission providers flexibility to set their own study deadlines,⁶⁹³ which would undermine the purpose of ensuring that transmission providers complete interconnection studies by standard deadlines prescribed by their tariffs and would thus be insufficient to ensure that interconnection customers are able to interconnect to the transmission system in a reliable, efficient, transparent, and timely manner.

j. Restudies Triggered by Higher- or Equally Queued Generating Facility

i. NOPR Proposal

332. In the NOPR, the Commission proposed to revise section 8.5 (Restudy) of the *pro forma* LGIP to make clear that restudies can be triggered by a higher- or equally queued interconnection request withdrawing from the interconnection queue or modification of a higher- or equally queued interconnection request pursuant to section 4.4 (Modifications) of the *pro forma* LGIP.⁶⁹⁴

ii. Comments

333. Shell argues the withdrawal of an interconnection request should not automatically trigger a cluster restudy, and instead the Commission should consider a process and cost allocation

method that creates a "secondary market" to replace a proposed generating facility that withdraws with another generating facility in the same location or nearby.⁶⁹⁵ CREA and NewSun agree with Shell's suggestion to allow interconnection customers to step in and assume the rights of any interconnection customer that withdraws its interconnection request.⁶⁹⁶ Similarly, R Street argues that the cluster study process should not impede the transfer of interconnection request "ownership," as, according to R Street, allowing parties to trade will help ensure an efficient balance between generation additions and transmission interconnection costs.⁶⁹⁷

334. MISO seeks clarification on the trigger for restudies. MISO states that its understanding is that any modification during its study process that is found to be material would not be allowed.⁶⁹⁸ Further, MISO contends that allowing a material modification to impact an equally queued interconnection customer seems to be inconsistent with the Commission's proposal to modify the definition of material modification.⁶⁹⁹ Therefore, MISO argues that there should not be a need for a restudy due to such modification. MISO asserts that the Commission should not allow modifications during the study process that materially impact other interconnection customers and may require restudies.

iii. Commission Determination

335. We adopt the proposed revisions to section 8.5 of the *pro forma* LGIP to make clear that restudies can be triggered by a withdrawal or modification by a higher- or equally queued interconnection request. First, we clarify that the "modification" we refer to in this section must be explicitly permitted under *pro forma* LGIP section 4.4. Any other modification that triggered a restudy would be found to be material and would not be allowed, as it would affect the cost and/or timing of the other customers in the interconnection queue by necessitating a restudy. Next, we find that restudies may be triggered if there is either a withdrawal or a modification explicitly permitted under *pro forma* LGIP section 4.4. Changes to the composition of the cluster often require the transmission provider to restudy the entire cluster to ensure that all network upgrades and

the associated costs are still needed. Finally, we find that stating that restudy may be required due to the withdrawal or modification of a higher- or equally queued interconnection request, rather than requiring that a restudy must occur, provides the transmission provider with flexibility to assess whether the restudy is necessary. If the transmission provider is able to move forward without performing a full restudy, that is a preferable outcome in terms of interconnection queue efficiency, as the transmission provider can maintain the study milestones already achieved and maintain progress towards completion and operation for generating facilities in the cluster, as opposed to dedicating significant additional time required to restart and conduct the study process over again when it may not be necessary or beneficial to do so.

336. In response to Shell, CREA and NewSun, and R Street, we decline to consider modifications to the *pro forma* LGIP to create a "secondary market" process that would allow one generating facility to replace a similarly situated one that withdraws from the interconnection queue, where that withdrawal would otherwise trigger a restudy. The Commission did not propose such a process in the NOPR, and we do not have a sufficient record to consider adopting such a process in this final rule.

337. In response to MISO, we clarify that material modifications are defined in section 1 of the *pro forma* LGIP as modifications that have a material impact on the cost or timing of any interconnection request with an equal or later queue position. Under section 4.4.3 of the *pro forma* LGIP, if an interconnection customer chooses to move forward with the modification that has been deemed material by the transmission provider, the interconnection customer will lose its queue position and must proceed with a new interconnection request if desired. However, we note that certain modifications as listed in *pro forma* LGIP sections 4.4.1, 4.4.2, and 4.4.5 are permitted regardless of their impact on other interconnection customers.

k. Timing of LGIA Tender, Execution, and Filing

i. NOPR Proposal

338. In the NOPR, the Commission proposed to revise sections 11.1 (Tender) and 11.3 (Execution and Filing) of the *pro forma* LGIP, which include provisions related to the tender, execution, and filing of the LGIA, to incorporate a 60 calendar-day

⁶⁹³ AEP Initial Comments at 17–18; APPA–LPPC Initial Comments at 21; Avangrid Initial Comments at 13; Bonneville Initial Comments at 16; CAISO Initial Comments at 11; Dominion Initial Comments at 16–17; Indicated PJM TOs Reply Comments at 39; ISO–NE Initial Comments at 35–37; NYISO Initial Comments at 29, 33; NY Commission and NYSERDA at 5; NYTOs Initial Comments at 14; SEIA Reply Comments at 6.

⁶⁹⁴ NOPR, 179 FERC ¶ 61,194 at P 75.

⁶⁹⁵ Shell Initial Comments, app. A at i.

⁶⁹⁶ CREA and NewSun Reply Comments at 10.

⁶⁹⁷ R Street Initial Comments at 11.

⁶⁹⁸ MISO Initial Comments at 40.

⁶⁹⁹ *Id.* (referencing NOPR, 179 FERC ¶ 61,194 at P 65).

negotiation period and to incorporate the site control demonstrations and LGIA deposit provisions included in proposed section 3 of the *pro forma* LGIP.⁷⁰⁰

ii. Comments

339. Enel states that many transmission providers and interconnection customers are confused as to how to interpret *pro forma* LGIP sections 11.1 and 11.2 in relation to each other, and Enel thus recommends that the Commission revise and simplify sections 11.1 and 11.2 of the *pro forma* LGIP to provide more clarity.⁷⁰¹ Enel argues that additional changes are needed to address common delays in completion of the final facilities study report; delays in a transmission provider issuing the draft LGIA; and delays in the transmission provider executing the LGIA after receiving the interconnection customer's signature and milestones, and subsequently proposes targeted revisions to *pro forma* LGIP sections 11.1 and 11.2 to provide additional time for interconnection customers to review and negotiate LGIAs.⁷⁰²

340. Tri-State notes that section 11.3 of the *pro forma* LGIP is unclear when it states that the "Transmission Provider must not suspend the LGIA" until the interconnection customer meets the tariff requirements because it is the interconnection customer that has the ability to suspend a proposed generating facility.⁷⁰³

341. APS requests that the Commission be more prescriptive on what is considered reasonable evidence of achieving development milestones when executing an LGIA in the same manner that the Commission defines commercial readiness milestones in order to avoid subjectivity and potential disagreements regarding what is considered "reasonable."⁷⁰⁴ APS also asserts that the reference to simultaneous submission of the interconnection customer-executed LGIA and the continued demonstration of site control is duplicative and unnecessary if an interconnection customer demonstrates site control at the time an interconnection request is made.

342. Hydropower Commenters contend that the Commission should provide additional time for payment of interconnection costs after the interconnection process is complete.⁷⁰⁵

Hydropower Commenters assert that once a transmission provider delivers the interconnection agreement and construction agreement to the interconnection customer, the interconnection customer has only 60 days to execute the agreements and 15 business days after receipt of the signed agreements to demonstrate site control or post a non-refundable additional security deposit to cover the interconnection costs. Hydropower Commenters argue that, because the end of the study process may occur long before a proposed generating facility is fully funded, and the interconnection customer risks losing its queue position if it does not execute the agreements, the Commission should extend this period to at least one year so the interconnection customer has time to secure funding and avoids having to restart the interconnection process.

343. NV Energy similarly suggests changes to the NOPR proposal to allow interconnection customers that request a transmission provider to file an unexecuted LGIA to satisfy these requirements within 15 days of the Commission issuing an order. NV Energy states that the proposed extra time between receiving a draft LGIA and having to satisfy these requirements creates an undue preferential advantage for those interconnection customers that request unexecuted LGIAs to be filed at the Commission and could delay the interconnection process for others.⁷⁰⁶ To address this issue, NV Energy suggests that interconnection customers who choose to have their unexecuted LGIAs filed with the Commission should be required to submit their data to the transmission provider by the day after the filing of the LGIA.

iii. Commission Determination

344. We adopt, in part, and modify, in part, the proposal to revise sections 11.1 and 11.3 of the *pro forma* LGIP, regarding the tendering, execution, and filing of the LGIA, to incorporate a 60-calendar day negotiation period and to incorporate the site control demonstrations and LGIA deposit provisions included in proposed section 3 of the *pro forma* LGIP. We find that the revisions to section 11.1 of the *pro forma* LGIP that we adopt herein clarify the process of tendering an LGIA and the revisions to section 11.3 of the *pro forma* LGIP that we adopt herein incorporate the site control and LGIA deposit provisions adopted elsewhere in this final rule.

345. We do not adopt the proposed revisions to *pro forma* LGIP section 11.3

that reference the commercial readiness demonstration provisions of proposed section 8.1 of the *pro forma* LGIP because we are not adopting those provisions, as discussed below in section III.A.6.

346. We modify the proposed revisions to *pro forma* LGIP section 11.3, as requested by Tri-State, because we agree that the proposal was unclear when it stated that "Transmission Provider must not suspend the LGIA under LGIA article 5.16" until the interconnection customer meets certain tariff requirements. We modify *pro forma* LGIP section 11.3 to instead state: "Interconnection Customer may not request to suspend its LGIA under LGIA Article 5.16 until Interconnection Customer" meets certain tariff requirements. This reflects the fact that it is the interconnection customer, not the transmission provider, that has the right to suspend the LGIA.

347. We also modify proposed section 11.3 of the *pro forma* LGIP in response to NV Energy's concerns about favoring interconnection customers that request a transmission provider to file an unexecuted LGIA. We agree that the proposal has the potential to encourage more filings of unexecuted LGIAs simply to delay the due date for submission of deposits, evidence of site control, and milestone progress data. We therefore modify the proposal such that interconnection customers that request a transmission provider to file an unexecuted LGIA must satisfy these submission requirements within 10 business days after the date of the filing of the unexecuted LGIA with the Commission.

348. We decline to make further modifications to the proposal beyond those discussed above. Enel has neither explained why *pro forma* LGIP sections 11.1, as revised by this final rule, and 11.2, cause an unjust and unreasonable result for interconnection customers, nor has it explained why changes to the negotiation process between transmission providers and interconnection customers are needed at this time.

349. Similarly, we decline APS' request that the Commission be "more prescriptive" on what is considered reasonable evidence of achieving development milestones when executing an LGIA. We believe that the requirement that interconnection customers provide reasonable evidence is sufficient to ensure just and reasonable rates without imposing detailed requirements surrounding the meaning of "reasonable." There is inadequate record to demonstrate a more prescriptive approach is needed.

⁷⁰⁰ NOPR, 179 FERC ¶ 61,194 at P 76.

⁷⁰¹ Enel Initial Comments at 13–14.

⁷⁰² *Id.* at 14–15.

⁷⁰³ Tri-State Initial Comments at 32.

⁷⁰⁴ ASP Initial Comments at 7.

⁷⁰⁵ Hydropower Commenters Initial Comments at 18.

⁷⁰⁶ NV Energy Initial Comments at 20.

For example, development milestones generally involve the execution of contracts or applications for permits.

350. We also decline to adopt Hydropower Commenters' request to modify the *pro forma* LGIP to provide additional time for payment of interconnection costs after the conclusion of the interconnection study process. The *pro forma* LGIP, as modified by this final rule, requires transmission providers to give interconnection customers ample notice of costs and the timing that costs are due as part of the interconnection process so that interconnection customers can secure funding for a proposed generating facility. We are unpersuaded that interconnection customers should have additional time beyond that already provided, especially given the number of generating facilities that have been developed using the existing process and the added transparency that we adopt in this final rule that will only serve to improve the ability of interconnection customers to secure financing.

l. Cluster Subgroups

i. NOPR Proposal

351. In the NOPR, the Commission sought comment on whether to require transmission providers to conduct cluster studies on subgroups of interconnection customers based on areas of geographic and electric relevance, and, if so, whether to adopt provisions governing how cluster areas should be formed to ensure that cluster areas are formed in a transparent and not unduly discriminatory manner.⁷⁰⁷

ii. Comments

352. A number of commenters support permitting transmission providers to study clusters in subgroups based on geographic or electrical relevance,⁷⁰⁸ but some argue that clustering projects in subgroups should not be required.⁷⁰⁹

353. Several entities argue that clustering around subgroups of geographic or electrical relevance is a reasonable approach, particularly for transmission providers with a large or fragmented footprint.⁷¹⁰ Some

commenters argue that creating sub-clusters may not make sense for transmission providers with small footprints.⁷¹¹ Several commenters argue that transmission providers should have flexibility in deciding whether to form subgroups of interconnection customers because geographic and electric relevance will vary with each cluster study.⁷¹² Similarly, some commenters contend that the Commission should not mandate studying subgroups based on geographic and electric relevance, and that the efficacy of this approach should instead first be evaluated through experience.⁷¹³

354. PacifiCorp notes that using cluster study areas allows it to assess and more efficiently allocate the costs of network upgrades to requesters triggering the improvements and protect interconnection customers in different clusters from bearing the cost of network upgrades triggered by interconnection customers in different parts of PacifiCorp's system, thereby facilitating more expedient processing of all the cluster studies.⁷¹⁴ PacifiCorp asserts that its ability to create cluster areas where appropriate is a critical feature of its cluster study process, adding that cluster areas can facilitate expedient processing of interconnection requests that might otherwise be delayed due to restudies or other study complications.⁷¹⁵

355. On the other hand, Pattern Energy asserts that designating subregions may result in separate geographic regions bearing a disproportionate share of network upgrade costs that provide regional benefits and should be subject to regional cost allocations.⁷¹⁶ Pattern Energy notes that it is also important for the transmission provider to review subregional cluster study results and determine whether inter-cluster network upgrades would better serve the needs of the subregional clusters during each planning cycle. Illinois Commission asserts that interconnection requests that are near one another might have a greater impact on each other, and subgroups could ease the study process, but any subgroup process should not

compromise cost or timing efficiency gains that the clustering process is meant to address.⁷¹⁷ OPSI argues that to reduce the "first mover disadvantage" most effectively, the Commission should continue to analyze and further explain in any final rule whether a region-wide, annual cluster in a large region like PJM could benefit from better defined subclusters.⁷¹⁸ OPSI asserts that the Commission should further evaluate methods to ensure that clusters facilitate identification of shared network upgrades by grouping generating facilities based on areas of geographic and electrical relevance.

356. Avangrid contends that the open call cluster request window should have geographic distinctions, but that if the open call results in only one interconnection request in a particular area of the system electrically, this interconnection should be able to undergo a process reminiscent of current serial study processes in a parallel track if it will influence, or be influenced by, the broader cluster study process.⁷¹⁹

357. Some commenters argue that the Commission should set forth specific mandates to transmission providers on how cluster areas should be formed.⁷²⁰ CREA and NewSun argue that clear mandates would prevent transmission providers from subgrouping as a means to engage in anti-competitive conduct (e.g., assigning the utility's own generation to subgroups with lower congestion or network upgrade costs).⁷²¹ Similarly, Fervo Energy contends that the Commission should adopt provisions governing how cluster areas should be formed to ensure that clusters are formed in a transparent and not unduly discriminatory manner.⁷²²

358. Other commenters argue that the Commission should provide flexibility by creating a general framework for defining cluster study subgroups appropriate for their own regions, rather than a specific set of requirements.⁷²³

⁷¹⁷ Illinois Commission Initial Comments at 5.

⁷¹⁸ OPSI Initial Comments at 4.

⁷¹⁹ Avangrid Initial Comments at 12.

⁷²⁰ CREA and NewSun Initial Comments at 48–49; Environmental Defense Fund Reply Comments at 7–8; Fervo Energy Initial Comments at 3.

⁷²¹ CREA and NewSun Initial Comments at 48–49.

⁷²² Fervo Energy Initial Comments at 3.

⁷²³ APS Initial Comments at 9; Clean Energy Associations Initial Comments at 20; ClearPath Initial Comments at 8; EEI Initial Comments at 5; Eversource Initial Comments at 13–14; LADWP Initial Comments at 3; Longroad Energy Initial Comments at 10; MISO Initial Comments at 41–42; New York State Department Initial Comments at 5–6; Pattern Energy Initial Comments at 15; PacifiCorp Initial Comments at 18; PPL Initial Comments at 10; R Street Initial Comments at 11; Tri-State Initial

Continued

⁷⁰⁷ NOPR, 179 FERC ¶ 61,194 at P 77.

⁷⁰⁸ APS Initial Comments at 9; ClearPath Initial Comments at 7; NARUC Initial Comments at 6; NextEra Initial Comments at 14–15; Ørsted Initial Comments at 8; PacifiCorp Initial Comments at 17; Pennsylvania Commission Initial Comments at 8.

⁷⁰⁹ APS Initial Comments at 9; Indicated PJM TOs Initial Comments at 18; NextEra Initial Comments at 15; PJM Initial Comments at 22.

⁷¹⁰ Illinois Commission Initial Comments at 5; NextEra Initial Comments at 14–15; PacifiCorp

Initial Comments at 18; Pennsylvania Commission Initial Comments at 8.

⁷¹¹ NRECA Initial Comments at 19; Tri-State Initial Comments at 11.

⁷¹² Bonneville Initial Comments at 8–9; ClearPath Initial Comments at 8; ENGIE Reply Comments at 2; Fervo Energy Reply Comment at 4; Indicated PJM TOs Initial Comments at 18; SEIA Reply Comments at 6.

⁷¹³ AES Initial Comments at 10; PJM Initial Comments at 22.

⁷¹⁴ PacifiCorp Initial Comments at 18–19.

⁷¹⁵ *Id.* at 17.

⁷¹⁶ Pattern Energy Initial Comments at 16.

Some commenters further contend that transmission providers have extensive knowledge of their own transmission systems,⁷²⁴ and the particular interconnection requests that should and should not be included within a cluster based on their system's geography, electric configuration, or other relevant factors.⁷²⁵

A number of commenters suggest that transmission providers develop subgroup criteria with stakeholder input.⁷²⁶

359. Other commenters argue that the Commission should allow variation in how transmission providers form clusters. For example, R Street argues that the Commission should refrain from being too prescriptive regarding how cluster areas are defined, and instead require that transmission providers publish their cluster definitions well in advance of the request window for interconnection requests.⁷²⁷ Clean Energy States believe that allowing interconnection customers to create their own clusters would result in an internal vetting of proposed generating facilities in the cluster and negotiation about how costs and penalties will be managed.⁷²⁸ Regarding how clusters should be defined, several commenters provide suggestions for subgroup criteria beyond geographic proximity or electrical relevance.⁷²⁹ PPL suggests cluster formation be based on geographic or electrical proximity only and that interconnection customers should not be separated based on fuel type.⁷³⁰ Energy Keepers asserts that, when utilities are considering cluster studies on subgroups of interconnection customers, those clusters should be based on location.⁷³¹ Clean Energy Associations, Vistra, and ENGIE assert that cluster studies should evaluate subgroups of projects based on electric

proximity to one another.⁷³² Further, ENGIE agrees that distribution factors should not be the sole indicator of electrical proximity as there are other factors around which subgroups might appropriately be grouped.⁷³³

360. Xcel argues that it is not necessary to create "separate" clusters for electrically distinct regions, noting that PSCo separates interconnection requests into "study pockets" based on geographic/electrical separation but studies all the interconnection requests in a single cluster.⁷³⁴

361. Clean Energy Associations assert that the Commission should make clear whether a cluster study must identify the upgrades required in order to interconnect every interconnection request in whole, or whether it might identify upgrades that would be sufficient for only a subset of the interconnection requests; if the latter, Clean Energy Associations continue, the Commission should establish a *pro forma* process for determining which requests might proceed with those initial upgrades.⁷³⁵ Clean Energy Associations claim that transmission development is a "lumpy" process, and in some cases there can be "breakpoints" where adding one more generating facility can result in a significant per-unit cost increase compared to the interconnection costs that could have been achieved for a subset of the interconnection requests up to that point. Clean Energy Associations state that, in the current ISO-NE cluster study process, ISO-NE attempts to identify such breakpoints and fills each cluster up to that level, with remaining requests able to either withdraw or proceed into the next cluster study. Some commenters contend that studies should include or consider including breakpoints, which can provide helpful information to inform interconnection customers' next steps.⁷³⁶

362. Finally, several commenters encourage transparency and request that any subgrouping criteria be publicly posted or filed by transmission providers or RTOs/ISOs.⁷³⁷

iii. Commission Determination

363. We will neither require transmission providers to conduct cluster studies on subgroups of interconnection customers based on areas of geographic and electric relevance, nor adopt provisions governing how cluster subgroup areas should be formed. However, we adopt revisions to section 7.4 of the *pro forma* LGIP to permit transmission providers to use subgroups in their cluster study process if they so choose. To the extent a transmission provider chooses to use subgroups, it must include provisions in its *pro forma* LGIP in its tariff that state that it will use subgroups. We further modify section 7.4 of the *pro forma* LGIP to require that the criteria used to define subgroups be publicly posted on a publicly accessible website. We believe that publicly sharing these criteria is important to ensure adequate transparency and to safeguard against the potential for undue discrimination in the design and implementation of cluster subgroups.

364. We agree with commenters that support permitting transmission providers to study clusters in subgroups based on geographic or electrical relevance but argue that clustering projects in subgroups should not be required. We believe that there may be benefits to studying clusters in subgroups in certain circumstances, and therefore we do not want to preclude transmission providers from proposing such a process on compliance. At the same time, based on the record, we do not believe that requiring subgroups for all transmission providers is appropriate. In some instances, the administrative burden of defining and separately studying subgroups may not outweigh the benefits.

365. Consistent with our decision to not require transmission providers to conduct cluster studies on subgroups of interconnection customers, we decline to adopt provisions governing how clusters should be formed. Rather, we believe it more appropriate to allow transmission providers to determine how to define subclusters appropriate for their regions, taking into consideration their system geography, electrical configuration, and other relevant factors.⁷³⁸

Comments at 11; U.S. Chamber of Commerce Initial Comments at 7; Xcel Initial Comments at 23.

⁷²⁴ Shell Initial Comments, app. A at i; Tri-State Initial Comments at 11.

⁷²⁵ U.S. Chamber of Commerce Initial Comments at 7.

⁷²⁶ Interwest Initial Comments at 14; MISO Initial Comments at 42; Northwest and Intermountain Initial Comments at 7; Pattern Energy Initial Comments at 15–16; PacifiCorp Initial Comments at 18 (citing PacifiCorp, Transmission OATT and Service Agmts, Part IV.42.4(a) (5.0.0)); Shell Initial Comments, app. A at i.

⁷²⁷ R Street Initial Comments at 11.

⁷²⁸ Clean Energy States Initial Comments at 10.

⁷²⁹ *Id.* at 5; Fervo Energy Initial Comments at 3; Interwest Initial Comments at 13–14; Longroad Energy Initial Comments at 10; Pattern Energy Initial Comments at 15–16; Pennsylvania Commission Initial Comments at 6.

⁷³⁰ PPL Initial Comments at 10.

⁷³¹ Energy Keepers Initial Comments at 4.

⁷³² Clean Energy Associations Initial Comments at 20; ENGIE Reply Comments at 2; Vistra Initial Comments at 2.

⁷³³ ENGIE Reply Comments at 2.

⁷³⁴ Xcel Initial Comments at 23.

⁷³⁵ Clean Energy Associations Initial Comments at 26.

⁷³⁶ *Id.* at 26–27; SEIA Reply Comments at 6.

⁷³⁷ ENGIE Reply Comments at 2; Fervo Energy Initial Comments at 3; Fervo Energy Reply Comments at 4; Ørsted Initial Comments at 8; R Street Initial Comments at 11; Tri-State Initial Comments at 11.

⁷³⁸ Clean Energy Associations Initial Comments at 20; ClearPath Initial Comments at 8; EEI Initial Comments at 5; Eversource Initial Comments at 13–14; LADWP Initial Comments at 3; Longroad Energy Initial Comments at 10; MISO Initial Comments at 41–42; New York State Department Initial Comments at 5–6; PacifiCorp Initial Comments at 18; Pattern Energy Initial Comments at 15; PPL Initial Comments at 10; Shell Initial Comments,

366. Regarding concerns raised by Pattern Energy and others about the use of subgroups resulting in a disproportionate allocation of network upgrade costs, we note that if a transmission provider opts to study in subgroups, it cannot change how it allocates network upgrade costs. That is, it must follow the requirement adopted in this final rule to use a proportional impact method to allocate system network upgrade costs among all interconnection customers in the cluster regardless of subgroup, as discussed further below. Because transmission providers will be using a proportional impact method to allocate system network upgrade costs, regardless of whether interconnection customers are studied in subgroups, we believe subgroups would not change an interconnection customer's potential cost allocation. An interconnection customer with an impact on a network upgrade would be allocated its portion of the cost of that network upgrade regardless of whether its request was studied in a subgroup with another interconnection customer allocated a different portion of that network upgrade.

m. Restudy

i. NOPR Proposal

367. In the NOPR, the Commission sought comment on whether to specify in the *pro forma* LGIP how cluster studies must be rerun after restudy is triggered or whether there are provisions the Commission could adopt to improve the efficacy of the restudy process, such as preventing excessive restudy by limiting the transmission provider to two restudies per month within the 150-calendar day cluster restudy period.⁷³⁹

ii. Comments

368. Eversource recommends that the Commission adopt detailed restudy rules.⁷⁴⁰ Pine Gate suggests that the Commission provide guidance on when the need for a restudy is triggered, as even minimal changes can trigger long and costly restudies.⁷⁴¹ Pine Gate recommends that the Commission: (1) furnish criteria to be used by transmission providers in determining whether a restudy is required; (2) require transmission providers to limit the scope of restudies if only a local impact is anticipated; (3) require transmission providers to publish

restudy criteria, determinations, and scoping as resources for interconnection customers; (4) permit interconnection customers to send engineering analyses applying the transmission provider's published criteria, which could be used by the transmission provider to help decide whether to conduct a restudy, thereby reducing the transmission providers' burden; and (5) not require every cluster participant to submit additional study deposits until the transmission provider determines the need for and scope of any restudy and affected cluster participants are notified. Pattern Energy believes that transmission providers should be required to develop expedited modeling processes to evaluate whether the withdrawal of an interconnection request or other allowed modification may cause a full restudy.⁷⁴² Pattern Energy argues that such a requirement would allow interconnection customers to make better informed decisions about withdrawing or modifying interconnection requests.

369. Conversely, a number of commenters recommend that the Commission provide flexibility to transmission providers and not adopt overly prescriptive requirements specifying how cluster studies must be rerun after a restudy is triggered.⁷⁴³ MISO encourages the Commission to grant maximum flexibility to transmission providers regarding the necessity of restudies and the scope of restudies as the situations that give rise to restudies are varied and unique.⁷⁴⁴ PJM states that it finds acceptable the NOPR's proposal requiring transmission providers to specify in their tariffs how cluster studies must be rerun, but suggests the Commission avoid being overly prescriptive regarding restudies.⁷⁴⁵ Xcel recommends that the Commission not propose additional prescriptive requirements on how restudies must be performed, but suggests that if there are multiple clusters impacted, where each cluster only has "ready" projects, the transmission provider may combine the clusters into a single cluster for a single restudy instead of restudying multiple clusters.⁷⁴⁶

370. Some commenters support limiting the number of restudies a

transmission provider may perform within a restudy period.⁷⁴⁷ Ameren states that limiting the number of restudies to two within the 150-day cluster restudy period seems reasonable, given the size of the many interconnection queues and the reported uncertainty of interconnection customers in the queue.⁷⁴⁸ Ohio Commission Consumer Advocate concurs that conducting a single cluster study and cluster restudy annually may reduce the risk of cascading restudies occurring if an interconnection customer withdraws from the interconnection queue.⁷⁴⁹

371. A few commenters argue that the Commission should address the lack of any limit on restudy requests, stating that this issue is a known shortcoming that results in essentially unlimited time and resource obligations for interconnection customers.⁷⁵⁰ Southern expresses concern that the proposed *pro forma* LGIP language allows for multiple restudies, which would interfere with a one-year timeline maximum.⁷⁵¹

372. A number of commenters do not support a set limit on the number of restudies a transmission provider may perform.⁷⁵² Bonneville asserts that efforts to prevent excessive restudies (e.g., limit of two per month) could be overly prescriptive.⁷⁵³ Bonneville argues that transmission providers should be afforded the flexibility to determine and publish the timing of any restudy, and limits thereto, on their OASIS sites to help to facilitate transparency and ensure timelines are attainable. NextEra states that experience has shown that having a defined and limited number of restudies, such as in MISO's three-phase process, can help limit the duration of the study process.⁷⁵⁴ However, NextEra contends that it would be too restrictive for the Commission to dictate exactly how transmission providers should limit the number of restudies, and argues that the final rule should instead require that each transmission provider

⁷⁴⁷ Ameren Initial Comments at 8; Clean Energy Associations Initial Comments at 42; Cypress Creek Initial Comments at 18; Ohio Commission Consumer Advocate Initial Comments at 8; Southern Initial Comments at 24.

⁷⁴⁸ Ameren Initial Comments at 8.

⁷⁴⁹ Ohio Commission Consumer Advocate Initial Comments at 8.

⁷⁵⁰ Clean Energy Associations Initial Comments at 42; Cypress Creek Initial Comments at 18 (citing PJM Manual 14A at 26).

⁷⁵¹ Southern Initial Comments at 24.

⁷⁵² Bonneville Initial Comments at 9; MISO Initial Comments at 42, 43; NextEra Initial Comments at 15; PacifiCorp Initial Comments at 20; PJM Initial Comments at 23; Tri-State Initial Comments at 11.

⁷⁵³ Bonneville Initial Comments at 9.

⁷⁵⁴ NextEra Initial Comments at 15.

app. A at i; Tri-State Initial Comments at 11; U.S. Chamber of Commerce Initial Comments at 7.

⁷³⁹ NOPR, 179 FERC ¶ 61,194 at P 78.

⁷⁴⁰ Eversource Initial Comments at 14.

⁷⁴¹ Pine Gate Initial Comments at 62–63.

⁷⁴² Pattern Energy Initial Comments at 17.

⁷⁴³ Bonneville Initial Comments at 9; EEI Initial Comments at 5; Idaho Power Initial Comments at 4; MISO Initial Comments at 43; NYISO Initial Comments at 12; PacifiCorp Initial Comments at 19; PJM Initial Comments at 22–23; Xcel Initial Comments at 24.

⁷⁴⁴ MISO Initial Comments at 43.

⁷⁴⁵ PJM Initial Comments at 22–23.

⁷⁴⁶ Xcel Initial Comments at 24.

propose to the Commission on compliance what rules or processes it will use to ensure there is not an undefined and unpredictable number of restudies, *e.g.*, whether it will have a fixed number of scheduled restudies or some other method to limit the number of restudies and associated potential delays. PacifiCorp notes that, because restudies are typically triggered through a withdrawal or modification of an interconnection request, the transmission provider is responding to changes, typically outside of its control, that warrant a restudy and undertaking efforts to complete the restudy as efficiently as possible.⁷⁵⁵

373. Idaho Power requests clarification surrounding the single cluster and cluster restudy process and the suggested limitation of allowing only two restudies per month within the 150-day cluster restudy period.⁷⁵⁶ Idaho Power states, for example, an entity may have three cluster areas requiring three cluster studies, and withdrawals from those studies may require more than two simultaneous cluster restudies in the same month to prevent delay of any one cluster restudy.

iii. Commission Determination

374. We decline to modify the *pro forma* LGIP to specify how a transmission provider conducts cluster restudies and when it must conduct a cluster restudy. We find persuasive the arguments of several commenters that the Commission allow transmission providers flexibility on how and whether to conduct a restudy and the scope and frequency of any restudies. The transmission provider is best positioned to determine when and how to conduct a restudy, including the scope and frequency of restudies, because it determines the need for the restudies to maintain the reliability of the transmission system.⁷⁵⁷ We agree with commenters like MISO and Xcel that different events can trigger restudies, and transmission providers are in the best position to determine whether an event warrants a restudy, and if so, what the scope of that restudy should be (for example, whether a new study is required, or whether only a modification as to certain model data and a reanalysis is required).⁷⁵⁸

375. As to frequency of restudies, we also agree with PacifiCorp that because

restudies are typically triggered through a withdrawal of an interconnection request, the transmission provider is responding to changes, typically outside of its control, that warrant a restudy, and thus limiting the number of restudies could hinder the ability of a transmission provider to undertake efforts to complete a restudy as efficiently as possible.⁷⁵⁹ Because we are not modifying the *pro forma* LGIP to specify how cluster studies must be rerun after restudy is triggered, we will also not limit the transmission provider to two restudies per month within the 150-calendar day cluster restudy period. We agree with commenters like Bonneville, NextEra, and PacifiCorp that it would be too restrictive for the Commission to dictate exactly how transmission providers should limit the number of restudies.⁷⁶⁰

376. Regarding Idaho Power's request for clarification on the suggested limitation of allowing only two restudies per month within the 150-calendar day cluster restudy period,⁷⁶¹ because we are not adopting a limit of two restudies per month within the restudy period, Idaho Power's clarification request is moot.

n. Exceptions to the Cluster Study Process

i. NOPR Proposal

377. In the NOPR, the Commission sought comment on whether there should be an option in the *pro forma* LGIP for transmission providers to process some interconnection requests outside of the annual cluster study process, and if so, in what circumstances and on what time frame (for completion of the study), and on what priority compared to any active clusters.⁷⁶²

ii. Comments

378. Several parties generally support an option in the *pro forma* LGIP for some interconnection requests to be processed outside of the annual cluster study process,⁷⁶³ with some commenters supporting such an option only under specific circumstances.⁷⁶⁴

⁷⁵⁹ PacifiCorp Initial Comments at 19.

⁷⁶⁰ *Id.*; Bonneville Initial Comments at 9; NextEra Initial Comments at 15.

⁷⁶¹ Idaho Power Initial Comments at 4.

⁷⁶² NOPR, 179 FERC ¶ 61,194 at P 79.

⁷⁶³ AES Initial Comments at 10; Fervo Energy Initial Comments at 3; Ørsted Initial Comments at 9; Tri-State Initial Comments at 11.

⁷⁶⁴ AEP Initial Comments at 19, 42; APPA-LPPC Initial Comments at 15; Clean Energy Associations Initial Comments at 21; CREA and NewSun Initial Comments at 49; Energy Keepers Initial Comments at 4–5; Eversource Initial Comments at 14; Iowa Commission Initial Comments at 3; Northwest and

For example, Ørsted argues that such an option could be beneficial in the case of a stand alone network upgrade built to serve a single interconnection customer that will not impact the cluster.⁷⁶⁵ Some commenters suggest establishing a separate process outside of the cluster study process to expedite certain interconnection requests.⁷⁶⁶ Several commenters contend that an option to study interconnection requests outside of clusters would be particularly beneficial as more renewable generating facilities are added to the resource mix.⁷⁶⁷ Two commenters support exceptions for replacement resources specifically.⁷⁶⁸ A few commenters argue that the Commission should allow transmission providers to separately or individually study certain interconnection requests that are not geographically or electrically relevant to other interconnection requests in the interconnection queue.⁷⁶⁹

379. Additionally, APPA-LPPC request that the Commission recognize that there are transmission providers, principally in rural communities or where the transmission system provides limited opportunities for advantageous interconnections, where there are too few interconnection requests to justify a cluster study approach.⁷⁷⁰ In these cases, APPA-LPPC recommend that the Commission provide for a self-executing “opt out,” permitting the transmission providers to continue to study interconnection requests on a serial basis.

380. Northwest and Intermountain recommend a limited exception to the cluster study process requirement to allow existing interconnection customers seeking to make changes to their proposed generating facilities to be processed outside of the cluster study process where the proposed change had no demonstrable incremental impact on the transmission system.⁷⁷¹

381. Xcel argues that proposed generating facilities needed to serve load should be allowed to be processed

Intermountain Initial Comments at 7; UMPA Initial Comments at 3–4; Xcel Initial Comments at 24.

⁷⁶⁵ Ørsted Initial Comments at 9.

⁷⁶⁶ Clean Energy Associations Initial Comments at 21; Iowa Commission Initial Comments at 4; Navajo Utility Initial Comments at 13; UMPA Initial Comments at 4.

⁷⁶⁷ AEP Initial Comments at 19–20; Clean Energy Associations Initial Comments at 21; ENGIE Reply Comments at 2; Iowa Commission Initial Comments at 4.

⁷⁶⁸ AEP Initial Comments at 19; Clean Energy Associations Initial Comments at 21.

⁷⁶⁹ Energy Keepers Initial Comments at 4–5; Eversource Initial Comments at 14.

⁷⁷⁰ APPA-LPPC Initial Comments at 14–15.

⁷⁷¹ Northwest and Intermountain Initial Comments at 7–8.

⁷⁵⁵ PacifiCorp Initial Comments at 19.

⁷⁵⁶ Idaho Power Initial Comments at 4.

⁷⁵⁷ National Glossary of Terms Used in NERC Reliability Standards, https://www.nerc.com/pa/Stand/Glossary%20of%20Terms/Glossary_of_Terms.pdf.

⁷⁵⁸ MISO Initial Comments at 43; Xcel Initial Comments at 24.

outside of the annual cluster study process.⁷⁷² AEP argues that transmission providers with a reserve margin obligation must have the ability to prioritize the interconnection of needed capacity in the interconnection process.⁷⁷³

382. Iowa Commission argues that state commissions should have the ability to require studies outside of annual cluster studies, which would help increase the availability of needed generation for resource adequacy and maintain local reliability needs, particularly as large intermittent generating facilities are interconnecting to the system at a rapid pace.⁷⁷⁴ Iowa Commission explains that such studies could potentially address increased transmission system stability and also minimize future transmission costs because of the “transient nature” of some load and resource changes.

383. Similarly, UMPA contends that the Commission should require a process outside of the annual cluster study process to expedite interconnection requests that are beyond the exploration phase and ready for development.⁷⁷⁵ UMPA explains that some load serving entities search for potential resources to meet their integrated resource plan based on a request for proposal or certain competitive criteria, but are then confronted with a choice among proposed generating facilities that meet the criteria but are lower in the interconnection queue, or proposed generating facilities that do not satisfy the criteria, but are higher in the interconnection queue. Therefore, UMPA argues that it would be helpful to a load serving entity with a development-ready generating facility to be able to enter into a parallel process outside of the annual cluster study process in order to expedite an interconnection request.

384. AEP also suggests that RTOs/ISOs that have consolidated their small and large generator interconnection procedures into a single generator interconnection procedure should be permitted to propose that all or some smaller-sized generating facilities, such as 20 MW or smaller generating facilities, would be “too small” to need to be included in the cluster.⁷⁷⁶

385. Other commenters believe that any exceptions to the cluster study process requirement should be very

limited.⁷⁷⁷ NRECA asserts that if the final rule provides for any interconnection requests to be processed outside the annual cluster study process, it should be limited to a narrow category of interconnection requests, such as emergency replacements of failed equipment driven by near-term reliability needs.⁷⁷⁸ MISO asserts that there should be very limited exceptions, explaining that it has limited its non-queue interconnection requests to those that are associated with existing generating facilities that do not seek to add new or additional interconnection service, or small interconnection requests.⁷⁷⁹ Outside of those limited exceptions, MISO states that it does not support processing any other interconnection requests outside of the interconnection queue.⁷⁸⁰

386. ENGIE recommends that exceptions be limited to requests that “need[] to be studied outside of the cluster process, e.g., transmission planning and state or public policy issues.”⁷⁸¹ ENGIE states that it is possible that there may be other exceptions made in emergency situations, in which case, the granting of exceptions should be very limited in scope, subject to transparent criteria, and the rationale made publicly available. ENGIE further recommends that every interconnection request, including emergency requests, enter through the cluster request window, but that an emergency request be accelerated if it meets the pre-determined and publicly available requirements.

387. A number of commenters oppose an option to process interconnection requests outside of the annual cluster study process.⁷⁸² A few parties argue that maintaining an option to process interconnection requests outside of the annual cluster study process would likely create an administrative burden for transmission providers without a

clear benefit.⁷⁸³ Some commenters assert that processing certain interconnection requests outside of the interconnection queue could increase the time needed to complete the cluster studies or could increase restudies.⁷⁸⁴

388. Some commenters express concern that such an option could become overly used or abused.⁷⁸⁵ Enel asserts that if interconnection requests could be accepted for processing outside the annual cluster study process, especially on an individual basis, there would be a high degree of interest because this would allow interconnection customers to avoid being allocated the costs of regional upgrades that result from many cluster studies.⁷⁸⁶ Bonneville asserts that permitting an interconnection request to be processed outside of the annual cluster study process would create a “perverse incentive” for some interconnection customers to forgo the cluster study process to avoid cluster study requirements.⁷⁸⁷

389. OMS states that it has considered the benefits of some sort of a “fast-lane process” for resources that are more “certain,” like those that have received all necessary permits and regulatory approvals.⁷⁸⁸ OMS states that use of such a mechanism may be important or necessary in the future to address reliability concerns, but OMS explains that it is neutral on the proposal because bypassing the interconnection queue invites a myriad of potential unintended consequences that might not outweigh the value OMS otherwise envisions in this type of mechanism.

390. PacifiCorp states that the Commission’s proposal on this topic is not clear.⁷⁸⁹ PacifiCorp states that, if the NOPR refers to an interconnection customer’s ability to request surplus or provisional interconnection service or an informational interconnection study, PacifiCorp supports maintaining these options. However, PacifiCorp requests the Commission clarify that requests for such service will be evaluated in the order that completed interconnection requests are received. PacifiCorp states that it does not currently support expanding non-cluster service and study offerings.

⁷⁷⁷ ENGIE Initial Comments at 3; MISO Initial Comments at 44; NRECA Initial Comments at 19–20.

⁷⁷⁸ NRECA Initial Comments at 20.

⁷⁷⁹ MISO Initial Comments at 44. MISO states that these limited exceptions are Surplus Interconnection Requests (MISO, FERC Electric Tariff, attach. X, section 3.2.3 (158.0.0)), a request for Generating Facility Replacement (MISO, FERC Electric Tariff, attach. X, section 3.7 (158.0.0)), and Fast Track Processing that is available to Small Generating Facilities under 5 MW (MISO, FERC Electric Tariff, attach. X, art. 14 (158.0.0)). *Id.* n.100.

⁷⁸⁰ *Id.* at 44.

⁷⁸¹ ENGIE Initial Comments at 3.

⁷⁸² Bonneville Initial Comments at 9; Enel Initial Comments at 19; PacifiCorp Initial Comments at 21; PJM Initial Comments at 23; PPL Initial Comments at 12.

⁷⁸³ Enel Initial Comments at 19; PacifiCorp Initial Comments at 21; PJM Initial Comments at 23.

⁷⁸⁴ Bonneville Initial Comments at 9; Enel Initial Comments at 19; NRECA Initial Comments at 20.

⁷⁸⁵ Bonneville Initial Comments at 9–10; Enel Initial Comments at 19; MISO Initial Comments at 44; NRECA Initial Comments at 20.

⁷⁸⁶ Enel Initial Comments at 19.

⁷⁸⁷ Bonneville Initial Comments at 9–10.

⁷⁸⁸ OMS Initial Comments at 8.

⁷⁸⁹ PacifiCorp Initial Comments at 21.

⁷⁷² Xcel Initial Comments at 24.

⁷⁷³ AEP Initial Comments at 42.

⁷⁷⁴ Iowa Commission Initial Comments at 4.

⁷⁷⁵ UMPA Initial Comments at 3–4.

⁷⁷⁶ AEP Initial Comments at 19.

391. Regarding under what time frame and at what priority interconnection requests should be studied outside of the cluster study process, as compared to any active clusters, Fervo Energy recommends a 270-day time frame for completion of the study with secondary priority to the active cluster studies.⁷⁹⁰

iii. Commission Determination

392. We decline to include an additional option in the *pro forma* LGIP for transmission providers to process some interconnection requests outside the annual cluster study process adopted in this final rule. We find that establishing in the *pro forma* LGIP a separate interconnection process outside the cluster study process could detract from transmission providers' efforts to efficiently process cluster studies—a point persuasively argued by commenters.⁷⁹¹ A separate set of interconnection studies outside of the cluster study process could cause transmission providers to divert resources away from cluster studies and cluster restudies. Such diversion could hinder the transmission provider from meeting the cluster study and cluster restudy deadlines adopted in this final rule, which would be insufficient to ensure that interconnection customers are able to interconnect to the transmission system in a reliable, efficient, transparent, and timely manner. We also find that such an option in the *pro forma* LGIP would be too open-ended, as it would leave a significant amount of discretion to the transmission provider to create new study processes for processing any types of interconnection requests it chooses outside the cluster study process and could therefore result in a separate but unduly discriminatory interconnection process. We further find that establishing such an open-ended option in the *pro forma* LGIP could create an incentive for some interconnection customers to forgo the cluster study process, which could increase the time and resources needed for transmission providers to complete the cluster studies or could increase restudies.⁷⁹²

393. A number of commenters see benefits to establishing an option in the *pro forma* LGIP for particular types of interconnection requests to be processed outside of the annual cluster study

process, such as for generator replacement, projects ready for development, emergency replacements, for certain special circumstances, or for transmission providers who have too few interconnection requests to justify a cluster study approach.⁷⁹³ However, we are not persuaded that establishing such processes in the *pro forma* LGIP is necessary to ensure that interconnection customers are able to interconnect to the transmission system in a reliable, efficient, transparent, and timely manner. We believe that processing such one-off interconnection requests will be needed less often under the cluster study process adopted in this final rule, and therefore, any benefits that exist to processing some interconnection requests outside a transmission provider's interconnection process may be outweighed by the benefit of allowing transmission providers to conduct cluster studies efficiently without diverting resources to a separate set of studies.

394. In response to the Iowa Commission's argument that state commissions should be able to require studies outside of annual cluster studies, we similarly find that any such studies would divert a transmission provider's resources away from conducting the cluster studies and cluster restudies.

395. Regarding AEP's suggestion that those RTOs/ISOs that have consolidated their small and large generator interconnection procedures should be permitted to propose that all or some smaller-sized generating facilities would be "too small" to be included in the cluster, we note that the Commission did not propose the cluster study process for small generating facilities subject to the *pro forma* SGIP.

396. Finally, because we are not revising the *pro forma* LGIP to add a new option for some interconnection requests to be processed outside of the annual cluster study process, we find moot those comments on the time frame and priority of interconnection requests studied outside of the cluster study process.⁷⁹⁴ In response to PacifiCorp,⁷⁹⁵ we clarify that requests for surplus interconnection service, or an optional interconnection study, will continue to be processed as received and outside of

the cluster study process, and that this does not entail an expansion of non-cluster service and study offerings.

o. Other Comments

i. Comments

397. Some entities recommend automation or standardization of the interconnection queue process and studies.⁷⁹⁶ NextEra states that the proposed cluster study process time frame requires significant information technology and personnel resources.⁷⁹⁷ NextEra argues that, despite the lack of such a proposal in the NOPR, automation of the interconnection queue process and studies is likely the key to compressing interconnection process timelines. NextEra encourages the Commission to convene a technical conference or other process to focus on the root causes of interconnection study delays as well as the potential to accelerate the interconnection queue process through enhanced automation.

398. Several commenters argue that the Commission should require transmission providers to provide more cost information to interconnection customers throughout the interconnection process.⁷⁹⁸ Clean Energy Associations and SEIA argue that cluster studies should also ensure that interim cost information is made available to interconnection customers so that they can make more informed decisions earlier in the interconnection process, which will in turn lead to a more efficient interconnection process overall.⁷⁹⁹ Clean Energy Associations argue that as part of the cluster studies provided to interconnection customers prior to their receiving facilities studies, the Commission should require transmission providers to provide interconnection customers with cost estimates for the upgrades required if they were to request ERIS or NRIS (or long-term firm transmission service), respectively—and coupled with minimum thresholds for materiality (such as distribution factor) and transparency regarding how these costs are derived (detailing the assumptions and criteria that will be used).⁸⁰⁰ Clean Energy Associations also suggest that the Commission should provide concrete direction regarding how

⁷⁹⁶ ACORE Initial Comments at 4–5; Clean Energy Associations Initial Comments at 26; NextEra Initial Comments at 13.

⁷⁹⁷ NextEra Initial Comments at 13–14.

⁷⁹⁸ ACE–NY Initial Comments at 4; Clean Energy Associations Initial Comments at 20; Enel Initial Comments at 18; SEIA Initial Comments at 8.

⁷⁹⁹ Clean Energy Associations Initial Comments at 20; SEIA Initial Comments at 8.

⁸⁰⁰ Clean Energy Associations Initial Comments at 27.

⁷⁹⁰ Fervo Energy Initial Comments at 3.

⁷⁹¹ Bonneville Initial Comments at 9; Enel Initial Comments at 19; NRECA Initial Comments at 20; PacifiCorp Initial Comments at 21; PJM Initial Comments at 23.

⁷⁹² Bonneville Initial Comments at 9–10; Enel Initial Comments at 19; MISO Initial Comments at 44; NRECA Initial Comments at 20; PJM Initial Comments at 23.

⁷⁹³ AEP Initial Comments at 19; APPA–LPPC Initial Comments at 14–15; Clean Energy Associations Initial Comments at 21; Energy Keepers Initial Comments at 4–5; Navajo Utility Initial Comments at 13; NRECA Initial Comments at 19–20; UMPA Initial Comments at 3–4.

⁷⁹⁴ Fervo Energy Initial Comments at 3; Tri-State Initial Comments at 12; Xcel Initial Comments at 24–25.

⁷⁹⁵ PacifiCorp Initial Comments at 21.

differing service types should be studied, and what outcome an interconnection customer should receive for making the necessary transmission system improvements to obtain that interconnection service.⁸⁰¹ AEE similarly believes that additional reforms are needed to bring more transparency and predictability to interconnection costs, and without this transparency and predictability, interconnection customers face continued risks of unjust and unreasonable interconnection study results that derail or delay interconnection requests and cause increased costs.⁸⁰²

399. Affected Interconnection Customers state that the Commission should permit interconnection customers to use independent studies to demonstrate whether the request for limited interconnection service would result in stability, short circuit, thermal, and/or voltage issues, if the transmission provider or transmission owner is unable to complete the studies on time.⁸⁰³ Affected Interconnection Customers argue that allowing interconnection customers to use any available resources to conduct these studies would enable already built interconnection facilities to flow power onto the system, as long as studies show that such interim services will not harm the system.

400. Clean Energy Associations ask that in a final rule, the Commission adopt a cost threshold (in terms of the anticipated upgrade cost relative to distribution factor) beyond which upgrades should be evaluated in the next near-term transmission planning process. Similarly, Clean Energy Associations argue that cumulative congestion issues should also be addressed via the transmission planning process.⁸⁰⁴

ii. Commission Determination

401. We decline to adopt the remainder of the proposals advocated for in the comments regarding our requirement for transmission providers to use a cluster study process. We decline to adopt three of these proposals because they are outside the scope of the NOPR: (1) NextEra's request to require or standardize automated processing of interconnection requests;⁸⁰⁵ (2) Clean Energy

Associations' argument that the Commission should adopt a cost threshold beyond which upgrades should be evaluated in the next near-term transmission planning process;⁸⁰⁶ and (3) Clean Energy Associations' argument that the Commission should provide concrete direction regarding how differing service types should be studied, and what outcome an interconnection customer should receive for making the necessary transmission system improvements to obtain that interconnection service.⁸⁰⁷

402. Regarding Affected Interconnection Customers' arguments discussing the use of independent studies, we note that interconnection customers can use independent resources during the interconnection process. However, the results of independent studies will not be binding on transmission providers, as the use of studies conducted by an interconnection customer cannot ensure that the cluster study process results in a just, reasonable, and not unduly discriminatory or preferential outcome for all interconnection customers in the cluster. In addition, transmission providers must be able to conduct the necessary studies to maintain the reliability of their transmission system.

403. We will not require transmission providers to provide additional cost information to interconnection customers that is not already required to be provided pursuant to the *pro forma* LGIP, as modified by this final rule. For example, revised *pro forma* LGIP sections 3.4.5 (Customer Engagement Window) and 8.1 (Interconnection Facilities Study Agreement) require the transmission provider to provide the interconnection customer with a good faith estimate of the costs of the cluster study and the interconnection facility study, respectively. Similarly, revised *pro forma* LGIP sections 7.3 (Scope of Cluster Study) and 8.2 (Scope of Interconnection Facilities Study) require the transmission provider to provide cost estimates for interconnection facilities and network upgrades. It is unclear what other "interim cost information" ⁸⁰⁸ Clean Energy Associations want transmission providers to provide, nor the value of

explore the causes of interconnection study delays and the potential to accelerate the interconnection queue process through enhanced automation. As discussed above, we have adequate record of the causes of interconnection study delays to fashion a remedy with the combination of reforms we adopt in this final rule.

⁸⁰⁶ Clean Energy Associations Initial Comments at 29.

⁸⁰⁷ *Id.*

⁸⁰⁸ *Id.* at 20.

such information vis-à-vis the burden on transmission providers to develop it.

404. Clean Energy Associations argue that as part of the cluster studies provided to interconnection customers prior to receiving facilities studies, the Commission should require transmission providers to provide interconnection customers with cost estimates for the upgrades required if they were to request ERIS or NRIS. Section 3.2 of the *pro forma* LGIP provides that an interconnection customer requesting NRIS may also request that it be concurrently studied for ERIS, up to the point when the facility study agreement is executed. As the *pro forma* LGIP already provides interconnection customers the ability to have both ERIS and NRIS studied concurrently, we find Clean Energy Associations' request moot.

3. Allocation of Cluster Study Costs

a. NOPR Proposal

405. In the NOPR, the Commission proposed to require transmission providers to allocate the shared costs of cluster studies as follows: 90% of the applicable study costs allocated pro rata to interconnection customers based on requested MWs included in the applicable cluster, and 10% of the applicable study costs allocated per capita to interconnection customers based on the number of interconnection requests included in the applicable cluster.⁸⁰⁹ The Commission preliminarily found that this allocation of the costs of cluster studies would result in just and reasonable Commission-jurisdictional rates because it appropriately recognizes that the MW size of a cluster has a dramatic impact on the cost of studying the cluster, while also recognizing that the number of interconnection requests included in the cluster also impacts the cost of studying the cluster, but to a lesser degree. The Commission sought comment on whether a different cost allocation approach may be appropriate or whether each transmission provider should be provided additional flexibility to propose a cost allocation approach on compliance with any final rule.⁸¹⁰

b. Comments

i. Comments in Support

406. Multiple commenters support the proposal.⁸¹¹ Clean Energy Buyers note

⁸⁰⁹ NOPR, 179 FERC ¶ 61,194 at P 82.

⁸¹⁰ *Id.* P 83.

⁸¹¹ Clean Energy Buyers Initial Comments at 8; Consumers Energy Initial Comments at 4; Cypress Creek Initial Comments at 19; Duke Southeast

⁸⁰¹ *Id.* at 29.

⁸⁰² AEE Initial Comments at 12.

⁸⁰³ Affected Interconnection Customers Initial Comments at 21.

⁸⁰⁴ Clean Energy Associations Initial Comments at 29.

⁸⁰⁵ NextEra Initial Comments at 14. We also decline to convene a technical conference to

that certainty and consistency in cost allocation for interconnection studies will be helpful for interconnection customers that site generating facilities in more than one region.⁸¹² Idaho Power adds that a uniform cost allocation would prevent interconnection customers from “shopping around” for the best price for larger generating facility locations.⁸¹³ Duke Southeast Utilities note that Duke Carolinas Utilities’ currently effective LGIP/LGIA contains the same 90/10 cost allocation, which it states provides a balanced and equitable study cost allocation based on the Commission’s cost causation principle.⁸¹⁴ Duke Southeast Utilities assert that the proposed allocation aligns with study deposits that would be submitted based on varying assumptions around the number and size of interconnection requests submitted into the cluster study process.

ii. Comments in Opposition

407. Several commenters oppose the proposal. For instance, National Grid and NRECA argue that any predetermined study cost allocation method will produce results that do not comport with cost causation.⁸¹⁵ National Grid gives the example of a 20 MW generating facility that has unique or complex engineering features at a particular point of interconnection that may require considerably more time to conduct a study than a much larger 100 MW generating facility; in this situation, according to National Grid, the 90/10 cost allocation methodology proposed in the NOPR would not align with cost causation, a problem that would be exacerbated if the interconnection customer withdraws the interconnection request.⁸¹⁶ National Grid asserts that a predetermined cost allocation risks undermining competitive pressures in the interconnection process, which it states should be retained to the maximum extent possible consistent with revisions to mitigate the existing interconnection queue inefficiencies. Similarly, Xcel and NextEra argue that the size of the interconnection request does not impact the study costs by a 9:1 ratio compared to the number of interconnection requests, noting that the

size of the interconnection request does not materially impact the time to add the generating facility to the model or time to design the interconnecting substation.⁸¹⁷ NRECA adds that the Commission has not produced data showing the fixed costs of processing an interconnection request or a precise linear correlation between generating facility size and study costs.⁸¹⁸ rPlus argues that the proposed 90/10 cost allocation is “unduly discriminatory toward pumped storage, and wholly disincentivizes large capacity projects.”⁸¹⁹ rPlus argues that the assertion that the MW size of a cluster study is significantly more impactful on the cost and effort required to perform the study is incorrect. rPlus states that the number of interconnection requests and the cluster size are both burdensome for the study process, as each generating facility requires its own project management, technical review, study implementation, and deliverability assessment.⁸²⁰ SDG&E and SoCal Edison agree that a 90/10 cost allocation would inappropriately burden larger generating facilities with higher study costs, as the level of effort to study an interconnection request is driven more by complexity around the point of interconnection and is not strongly correlated to the size of the generating facility.⁸²¹

iii. Alternatives and Requests for Flexibility

408. Several commenters put forth alternatives to the NOPR proposal. For instance, some commenters generally contend that transmission providers should allocate study costs based on the proposed generating facility’s impact on the overall study, measured by the time and resources expended on a particular generating facility within the study.⁸²² National Grid asserts that this process would be consistent with the current serial study approach, which directly correlates cost responsibility to cost causation.⁸²³ AES argues that the final rule’s cost allocation framework should reflect the reality that study costs are not only a function of generating facility size, but also the location of the

generating facility and the degree to which that location is constrained.⁸²⁴

409. Several commenters argue that the Commission should allocate cluster study costs based solely on the number of interconnection requests in the cluster.⁸²⁵ Ameren and SDG&E state that, in their experience, study costs are not based on the size of the proposed generating facilities.⁸²⁶ In contrast, Fervo Energy argues against allocating study costs evenly to all interconnection customers within a cluster, asserting that it is “not at all clear” how this proposal is just and reasonable, as it strays away from allocating costs on a pro rata basis based on requested MWs.⁸²⁷

410. CAISO argues that the proposal appears arbitrary and capricious because the Commission does not adequately explain the basis for the 90% to 10% ratio.⁸²⁸ CAISO asserts that the 10% allocation is so small as to be de minimis, yet it still increases the administrative burden to allocate the cluster study costs. CAISO argues that it would be much simpler and easier if transmission providers simply allocated all cluster study costs based on the MW capacity alone.

411. Enel argues that there are study phases where it would be more appropriate to assign study costs to individual interconnection requests, “such as the [f]acilities [s]tudy for upgrades assigned to only a single customer.”⁸²⁹ Enel argues that a 90/10 study cost split may disproportionately exclude very small generating facilities which still require modeling from study cost responsibility, and suggests that a minimum MW size be assumed, such as was used to set the minimum study deposit in proposed *pro forma* LGIP section 3.1.1.1.

412. Several commenters argue for a cost allocation of 50% of the study costs based on requested MW and 50% based on the number of interconnection requests in the cluster.⁸³⁰ NextEra states that, based on its experience, it takes comparable time and effort to study a small proposed generating facility as a large one.⁸³¹ NextEra and SoCal Edison argue that allocating study costs based

Utilities Initial Comments at 8–9; Enel Initial Comments at 20; Fervo Energy Initial Comments at 3; Idaho Power Initial Comments at 5; Interwest Initial Comments at 5; Public Interest Organizations Initial Comments at 31; R Street Initial Comments at 11; Tri-State Initial Comments at 3, 12.

⁸¹² Clean Energy Buyers Initial Comments at 8–9.

⁸¹³ Idaho Power Initial Comments at 5.

⁸¹⁴ Duke Southeast Utilities Initial Comments at 8–9.

⁸¹⁵ National Grid Initial Comments at 16; NRECA Initial Comments at 8.

⁸¹⁶ National Grid Initial Comments at 16–17.

⁸¹⁷ NextEra Initial Comments at 16; Xcel Initial Comments at 25.

⁸¹⁸ NRECA Initial Comments at 21.

⁸¹⁹ rPlus Initial Comments at 5.

⁸²⁰ *Id.*; Hydropower Commenters Initial Comments at 27.

⁸²¹ SDG&E Initial Comments at 7; SoCal Edison Initial Comments at 15.

⁸²² AES Initial Comments at 12; Clean Energy Associations Initial Comments at 23; National Grid Initial Comments at 17.

⁸²³ National Grid Initial Comments at 17.

⁸²⁴ AES Initial Comments at 12.

⁸²⁵ Ameren Initial Comments at 11; SDG&E Initial Comments at 7; SoCal Edison Initial Comments at 15–16.

⁸²⁶ Ameren Initial Comments at 11; SDG&E Initial Comments at 7.

⁸²⁷ Fervo Energy Reply Comments at 4.

⁸²⁸ CAISO Initial Comments at 12.

⁸²⁹ Enel Initial Comments at 20.

⁸³⁰ Hydropower Commenters Initial Comments at 26–27; NextEra Initial Comments at 16; Pattern Energy Initial Comments at 18–19; rPlus Initial Comments at 5; SEIA Initial Comments at 9–10.

⁸³¹ NextEra Initial Comments at 16.

mostly on the MW size would likely cause some cross-subsidies from interconnection customers submitting large proposed generating facilities to those submitting smaller ones.⁸³² SEIA notes that the MW size of the cluster may be artificially inflated when certain interconnection customers submit multiple exploratory requests, and recommends a 50/50 cost allocation to deter such requests.⁸³³ SEIA argues that, similar to CAISO's study cost allocation, the Commission should structure the cost allocation so that interconnection customers with multiple interconnection requests are responsible for a greater share of the study costs.⁸³⁴

413. Clean Energy Associations add that cluster studies should be conducted in subgroups based on electrical relevance, and that study costs related to each subgroup should be tracked independently and allocated only among those interconnection customers within that subgroup.⁸³⁵

414. Multiple commenters argue that the Commission should not impose a specific cluster study cost allocation, but instead allow transmission providers flexibility in proposing their own cost allocation methods.⁸³⁶ For example, APPA-LPPC argue that the use of a "one-size-fits-all" approach may result in unreasonable results in certain circumstances.⁸³⁷ APPA-LPPC assert that weighting the allocation of cluster study costs based on MWs may unfairly burden interconnection customers proposing large generating facilities in regions where a cluster is likely to include a large number of relatively small proposed generating facilities and a small number of large proposed generating facilities because study costs do not necessarily track linearly with generating facility size.

415. Several commenters argue that RTOs/ISOs should be able to retain their existing cluster study cost allocations,

where applicable, because those cost allocations accomplish the purpose of the Commission's proposal to equitably allocate study costs among interconnection customers.⁸³⁸

c. Commission Determination

416. We adopt the NOPR proposal, with modification, to revise section 13.3 (Obligation for Study Costs) of the *pro forma* LGIP to allow each transmission provider to propose its own study cost allocation ratio for allocating the shared costs of cluster studies between a per capita basis and pro rata by MW, provided that: between 10% and 50% of study costs must be allocated on a per capita basis, with the remainder (between 90% and 50%) allocated pro rata by MW. Under this revised provision, a transmission provider may propose to retain its existing study cost allocation ratio if it falls within this range and meets the requirements of this final rule.

417. We are persuaded by comments arguing that it is appropriate to allow transmission providers a degree of flexibility in proposing on compliance the method for allocating study costs in their tariff to adapt to their specific regional circumstances and help avoid unreasonable outcomes. Some commenters assert that the NOPR-proposed 90%–10% allocation could in some instances unduly burden larger generating facilities, such as when a cluster includes a large number of interconnection requests representing relatively small generating facilities and a small number of large generating facilities.⁸³⁹ Conversely, other commenters caution that straying too far from the NOPR proposal for a 90%–10% allocation could disproportionately burden smaller generating facilities, given the role that size may play in determining study costs.⁸⁴⁰ Accordingly, we believe that granting transmission providers the flexibility to propose in their tariff the study cost allocation appropriate to their region, within the limits detailed above, strikes a better balance than the NOPR proposal.

418. The revised study cost allocation requirements that we adopt in this final

rule recognize that cluster study costs are impacted by both the number of interconnection requests in a cluster and the size of the proposed generating facilities in each cluster. We find that requiring transmission providers to allocate between 10% and 50% of cluster study costs on a per capita basis is just and reasonable because it ensures that interconnection customers that propose smaller generating facilities or submit multiple interconnection requests to explore different interconnection scenarios for a single proposed generator adequately contribute to study costs, particularly given that some study costs are incurred independent of the MW size of a specific proposed generating facility in a cluster.⁸⁴¹ Further, we agree with commenters that observe that not all study costs track linearly with generating facility size because there are other factors, such as the point of interconnection selected, that can lead to increasingly complex studies and correspondingly higher study costs.⁸⁴² We believe that the per capita component of the study cost allocation requirements addresses this fact. Requiring a per capita component also ensures that an interconnection customer that proposes a large generating facility in a cluster of many smaller generating facilities will not bear a disproportionate amount of the study costs. We likewise find that requiring transmission providers to allocate between 50% and 90% of study costs on a pro rata by MW basis prevents a disproportionate amount of study costs from being allocated to interconnection customers that propose smaller generating facilities in the cluster. The pro rata by MW component reflects the fact that, to a significant extent, study costs correlate to the total MW size of the cluster. In general, even if the number of interconnection requests in each cluster remains constant, we expect that a cluster of 10,000 MW will be significantly more costly to study than a cluster of 100 MW.⁸⁴³ Accordingly, requiring that a substantial share of study costs is allocated based on each generating facility's contribution to the total MW size of the cluster study ensures consistency with cost causation principles.

419. We disagree with CAISO that the Commission should require the

⁸³² *Id.*; SoCal Edison Initial Comments at 15–16.

⁸³³ SEIA Initial Comments at 10.

⁸³⁴ *Id.* (citing *Cal. Indep. Sys. Operator, Inc.*, 140 FERC ¶ 61,070, at P 4 (2012)).

⁸³⁵ Clean Energy Associations Initial Comments at 23.

⁸³⁶ AES Initial Comments at 12; Ameren Initial Comments at 11; APPA-LPPC Initial Comments at 3; Bonneville Initial Comments at 10; Clean Energy Associations Initial Comments at 24; Dominion Initial Comments at 19; Indicated PJM TOs Initial Comments at 18–19; ISO-NE Initial Comments at 25; MISO Initial Comments at 45; National Grid Initial Comments at 16; NextEra Initial Comments at 16–17; NRECA Initial Comments at 8; NYISO Initial Comments at 13; Omaha Public Power Initial Comments at 5; Ørsted Initial Comments at 9; Pattern Energy Initial Comments at 19; PPL Initial Comments at 12; R Street Initial Comments at 11; SEIA Initial Comments at 10; Xcel Initial Comments at 25.

⁸³⁷ APPA-LPPC Initial Comments at 16.

⁸³⁸ Dominion Initial Comments at 19; Indicated PJM TOs Initial Comments at 18–19; ISO-NE Initial Comments at 25; MISO Initial Comments at 45; NYISO Initial Comments at 14; Omaha Public Power Initial Comments at 5; PJM Initial Comments at 35; SPP Initial Comments at 7. In response, Fervo Energy cautions against permitting transmission providers too much flexibility, arguing that this opens the door for undue discrimination against interconnection customers. Fervo Energy Reply Comments at 4.

⁸³⁹ APPA-LPPC Initial Comments at 16.

⁸⁴⁰ Fervo Energy Reply Comments at 4–5.

⁸⁴¹ SDG&E Initial Comments at 7; SoCal Edison Initial Comments at 15.

⁸⁴² AES Initial Comments at 12; APPA-LPPC Initial Comments at 16; NRECA Initial Comments at 21.

⁸⁴³ Fervo Initial Comments at 4.

allocation of all cluster study costs based on the MW capacity because allocating 10% of study costs on a per capita basis is *de minimis* and not worth the administrative burden. First, this final rule now allows transmission providers to allocate up to 50% of costs on a per capita basis. Even if a transmission provider chooses to allocate only 10% of study costs on a per capita basis, as explained above, we believe that this is an important component that is needed to ensure that study costs are allocated in a manner that is at least roughly commensurate with estimated benefits (*i.e.*, consistent with cost causation). We are unpersuaded that the administrative burden associated with allocating a potentially small fraction of the study costs among interconnection customers in a cluster outweighs the benefits, particularly given that nothing in the record demonstrates that those administrative costs are significant.

420. In response to commenters' arguments in favor of a uniform study cost allocation method across regions, we find that the benefits of allowing transmission providers flexibility to tailor their study cost allocation to the specific circumstances of their region outweigh the benefits of uniformity cited by commenters, such as consistency and preventing "shopping around." We believe that the guardrails that we provide in this final rule will ensure just, reasonable, and not unduly discriminatory or preferential rates while at the same time addressing concerns with the different characteristics of regions. We urge stakeholders to engage with transmission providers as part of the compliance process as the transmission providers develop their proposed study cost allocations.

421. In response to National Grid, AES, and Clean Energy Associations' comments arguing that costs should be allocated based on individual calculations of the actual time and resources expended on a particular interconnection request, we find that such individual calculations would not only increase the administrative burden on transmission providers, but also would offer little benefit given the cluster study context, which requires transmission providers to evaluate multiple interconnection requests simultaneously.⁸⁴⁴ We are also unconvinced that a transmission provider could accurately perform such calculations because, as explained

above, some study costs are unrelated to an individual interconnection request and are instead incurred as a matter of course as part of studying a cluster of interconnection requests.

4. Allocation of Cluster Network Upgrade Costs

a. NOPR Proposal

422. In the NOPR, the Commission proposed to require transmission providers to allocate network upgrade costs to interconnection customers within a cluster using a proportional impact method.⁸⁴⁵ The Commission also proposed to add the defined term proportional impact method to the *pro forma* LGIP and require transmission providers to revise their LGIPs to include the specific technical parameters and thresholds of their method for cost allocation. The Commission also proposed to require transmission providers to allocate the costs of transmission provider's interconnection facilities equally among all interconnection customers sharing use of the transmission provider's interconnection facilities. The Commission sought comment on: (1) whether there are specific types of analyses that the Commission should require transmission providers to use to determine the proportional impact attributed to an interconnection request, including the benefits and drawbacks of any proposed approach; (2) whether there are specific types of analyses that the Commission should prohibit because they are known to be inaccurate, provide undue discretion to the transmission provider, or could otherwise be problematic; (3) whether alternative methods to allocate the costs of network upgrades within a cluster, such as the proportional capacity method, can be sufficiently accurate in certain instances, in a manner consistent with or superior to the proposed method; and (4) whether there are some circumstances where the proportional capacity method would not be appropriate, such as circumstances where there may be potential for discriminatory treatment.⁸⁴⁶

b. Comments

i. General Comments

423. Several commenters support the proposal.⁸⁴⁷ These commenters state

⁸⁴⁵ NOPR, 179 FERC ¶ 61,194 at P 88.

⁸⁴⁶ *Id.* P 89.

⁸⁴⁷ ACORE Initial Comments at 8; Ameren Initial Comments at 12; Avangrid Initial Comments at 31; Cypress Creek Initial Comments at 19; Eversource Initial Comments at 15; Fervo Energy Initial Comments at 3; Interwest Initial Comments at 16–17; Invenery Initial Comments at 21; NEPOOL

that the proposed proportional impact cost allocation method is widely used, both by RTOs/ISOs and non-RTO/ISO transmission providers,⁸⁴⁸ and ensures that each interconnection customer contributes to the cost of network upgrades in proportion to its impact on the transmission system.⁸⁴⁹ These commenters assert that other options (such as a proportional capacity or a pro rata allocation per interconnection request) would be more likely to shift a disproportionate share of network upgrade costs to smaller generating facilities, which may have less impact on the transmission system.⁸⁵⁰ Bonneville and Interwest argue that the proportional impact method could also reduce the incentive for interconnection customers to submit multiple speculative requests and reduce the amount of cascading withdrawals and restudies.⁸⁵¹ ELCON contends that, should any one proposed generating facility in the cluster have an outsized impact on the transmission system compared to other proposed generating facilities in the cluster, those other proposed generating facilities should be protected from exorbitant network upgrade costs to accommodate a proposed generating facility that may not be suitably located.⁸⁵² CAISO adds

Initial Comments at 15; New Jersey Commission Initial Comments at 15; Northwest and Intermountain Initial Comments at 8; NYTOs Initial Comments at 16; Omaha Public Power Initial Comments at 5; Pennsylvania Commission Initial Comments at 8–9.

⁸⁴⁸ For example, several transmission providers support the Commission's proposal, and state that they already use a proportional impact method or distribution factor analysis. CAISO Initial Comments at 13; ISO-NE Initial Comments at 25; MISO Initial Comments at 46–47; NYISO Initial Comments at 14; PJM Initial Comments at 36; SoCal Edison Initial Comments at 16; Tri-State Initial Comments at 12.

⁸⁴⁹ ACORE Initial Comments at 8; Ameren Initial Comments at 12; Avangrid Initial Comments at 31; Cypress Creek Initial Comments at 19; Eversource Initial Comments at 15; Fervo Energy Initial Comments at 3; Interwest Initial Comments at 16–17; Invenery Initial Comments at 21; NEPOOL Initial Comments at 15; New Jersey Commission Initial Comments at 15; Northwest and Intermountain Initial Comments at 8; NYTOs Initial Comments at 16; Omaha Public Power Initial Comments at 5; Pennsylvania Commission Initial Comments at 8–9.

⁸⁵⁰ ACORE Initial Comments at 8; Ameren Initial Comments at 12; Avangrid Initial Comments at 31; Cypress Creek Initial Comments at 19; Eversource Initial Comments at 15; Fervo Energy Initial Comments at 3; Interwest Initial Comments at 16–17; Invenery Initial Comments at 21; NEPOOL Initial Comments at 15; New Jersey Commission Initial Comments at 15; Northwest and Intermountain Initial Comments at 8; NYTOs Initial Comments at 16; Omaha Public Power Initial Comments at 5; Pennsylvania Commission Initial Comments at 8–9.

⁸⁵¹ Bonneville Initial Comments at 10; Interwest Initial Comments at 17.

⁸⁵² ELCON Initial Comments at 9.

⁸⁴⁴ AES Initial Comments at 12; Clean Energy Associations Initial Comments at 23; National Grid Initial Comments at 17.

that it has used distribution factor analysis without controversy.⁸⁵³

424. NRECA states that it interprets this proposal to implement—and not modify, weaken, or permit deviations from—the Commission’s established policy that transmission costs, including network upgrade costs, must be allocated in a manner at least reasonably commensurate with estimated benefits.⁸⁵⁴ NRECA states that, based on that interpretation of the NOPR’s proposal, NRECA believes this method is fair to both interconnection customers and transmission providers and helps ensure that the costs to implement an interconnection request are allocated reasonably commensurate with cost causation and expected benefits. NRECA states that the proportional impact method is also reasonably transparent and relatively easy for transmission providers to implement, explain, and defend.

425. In response to the Commission’s request for comment on whether there are circumstances in which the proportional capacity method would be appropriate, some commenters argue that the proportional capacity method is never appropriate and should be expressly prohibited for clusters.⁸⁵⁵ MISO argues that network upgrade cost allocation methods that only consider installed capacity without considering the network topology do not consider the full picture of what an interconnection customer’s responsibility for the network upgrade costs should be.⁸⁵⁶ Pennsylvania Commission asserts that large generating facilities would continue to bear high network upgrade costs and would have an incentive to interconnect wisely, while small generating facilities, which are becoming the norm in interconnection queues, would not.⁸⁵⁷ Pennsylvania Commission contends that this would create a subsidy whereby large generating facilities pay a share of unnecessary network upgrade costs caused by poor siting of smaller generating facilities.⁸⁵⁸ Longroad Energy illustrates this point by noting that one of its generating facilities was recently allocated nearly \$10 million under the proportional capacity method based solely on the generating facility’s size, despite the fact that relevant

interconnection studies firmly established that its generating facility, while large, actually reduced the identified overload.⁸⁵⁹

426. NV Energy urges the Commission to reconsider the application of pro rata allocation of network upgrade costs over using the proportional impact method.⁸⁶⁰ NV Energy contends that the proportional impact method could negatively impact interconnection customers due to the time and risk of reallocations required by restudies.⁸⁶¹ NV Energy argues that assigned network upgrade costs could change dramatically if a cluster participant withdraws from the interconnection queue and requires a restudy, potentially resulting in each participant’s cost allocation changing.⁸⁶² NV Energy asserts that in addition to disintegrating cost reassurance for the interconnection customer, performing studies using the proportional impact method defeats the purpose of completing cluster studies where each interconnection customer in the cluster has the same interconnection queue position and that this method will require the transmission provider to review each interconnection request within the cluster individually to assign the proportional impact.

427. NV Energy contends that using the proportional impact method to allocate the costs of network upgrades resulting from cluster studies will be burdensome in application because of the volume of interconnection requests being studied and the large number of network upgrades identified in each study.⁸⁶³ NV Energy states that, under a proportional capacity method, when an interconnection customer withdraws and the same network upgrades are deemed necessary, the transmission provider could simply reallocate a pro rata share to the remaining interconnection customers and expedite the study; however, in the case of the proportional impact method, the transmission provider would need to complete a full restudy to review each generating facility’s impact on the system.

428. According to NV Energy, this issue is further exacerbated when a network upgrade becomes a shared network upgrade with another cluster and the proportional impact is expanded to include additional interconnection customers.⁸⁶⁴ NV

Energy states that, not only would the restudy be required for the lower-queued cluster based on the withdrawal, but also the concurrently queued cluster to modify the network upgrade cost allocation. NV Energy also argues that, without a consistent proportional impact cost allocation amongst transmission providers, there is risk that this could lead to disputes at the Commission from interconnection customers, which would lead to increased costs and delays.

429. PacifiCorp strongly opposes the proportional impact method to allocate network upgrade costs.⁸⁶⁵ PacifiCorp argues that the Commission has not made a transmission provider-specific finding that the proportional capacity method, approved for PacifiCorp by the Commission in May 2020,⁸⁶⁶ is no longer just and reasonable. PacifiCorp contends that transmission providers should be permitted to use proportional capacity-based network upgrade cost allocation methods.⁸⁶⁷ PacifiCorp claims that the proportional capacity method it uses is informed by three additional mechanisms within the cluster study process, all of which work in tandem to ensure that costs are appropriately allocated: (1) the use of electrically or geographically relevant subregions; (2) iterative studies that consider ERI network upgrades prior to NRIS requests; and (3) a floor of 1% of total MW within a cluster, under which interconnection requests will be deemed not to contribute to the network upgrades identified in the cluster study.⁸⁶⁸

430. PacifiCorp states that the proportional capacity method also assists it in completing cluster studies and restudies on a timely basis, and minimizes disputes.⁸⁶⁹ PacifiCorp argues that, in sharp contrast, the proportional impact method involves a complex analysis that, in addition to being excessively time consuming, will result in disputes, both of which will put substantial pressure on PacifiCorp’s ability to meet study deadlines.⁸⁷⁰ Therefore, according to PacifiCorp, requiring use of the proportional impact method will be counterproductive to the Commission’s intent of making processing of interconnection requests more efficient.

431. PacifiCorp explains that the degree of contribution to a needed network upgrade can be very difficult to

⁸⁵³ CAISO Initial Comments at 13.

⁸⁵⁴ NRECA Initial Comments at 22.

⁸⁵⁵ Longroad Energy Initial Comments at 9; MISO Initial Comments at 45–46; NRECA Initial Comments at 22; Pennsylvania Commission Initial Comments at 9.

⁸⁵⁶ MISO Initial Comments at 45–46.

⁸⁵⁷ Pennsylvania Commission Initial Comments at 9.

⁸⁵⁸ *Id.*; see also NRECA Initial Comments at 22.

⁸⁵⁹ Longroad Energy Initial Comments at 9.

⁸⁶⁰ NV Energy Initial Comments at 12.

⁸⁶¹ *Id.*; PacifiCorp Reply Comments at 3.

⁸⁶² NV Energy Initial Comments at 12.

⁸⁶³ *Id.*

⁸⁶⁴ *Id.* at 13.

⁸⁶⁵ PacifiCorp Initial Comments at 23.

⁸⁶⁶ *PacifiCorp*, 171 FERC ¶ 61,112 (2020).

⁸⁶⁷ PacifiCorp Initial Comments at 22, 26.

⁸⁶⁸ *Id.* at 23–24.

⁸⁶⁹ *Id.*; PacifiCorp Reply Comments at 2.

⁸⁷⁰ PacifiCorp Initial Comments at 24–25.

determine depending on the size, number of interconnection requests, and location of proposed generating facilities in a cluster.⁸⁷¹ PacifiCorp adds that a proportional impact method analysis is complicated further by the fact that all interconnection requests within a single cluster are considered equally queued. In addition, PacifiCorp argues that, given the size of its multi-state system and the thousands of MWs of interconnection requests entering the cluster study process each year,⁸⁷² it is simply not possible to both perform a proportional impact method analysis on each interconnection request and complete the cluster study process within 150 calendar days.⁸⁷³

ii. Comments on Specific Proposal

(a) Specificity Regarding Technical Parameters and Thresholds

432. Several commenters state that, if the Commission adopts its proposal for each transmission provider to revise its tariff to include its specific technical parameters and thresholds for the proportional impact method for network upgrade cost allocation, the Commission should at least consider guidance or principles for those technical parameters and thresholds.⁸⁷⁴ The same commenters ask that the Commission also require sufficient specificity to provide transparency and certainty for potential interconnection customers and to avoid disputes over cost allocation.

433. EPSA and Vistra argue that the Commission should provide an opportunity for comments prior to moving to a final rule with more detailed parameters.⁸⁷⁵ Vistra contends that without such an opportunity, the Commission will have not provided sufficient notice.⁸⁷⁶ Vistra argues that adopting a final rule that contains only the very high-level requirement to allocate costs based on proportional impact method simply defers the Commission's determination on important implementation details to litigation over the individual compliance filings that will be submitted. Without sufficient detail, Vistra continues, the Commission will arguably need to accept any set of

technical details as in compliance with the requirement to allocate network upgrade costs based on proportional impact.

434. PPL states that the NOPR did not address the allocation of network upgrade costs within a cluster after an interconnection customer withdraws.⁸⁷⁷ PPL states that, prior to the execution of an interconnection agreement by the interconnection customer(s), the Commission should provide that any interconnection facility and network upgrade costs previously allocated to the withdrawing interconnection customer be reallocated among the remaining interconnection customers in the cluster to prevent delays and allow the study process to proceed. PPL states that the Commission should allow for withdrawal to be treated as an event that allows the transmission provider to retain or call on the security provided by the withdrawing interconnection customer. PPL adds that the Commission should allow for an increase in the cost allocated to remaining interconnection customers in a cluster to account for the amount previously allocated to the withdrawing interconnection customer.

(b) Tariff Requirement for Technical Details

435. PJM states that, while it generally supports the requirement to describe the cost allocation method in the applicable tariff, the Commission should clarify that transmission providers may provide the detailed and specific technical information in business practice manuals rather than in tariffs.⁸⁷⁸ PJM states that these types of implementation details change from time to time and, consistent with Commission precedent, are appropriately addressed in the transmission provider's manuals. PJM asserts that mandating that these procedures be placed in the transmission provider's tariff, on the other hand, would require a transmission provider to submit an FPA section 205 filing every time the implementation details changed, which would be inefficient and burdensome.

436. In contrast, other commenters argue that these thresholds, and any associated procedures, should be codified in transmission providers' tariffs.⁸⁷⁹ AES explains that the thresholds used as part of the proportional impact method are important planning criteria, and

constitute "practices that affect rates and services significantly, that are realistically susceptible of specification and that are not so generally understood as to render recitation superfluous;" accordingly, AES continues, they should be included in transmission providers' filed rates, and subject to review and approval by the Commission pursuant to section 205 of the FPA.⁸⁸⁰ Union of Concerned Scientists contends that the combination of issues that are expressed through network upgrade decisions and cost allocations for interconnection customers are arguably central to this rulemaking and the fulfillment of the competition amongst interconnection customers as a regulatory approach to setting wholesale energy prices and must be subject to notice and review, both initially and for any subsequent changes, through filings with the Commission.⁸⁸¹

437. Xcel states that the Commission should make clear that there are several just and reasonable approaches to allocating network upgrade costs to interconnection customers within a cluster.⁸⁸² For example, states Xcel, if two generating facilities are connecting to a new a transmission line, a substation must be constructed. Xcel explains that, using some analysis, a larger generating facility might be considered to have a larger impact, but the respective size of the interconnection request did not have any impact on the cost or size of the substation needed. Xcel states that, for example, the cost of the substation is not different for a 100 MW and 500 MW generating facility or for two 300 MW generating facilities if they are interconnecting at the same voltage, and as a result, the cost of that substation should be allocated equally to both generating facilities. Xcel states that there could be a third generating facility (not directly connected to the substation) from which the power flows through the new substation, but it is not clear if the Commission is proposing that the interconnection customer proposing that third generating facility pays for a portion of the substation costs because its flows "impact" the substation. Xcel states that it does not generally support allocating network upgrade costs to interconnection customers simply because their proposed generating facilities have a flow impact if they are not causing the

⁸⁷¹ *Id.* at 25.

⁸⁷² PacifiCorp states that during the most recent cluster study, which commenced in May 2022, PacifiCorp received around 40 GW-worth of interconnection requests, which is more than three times PacifiCorp's peak system load.

⁸⁷³ PacifiCorp Initial Comments at 25.

⁸⁷⁴ Clean Energy Buyers Initial Comments at 9; Cypress Creek Initial Comments at 19; Invenenergy Initial Comments at 21.

⁸⁷⁵ EPSA Initial Comments at 8; Vistra Initial Comments at 12–13.

⁸⁷⁶ Vistra Initial Comments at 13.

⁸⁷⁷ PPL Initial Comments at 14.

⁸⁷⁸ PJM Initial Comments at 37.

⁸⁷⁹ AES Initial Comments at 8; Union of Concerned Scientists Reply Comments at 20.

⁸⁸⁰ AES Initial Comments at 8 (citing *Pub. Serv. Co. of Colo.*, 67 FERC ¶ 61,371, at 62,267 (1994); *Portland Gen. Elec. Co.*, 144 FERC ¶ 61,087 (2013)).

⁸⁸¹ Union of Concerned Scientists Reply Comments at 20–21.

⁸⁸² Xcel Initial Comments at 26.

need for the network upgrade under a “but for” evaluation.

438. Invenergy states that, in the occasional circumstance where a point of interconnection is shared among more than one interconnection request within a cluster, which could involve new equipment that does not vary based on proportional impact, the associated costs at the point of interconnection (e.g., the substation) could be allocated on a pro rata basis.⁸⁸³ PacifiCorp states that the proportional impact method would not be necessary to account for costs that are agnostic to interconnection customer impacts, such as the need to construct a new substation to connect to a new transmission line regardless of whether one or several generating facilities are interconnecting.⁸⁸⁴

439. Invenergy states that the NOPR could be read to permit each transmission provider to adopt different and possibly inconsistent analyses and that the Commission should be clear that it is requiring a proportional impact method for allocating network upgrade costs, just as the NOPR proposes to do with respect to shared network upgrades.⁸⁸⁵

440. Several commenters state that the final rule should require transmission providers to submit compliance filings that propose minimum distribution factor thresholds that will be used to evaluate NRIS and ERIS requests.⁸⁸⁶

(c) Requests for Flexibility

441. Some commenters support the proportional capacity method only for certain network upgrades or limited circumstances.

442. Tri-State states that it does not apply a proportional impact method to transient-stability-driven network upgrades, which cannot be measured using a proportional impact approach; rather, Tri-State uses a MW pro rata method approach when allocating the costs of transient-stability-driven network upgrades.⁸⁸⁷ Longroad Energy states that, to the extent the Commission allows a transmission provider to use some method other than a flow-based

proportional impact allocation for transient stability constraints, the transmission provider should be required to demonstrate that the alternative cost allocation method is based on sound engineering principles for the specific transient stability constraint observed in the studies.⁸⁸⁸

443. R Street states that allocating network upgrade costs based on proportional capacity is appropriate in situations where clusters are composed of similar types of generation.⁸⁸⁹ R Street asserts that the default should be that all thermal network upgrade cost allocations are based on proportional capacity. R Street states that this leaves open the possibility for transmission providers to allocate other types of network upgrade costs (voltage, transient stability, short circuit) using a different but predefined method.

444. Several commenters ask the Commission to provide flexibility for transmission providers to establish a cost allocation method for network upgrades, rather than mandating a prescriptive approach.⁸⁹⁰ PPL claims that such region-specific cost allocations are necessary to keep disputes from overwhelming the reform process the Commission anticipates.⁸⁹¹ New York State Department asserts that any strict or limiting requirement for a specific cost allocation method may undermine and replace existing processes that work well.⁸⁹² National Grid recommends that the Commission allow for consideration of the unique circumstances of a region, input from relevant stakeholders in the region, including the potential for regions to propose cost allocation methods that allow for broader allocation to load or transmission customers in addition to interconnection customers.⁸⁹³

445. Dominion points out that courts and the Commission have long recognized that there is not one single just and reasonable method for establishing cost allocation.⁸⁹⁴ Dominion states that rather, cost allocation proposals are reviewed to

determine whether they meet certain principles, chiefly that costs are allocated in a manner that is at least “roughly commensurate” with estimated benefits received.⁸⁹⁵ Accordingly, Dominion recommends that if the Commission imposes any requirements related to cost allocation, it simply retains a general definition of proportional impact method and is not overly prescriptive.⁸⁹⁶

iii. Requests for Clarification or Technical Conference

446. Pattern Energy generally supports the application of the proportional impact method, subject to clarification on which form of distribution factor analysis the Commission is contemplating.⁸⁹⁷ Pattern Energy states that there are two types of distribution factors used to determine the impact of given power injection flows over a monitored facility: (1) power transfer distribution factor, which is the percentage of power that will flow on a specific monitored facility and does not consider outage/contingent facilities; and (2) outage transfer distribution factor, which is the percentage of power that will flow on a specific facility that does consider outage/contingent facilities. Pattern Energy states that the difference between the two distribution factors (i.e., the consideration of the outage/contingent facility) is important because power transfer distribution factor is usually more relevant for evaluating “local impacts” (e.g., generating facilities that are connecting in very close electrical proximity to a given monitored element), compared to outage transfer distribution factor, which captures impacts that may be more geographically and electrically distant from a given monitored facility. Pattern Energy asserts that the Commission should require outage transfer distribution factor to be the required distribution factor utilized in the proportional impact method for identifying impacts to constrained facilities and resultant cost allocation for network upgrades. Pattern Energy argues that outage transfer distribution factor is a better measure of power flows on the bulk-power system, and, in turn, its use ensures that impacts to constrained facilities are properly mitigated by, and cost allocated to, the actual, full set of contributors and not just the nearby highest contributors.

447. Pine Gate contends that certain proposed enhancements to the NOPR

⁸⁸³ Invenergy Initial Comments at 21–22.

⁸⁸⁴ PacifiCorp Reply Comments at 2 (citing Xcel Initial Comments at 26 (describing how a proportional impact analysis is not necessary to allocate costs for a new station connecting to a transmission line, as “[t]he cost of the station is not different for a 100 MW and 500 MW generator or for two 300 MW generators if they are interconnecting at the same voltage”).

⁸⁸⁵ Invenergy Initial Comments at 21.

⁸⁸⁶ AEE Reply Comments at 10; AES Initial Comments at 8; Longroad Energy Initial Comments at 9; SEIA Initial Comments at 11.

⁸⁸⁷ PacifiCorp Reply Comments at 2; Tri-State Initial Comments at 12.

⁸⁸⁸ Longroad Energy Initial Comments at 9.

⁸⁸⁹ R Street Initial Comments at 12.

⁸⁹⁰ AES Initial Comments at 7; APPA–LPPC Initial Comments at 16; Bonneville Initial Comments at 10; Dominion Initial Comments at 19; Indicated PJM TOs Initial Comments at 20; ISO–NE Initial Comments at 25; MISO Initial Comments at 45; National Grid Initial Comments at 8; NEPOOL Initial Comments at 15; New York State Department Initial Comments at 8; NYISO Initial Comments at 15; PPL Initial Comments at 14.

⁸⁹¹ PPL Initial Comments at 14.

⁸⁹² New York State Department Initial Comments at 8–9.

⁸⁹³ National Grid Initial Comments at 18.

⁸⁹⁴ Dominion Initial Comments at 19, 21 (citing *Entergy La., Inc. v. La. Pub. Serv. Comm’n*, 539 U.S. 39, 50 (2003)).

⁸⁹⁵ *Id.* at 19.

⁸⁹⁶ *Id.* at 22.

⁸⁹⁷ Pattern Energy Initial Comments at 11–12.

proposal would provide much needed certainty to interconnection customers and mitigate the systematic problem of interconnection queues being the primary mechanism by which needed transmission infrastructure is identified, developed, and constructed.⁸⁹⁸ Specifically, Pine Gate requests that the Commission make the following clarifications: (1) transmission providers are not permitted to allocate to interconnection customers network upgrade costs associated with preexisting operating conditions (such as overloads); (2) transmission providers are not permitted to allocate network upgrade costs to interconnection customers for loading that results from the simulation of conditions that do not reflect typical operating conditions; (3) transmission providers are required to use consistent, uniform thresholds to measure the impact on a specific transmission facility caused by an interconnection request and publish these thresholds, along with the corresponding scope of the resulting network upgrades; and (4) establish a 4% impact threshold for NRIS and a 20% impact threshold for ERIS, unless there is preexisting loading on the facility.⁸⁹⁹ Pine Gate further requests that the Commission provide transmission providers guidance on the scope of the network upgrade required to accommodate an interconnection request. Pine Gate states that, if a network upgrade benefits other types of customers, interconnection customers should receive transmission credits or other compensation if the additional transmission capacity created is used for market dispatch or by wholesale transmission customers.⁹⁰⁰ Pine Gate states that, if the Commission does not adopt Pine Gate's proposed enhancements as part of a final rule in this proceeding, then the Commission should establish a technical conference to explore these issues.

iv. Miscellaneous

448. Pennsylvania Commission states that limiting the scope of each cluster to those interconnection customers most likely to share the same network upgrades may reduce the need for the proportional impact network upgrade cost allocation method.⁹⁰¹ According to Pennsylvania Commission, instead of determining the degree to which interconnection requests cause specific network upgrades on the back end

through cost allocation, clustering by electrical relevance may accomplish the same goal, making sure that interconnection customers are sharing the costs of network upgrades that they cause and from which they benefit. Pennsylvania Commission contends that the Commission should examine whether limiting the scope of a cluster or cost allocation, or a combination of both, is the best method to share costs among interconnection customers causing the same network upgrades.

449. Several commenters state that the NOPR leaves unresolved the fundamental question of more equitably sharing network upgrade costs across all beneficiaries, including load.⁹⁰² They argue, for example, that policies requiring interconnection customers to pay for 100% of network upgrade costs when the benefits of those upgrades are distributed among other system users (*i.e.*, participant funding) causes interconnection customers to pay more than their appropriate share of the costs.⁹⁰³ In contrast, Ameren claims that it is appropriate for interconnection customers to bear responsibility for the cost of network upgrades required for their interconnection requests.⁹⁰⁴ Ameren argues that, to ensure the full costs of interconnection are identified and allocated, network upgrade costs associated with affected systems must also be included in cluster network upgrade cost allocation, and interconnection customers should be required to accept the assigned costs. Ohio Commission Consumer Advocate emphasizes that the Commission should not change the participant funding mechanisms in RTO/ISO markets,⁹⁰⁵ while PPL argues that the Commission should allow non-RTO/ISO transmission providers the option to propose allocating the costs of network upgrades to interconnection customers without credits as RTOs/ISOs do.⁹⁰⁶

450. New York State Department and Shell argue that the Commission should discontinue the historical practice of allowing interconnection customers essentially free use of headroom on

ratepayer-funded network facilities.⁹⁰⁷ New York State Department states that this occurs when transmission ratepayers fund upgrades to the transmission system that create headroom, from which interconnection customers later benefit without having to pay for access or use.⁹⁰⁸ In contrast, Invenergy asserts that the Commission needs to ensure that the transmission planning and interconnection models are consistent, so that interconnection customers are not required to pay for the cost of resolving overloads and other transmission system issues that exist without the proposed interconnection.⁹⁰⁹

451. AEE encourages the Commission to ensure that its proposal increases cost transparency and establishes a pathway for interconnection customers to access accurate information about their network upgrade costs in a timely manner.⁹¹⁰ For instance, AEE asks that the Commission also provide guidance regarding which party must pay if network upgrade costs significantly exceed estimates. AEE states that one approach to minimizing the construction time and cost of network upgrades, and consequently the interconnection process as a whole, is to provide a third-party construction option in the *pro forma* LGIA that would allow the interconnection customer to elect for stand alone network upgrades to be bid out and potentially built by third parties.⁹¹¹

452. Pine Gate recommends that the Commission require transmission providers to analyze more holistically the other underlying needs driving identified network upgrades to the transmission system.⁹¹² Pine Gate states that the Commission should require transmission providers to only allocate to interconnection customers the costs associated with accelerating the construction of the upgrade to accommodate the interconnection customer's anticipated commercial operation date.⁹¹³

c. Commission Determination

453. We adopt the NOPR proposal, with modifications, to add new proposed section 4.2.3, now section 4.2.1, to the *pro forma* LGIP to require transmission providers to allocate

⁸⁹⁸ Pine Gate Initial Comments at 16–17.

⁸⁹⁹ *Id.* at 18–19.

⁹⁰⁰ *Id.* at 20.

⁹⁰¹ Pennsylvania Commission Initial Comments at 9.

⁹⁰² ACORE Initial Comments at 8–9; AEE Initial Comments at 14–15; Interwest Initial Comments at 5; Northwest and Intermountain Initial Comments at 8; Public Interest Organizations Initial Comments at 31–33.

⁹⁰³ AEE Initial Comments at 14 (citing Joint Supplemental Comments of American Clean Power Association, Advanced Energy Economy, and Solar Energy Industries Association, Docket No. RM21–17–000, at 7–8 (filed June 1, 2022)).

⁹⁰⁴ Ameren Initial Comments at 12.

⁹⁰⁵ Ohio Commission Consumer Advocate Initial Comments at 9.

⁹⁰⁶ PPL Initial Comments at 13.

⁹⁰⁷ New York State Department Initial Comments at 9; Shell Reply Comments at 27–28.

⁹⁰⁸ New York State Department Initial Comments at 9.

⁹⁰⁹ Invenergy Initial Comments at 21.

⁹¹⁰ AEE Initial Comments at 15.

⁹¹¹ *Id.* at 15–16 (citing Comments of AEE, Docket No. RM21–17–000, at 47–49 (filed Oct. 12, 2021)).

⁹¹² Pine Gate Initial Comments at 17.

⁹¹³ *Id.*; Fervo Energy Reply Comments at 5.

network upgrade costs based on a proportional impact method.⁹¹⁴ Based on the record, we modify the NOPR proposal and add definitions for substation network upgrades and system network upgrades in the *pro forma* LGIP and *pro forma* LGIA. In addition, we modify the definitions of proportional impact method and stand alone network upgrades proposed in the NOPR. We also modify proposed section 4.2.1 of the *pro forma* LGIP to require transmission providers to allocate the costs of network upgrades located at substations equally among each generating facility interconnecting to the same substation (*i.e.*, on a per capita basis), and to revise the information that a transmission provider's tariff must include regarding the proportional impact method.

454. We also modify the requirement in proposed section 4.2.1 of the *pro forma* LGIP for transmission providers to directly assign the cost of shared transmission provider's interconnection facilities to interconnection customers on a per capita basis (*i.e.*, on a per generating facility basis). Specifically, we modify proposed section 4.2.1 of the *pro forma* LGIP to make the new provisions applicable to the interconnection customer's interconnection facilities as well as to the transmission provider's interconnection facilities. We also modify this section to provide that interconnection customers may agree to share interconnection facilities, and that the per capita allocation will apply only where interconnection customers agree to share interconnection facilities. We also modify this section to allow the interconnection customers that share interconnection facilities to choose a different cost sharing arrangement upon mutual agreement.

455. We find that adopting the modified NOPR proposal will ensure just and reasonable rates as transmission providers transition to the cluster study process required by this final rule. We find that the cost allocation method adopted herein will allow transmission providers to allocate network upgrade costs among several interconnection customers that may benefit from (and cause the need for) certain network upgrades. We also find that allocating shared network upgrade costs among a cluster of interconnection customers will reduce the frequency of an individual interconnection customer

being allocated the costs of a large network upgrade that benefits subsequent interconnection customers; reduce the incentive of interconnection customers to submit multiple speculative interconnection requests to avoid shouldering the cost of large network upgrades that may be triggered by a single interconnection customer in the existing serial study process; and reduce the number of cascading withdrawals and restudies, thereby improving the efficiency of the interconnection process and reducing interconnection queue processing delays.

456. We conclude that a proportional impact method appropriately reflects the Commission's interconnection pricing policy for facilities designated as network upgrades needed for the interconnection of the cluster. However, we are persuaded to adopt a different cost allocation method for substations at the point of interconnection that are designated as network upgrades and needed only to facilitate the interconnection of certain generating facilities within the cluster seeking interconnection to the specific substation, as demonstrated by commenters.⁹¹⁵

457. In Order No. 2003, the Commission reasoned that "it is appropriate for the Interconnection Customer to pay the initial full cost for Interconnection Facilities and Network Upgrades that would not be needed but for the interconnection" (*i.e.*, "but for" policy).⁹¹⁶ Hence, under the serial study process in the existing *pro forma* LGIP, the transmission provider allocates network upgrade costs by assigning the initial full cost responsibility for all network upgrades identified in a study to a single interconnection customer that causes those upgrades. However, in transitioning to a cluster study process in this final rule, the Commission must establish a method for allocating network upgrade costs among all interconnection customers within a cluster. Based on the record in this proceeding, we find that a proportional impact method is the appropriate application of the Commission's interconnection pricing policy when allocating the costs of network upgrades needed for an entire cluster of proposed generating facilities because a proportional impact method allows transmission providers to assess a

generating facility's individual contribution to the need for the network upgrades identified for the cluster. However, the need for substation network upgrades is only generated by a specific generating facility seeking interconnection at a specific substation and not by all the generating facilities in the cluster. It would be inconsistent with the Commission's interconnection pricing policy to allocate the costs of the substation network upgrades to interconnection customers in the cluster that are interconnecting at other substations because, in the case of a cluster of new interconnection requests, only the generating facilities interconnecting to the same substation generate the need for network upgrades at that substation.

458. As explained above, the cost of substation network upgrades must be initially allocated only to those interconnection customers seeking to interconnect at the same substation,⁹¹⁷ while the cost of system network upgrades for all interconnection customers in a cluster must be initially allocated based on the technical analyses to be specified under the transmission provider's proportional impact method. To facilitate these differing cost allocation methods, we modify the definitions in section 1 of the *pro forma* LGIP and article 1 of the *pro forma* LGIA to distinguish substation network upgrades (including all switching stations)⁹¹⁸ from system network upgrades.⁹¹⁹ Using these definitions, we further modify the *pro forma* LGIP and *pro forma* LGIA to draw this distinction and to ensure that the costs for the two types of network upgrades are allocated consistent with the Commission's interconnection pricing policy, which establishes the principles for allocating the costs of network upgrades.

459. We note that we are not modifying the *pro forma* LGIP's definition of facilities needed beyond the point of interconnection as network upgrades; rather, we are providing greater specificity with regard to how the costs of the two distinct types of network upgrades identified within a

⁹¹⁷ For clarity, we note that we are referring to the transmission provider's substation immediately beyond the point of interconnection as defined in section 1 of the *pro forma* LGIP: "Point of Interconnection shall mean the point . . . where the interconnection facilities connect to the transmission provider's transmission system." *Pro forma* LGIP section 1 (Definitions).

⁹¹⁸ Substation network upgrades shall mean the network upgrades required at the substation located at the point of interconnection.

⁹¹⁹ System network upgrades shall mean the network upgrades required beyond the substation located at the point of interconnection.

⁹¹⁴ "Proportional Impact Method shall mean a technical analysis conducted by Transmission Provider to determine the degree to which each Generating Facility in the Cluster Study contributes to the need for a specific System Network Upgrade." *Pro forma* LGIP section 1.

⁹¹⁵ Xcel Initial Comments at 26; Invenenergy Initial Comments at 21–22.

⁹¹⁶ See *id.* P 694; *Nev. Power Co.*, 182 FERC ¶ 61,048, at PP 50–51 (2023) (describing the cost allocation requirements for network upgrades as the Commission's Order No. 2003 "but for requirements").

cluster study should be initially allocated. We find that this approach will also lead to greater transparency and ease of administering the cluster study process by establishing distinct guidelines for how the costs of the two types of network upgrades will be initially allocated within a cluster. Also, as commenters note, in instances where a point of interconnection is shared among more than one interconnection request within a cluster, the cost of the substation network upgrades is more directly impacted by the number of generating facilities proposing to interconnect there because the cost of the equipment used to interconnect generating facilities to substations does not vary based on the electrical characteristics of the interconnecting generating facilities (e.g., the MW size of the generating facility, fuel type, or services provided).

460. To further implement this modification of the NOPR proposal, we modify the definition of stand alone network upgrades proposed in the NOPR to recognize that (1) a substation network upgrade may only be considered a stand alone network upgrade if it is needed to interconnect only one generating facility in the cluster and no other interconnection customer in that cluster is required to interconnect to the same substation network upgrades, and (2) the proportional impact analysis will be used in determining whether a system network upgrade is only needed for one generating facility in the cluster and can be considered a stand alone network upgrade. Our revisions also seek to prevent lengthy disputes over which interconnection customer has the right to exercise the option to build in instances where a network upgrade could qualify under the existing definition of a stand alone network upgrade, but the network upgrade is needed for multiple interconnection customers' generating facilities.

461. Several commenters request that the Commission provide more specificity and guidance regarding the specific thresholds and metrics that transmission providers are expected to submit on compliance.⁹²⁰ In this final rule, we modify the proposed requirement in *pro forma* LGIP section 4.2.1 for transmission providers to revise their LGIPs on compliance to include specific thresholds and metrics. Instead, we direct transmission providers on compliance to provide

tariff provisions that describe, for each type of system network upgrade that a transmission provider would identify in the cluster study process (e.g., voltage support network upgrades or short circuit network upgrades), how the costs of each system network upgrade type will be allocated among the interconnection customers within the cluster. Transmission providers' revisions on compliance must provide that costs for a discrete network upgrade identified in the cluster study process (e.g., reconductoring a portion of a transmission line to accommodate the interconnection of several generating facilities in the cluster) are allocated to only the interconnection customers in the cluster that are shown through technical analyses to contribute to the need for the discrete network upgrade. For example, the transmission provider must propose tariff provisions similar to the following: (1) voltage support related network upgrades shall be allocated using a voltage impact analysis, which will identify each generating facility's contribution to the voltage violation; (2) short circuit network upgrade costs within a cluster will be allocated based on the impact from each generating facility within the cluster, on the constrained facilities under the most constraining fault in the relevant study case(s); or (3) the estimated costs of short circuit related general reliability network upgrades identified through a cluster study shall be assigned to all interconnection requests in that group study pro rata on the basis of the short circuit duty contribution of each generating facility.

462. PJM requests that the Commission clarify that transmission providers may provide the detailed and specific technical information in business practice manuals rather than in tariffs.⁹²¹ In response, we find that, as noted above, transmission providers must provide tariff provisions that describe the method they will use for allocating costs of each type of network upgrade, but specific metrics and thresholds for implementing the allocation, or other specific technical information, may be included in business practice manuals, or publicly posted on the transmission provider's website. We agree with PJM that such details are appropriate for business practice manuals, consistent with Commission precedent applying the "rule of reason" to determine whether a detail should be included in a tariff or business practice manual. In particular, the technical information surrounding implementation of the proportional

impact method by a particular transmission provider does not need to be included in the transmission provider's tariff under the rule of reason because these provisions are properly classified as implementation details that do not significantly affect rates, terms, and conditions of service.⁹²²

463. Several commenters request that the Commission direct transmission providers to use a specific type of proportional impact method or distribution factor analysis and apply minimum distribution factor thresholds that will be used to evaluate NRIS and ERIS requests.⁹²³ We are unpersuaded that such level of prescription is needed to ensure just, reasonable, and not unduly discriminatory or preferential rates. Instead, we believe that flexibility for transmission providers to develop such details as part of their compliance filings—and in their business practice manuals, where consistent with the rule of reason, as discussed above—is important to ensure that the proportional impact method used by each transmission provider reflects the characteristics of its region (e.g., types of network upgrade facilities identified in the region, or preferred analyses in the region for determining the share of the need for the specific network upgrade type). For the same reason, we decline to require transmission providers to use consistent, uniform thresholds to measure impact, as requested by Pine Gate.⁹²⁴

464. Based on the record, we decline to require transmission providers to use the proportional capacity method to allocate the costs of all system network upgrades, given our decision to instead opt for the proportional impact method and because it reflects the Commission's interconnection pricing policy for facilities designated as network upgrades needed for the interconnection of the cluster. Nonetheless, we recognize that there may be a tradeoff between simplicity and accuracy when considering proportional capacity versus proportional impact for cost allocation for network upgrades. While we require transmission providers to allocate network upgrade costs based on a proportional impact method based on the record in this final rule, we

⁹²² See, e.g., *N.Y. Indep. Sys. Operator, Inc.*, 179 FERC ¶ 61,102, at PP 105–114 (2022) (citing, *inter alia*, *Energy Storage Ass'n v. PJM Interconnection, L.L.C.*, 162 FERC ¶ 61,296, at P 103 (2018); *City of Cleveland v. FERC*, 773 F.2d, 1368, 1376–77 (D.C. Cir. 1985)).

⁹²³ AEE Reply Comments at 10; AES Initial Comments at 8; Invenery Initial Comments at 21; Longroad Energy Initial Comments at 9; Pattern Energy Initial Comments at 11–12; Pine Gate Initial Comments at 16–19; SEIA Initial Comments at 11.

⁹²⁴ Pine Gate Initial Comments at 19.

⁹²⁰ Clean Energy Buyers Initial Comments at 9; Cypress Creek Initial Comments at 19; EPSA Initial Comments at 8; Invenery Initial Comments at 21; Vistra Initial Comments at 12–13.

⁹²¹ PJM Initial Comments at 37.

acknowledge that other allocation methods could potentially meet the consistent with or superior to standard or the independent entity variation standard if, among other things, they allocate network upgrade costs in a manner consistent with the Commission's interconnection pricing policy.

465. We disagree with NV Energy and PacifiCorp's arguments that the proportional impact method carries unmanageable time, restudy, and reallocation risks.⁹²⁵ In response to concerns about restudy risk resulting from withdrawals, we note that the Commission's new cluster study process requires transmission providers to complete the process within 150 calendar days, which we believe is sufficiently long for transmission providers to be able to conduct the rounds of restudy and reallocation that are needed to achieve a stable interconnection queue and reduce the risk of further withdrawals before moving to the individual facilities studies. Further, the proportional impact method is currently used by most transmission providers that conduct cluster studies, and several of these transmission providers have adopted study timelines similar to what we adopt in this final rule.⁹²⁶

466. We disagree with claims from NV Energy and PacifiCorp that the proportional impact method must be conducted as if it were a serial study in that each interconnection request must be studied individually. When proposing a proportional impact method on compliance, transmission providers have many methods to choose from and should adopt a method that allows them to meet the timelines designated in the cluster study process. In response to PPL,⁹²⁷ we confirm that within the cluster study process, any network upgrade costs previously allocated to a withdrawing interconnection customer that are still required after the withdrawal may be reallocated among the remaining interconnection customers in the cluster based on the relevant cost allocation method applied to the network upgrade facility type.

467. Finally, several commenters suggest alternative reforms to the Commission's network upgrade cost allocation policies: (1) limit the use of

cluster areas as an alternative to the proposed cost allocation method within a cluster;⁹²⁸ (2) change the interconnection pricing policy or participant funding regime (as allowed in certain RTOs/ISOs) to limit participant funding and/or require assessment of whether transmission customers benefit from and should pay for network upgrades;⁹²⁹ (3) establish a process to eliminate the use of headroom on network transmission facilities;⁹³⁰ and/or (4) provide a third-party construction option.⁹³¹ We find these requests to be outside the scope of this proceeding and lacking in record support to adequately consider whether to adopt them in this final rule.

5. Shared Network Upgrades

a. NOPR Proposal

468. In the NOPR, the Commission preliminarily found that the absence of network upgrade cost sharing provisions in the *pro forma* LGIP may pose a barrier to entry to generation development.⁹³² The Commission stated that absent cost sharing provisions among clusters, interconnection customers may significantly benefit from earlier-in-time network upgrades but not share in the cost of those network upgrades in a manner that is roughly commensurate with benefits. The Commission therefore proposed to require transmission providers to allocate the costs of network upgrades between interconnection customers in an earlier cluster and interconnection customers in a subsequent cluster that benefit from the same network upgrade in a manner that is roughly commensurate with the benefits received.⁹³³ Specifically, the Commission proposed that when the transmission provider analyzes the network upgrades identified through its cluster study process, if a generating facility of an interconnection customer in a later cluster directly connects either to (1) a network upgrade in service for less than five years or (2) a substation where the network upgrade in service for less than five years terminates, then the transmission provider would be required to designate the network

upgrade a shared network upgrade. Upon such a designation, the interconnection customer in the later cluster would be required to contribute a pro rata portion of the shared network upgrade's remaining undepreciated capital cost based on the impact the interconnection customer in the later cluster has on the network upgrade, as measured using the same method the transmission provider used to determine the impact of the interconnection customer(s) in the earlier cluster.

469. The Commission proposed that if the new generating facility does not directly connect to the network upgrade, then the transmission provider would perform a power flow analysis with a two-step test to measure the lower-queued interconnection customer's use of and benefit from the network upgrade funded by interconnection customers from an earlier cluster. Under the first step, the transmission provider would determine if the impact of the interconnection customer in the later cluster exceeds five MW and exceeds one percent of the network upgrade's rating. Then, if those criteria are met, the transmission provider would determine if the lower-queued interconnection customer's impact either exceeds more than 5% of the network upgrade's facility rating or if the transmission distribution factor is greater than 20%. Finally, if either of these criteria were met, the transmission provider would be required to designate that network upgrade a shared network upgrade, and the interconnection customer in the later cluster would be responsible for a pro rata share of the network upgrade's remaining undepreciated capital cost based on the impact the interconnection customer in the later cluster has on the network upgrade, as measured using the same method the transmission provider used to determine the impact of the interconnection customer(s) from the earlier cluster.

470. The Commission proposed to require the interconnection customer in the later cluster to pay the transmission provider for the interconnection customer's share of the shared network upgrade costs through a one-time lump sum, which the transmission provider would disburse to the appropriate interconnection customer(s) from the earlier cluster.⁹³⁴ The Commission also proposed that, where applicable, the interconnection customer from the earlier cluster or the relevant transmission provider would be required to assign transmission credits for the portion of the shared network

⁹²⁸ Pennsylvania Commission Initial Comments at 9.

⁹²⁹ ACORE Initial Comments at 8–9; AEE Initial Comments at 14–15; Ameren Initial Comments at 12; Interwest Initial Comments at 5; Northwest and Intermountain Initial Comments at 8; Ohio Commission Consumer Advocate Initial Comments at 12; PPL Initial Comments at 13; Public Interest Organizations Initial Comments at 31–33.

⁹³⁰ New York State Department Initial Comments at 9; Shell Reply Comments at 27–28.

⁹³¹ AEE Initial Comments at 15.

⁹³² NOPR, 179 FERC ¶ 61,194 at P 97.

⁹³³ *Id.* P 98.

⁹³⁴ *Id.* P 99.

⁹²⁵ NV Energy Initial Comments at 12; PacifiCorp Reply Comments at 3.

⁹²⁶ See *Dominion Energy S.C., Inc.*, Docket No. ER22–301–000 (Dec. 28, 2021) (delegated order); *Duke Energy Carolinas, LLC*, 176 FERC ¶ 61,075 (2021); *Pub. Serv. Co. of Colo.*, 169 FERC ¶ 61,182 (2019); *Tri-State Generation & Transmission Ass'n, Inc.*, 173 FERC ¶ 61,015 (2020).

⁹²⁷ PPL Initial Comments at 14.

upgrade that the interconnection customer in the later cluster funded to the interconnection customer in the later cluster. Additionally, the Commission proposed to require that the interconnection customer in the later cluster not be required to pay for its share of the cost of the shared network upgrade until that shared network upgrade is in service. The Commission also proposed to require transmission providers to provide the list of shared network upgrades to interconnection customers in subsequent clusters at the conclusion of the cluster study and to list those network upgrades in the appendix of the relevant interconnection customer's LGIA. The Commission acknowledged that there could be scenarios where the network upgrade may be identified as both a shared network upgrade and a contingent facility; and, thus a designation of a network upgrade as a contingent facility does not preclude it from also being a shared network upgrade if the network upgrade meets the aforementioned criteria and passes the screens.⁹³⁵

b. Comments

i. Comments in Support

471. Multiple commenters support the proposal.⁹³⁶ OMS states that, while cost sharing arrangements can be resource intensive and contentious, they can be crucial to facilitating an equitable interconnection process.⁹³⁷ NARUC states that the proposal is a logical extension of the cluster cost sharing concept and could spread costs over even more interconnection customers benefitting from network upgrades.⁹³⁸ A couple of commenters contend that the proposal will provide more certainty and result in fewer withdrawals, thus reducing associated restudies and study processing delays.⁹³⁹

472. Several commenters believe that the proposal will address the issue of “first movers/free riders” when interconnection customers in a later cluster study benefit from network

upgrades assigned to interconnection customers in earlier clusters.⁹⁴⁰ Shell claims that avoiding first mover subsidization of free riders is particularly important for offshore wind interconnections because of the potential lack of onshore access points and, therefore, argues that the Commission should be open to non-traditional cost allocation methods when contemplating methods to mitigate first mover risk.⁹⁴¹

473. Additionally, some commenters believe that the proposal is consistent with the Commission's cost causation policy.⁹⁴² Avangrid asserts that, when surplus transmission capacity created by a recent network upgrade is used by a later generating facility, the lower-queued interconnection customer should share the costs in a way that is commensurate with benefits like those allocated using the original proportional impact method assessment.⁹⁴³

474. Xcel does not believe the proposal will have a significant impact on the number of interconnection requests submitted but believes that it will reduce barriers to entry for all interconnection customers.⁹⁴⁴ Xcel believes that the proposal is appropriate where there is participant funding.

ii. Comments in Opposition

475. Some commenters oppose the proposal.⁹⁴⁵ Several commenters assert that it will not yield many benefits and that the Commission should focus on other reforms that are more likely to reduce network upgrade costs and improve the equity of allocating them among beneficiaries.⁹⁴⁶ Dominion and

Fervo Energy argue that interconnection customers in subsequent clusters do not “cause” the costs to be incurred, and to the extent the interconnection customers will benefit, they will contribute through their payment for transmission service.⁹⁴⁷

476. Other commenters believe that the implementation of the proposal will be administratively burdensome for transmission providers.⁹⁴⁸ A few commenters believe that the proposal will lead to increased disputes and FPA section 206 complaints at the Commission over cost allocation assignments.⁹⁴⁹

477. Several commenters express concern that the proposal will lead to interconnection study delays and/or restudies, which would undermine the NOPR's goal to reduce interconnection study processing timelines.⁹⁵⁰ A few commenters state that the proposal would require transmission providers to track all in-service network upgrades on the transmission system across all cluster studies over a five-year period, which they contend would be onerous or nearly impossible.⁹⁵¹ The U.S. Chamber of Commerce claims that power flow studies conducted up to five years after the in-service date of non-adjacent network upgrades will inevitably fail to accurately divide the relevant interconnection costs among disparate-in-time interconnection customers due to the many coinciding yet unrelated system changes that will affect the outcomes of such analyses.⁹⁵² PacifiCorp contends that this requirement would require transmission providers to track multiple requests for

⁹³⁵ *Id.* P. 100.

⁹³⁶ AES Initial Comments at 12; Avangrid Initial Comments at 32; Bonneville Initial Comments at 11; Interwest Initial Comments at 17; ISO-NE Initial Comments at 25; MISO Initial Comments at 47; NARUC Initial Comments at 9; National Grid Initial Comments at 19; NESCOE Initial Comments at 9–10; New Jersey Commission Initial Comments at 15–16; NYTOs Initial Comments at 17; SEIA Initial Comments at 12; Shell Initial Comments at 27; Vistra Initial Comments at 1; Xcel Initial Comments at 27.

⁹³⁷ OMS Initial Comments at 9.

⁹³⁸ NARUC Initial Comments at 9.

⁹³⁹ New Jersey Commission Initial Comments at 16; Omaha Public Power Initial Comments at 5–6; SEIA Initial Comments at 2.

⁹⁴⁰ ELCON Initial Comments at 9; Longroad Energy Reply Comments at 13; Pattern Energy Initial Comments at 18; SEIA Initial Comments at 12; Shell Initial Comments at 27; Xcel Initial Comments at 27; Vistra Initial Comments at 4.

⁹⁴¹ Shell Initial Comments at 27.

⁹⁴² Avangrid Initial Comments at 32; Omaha Public Power Initial Comments at 5–6; Vistra Initial Comments at 5.

⁹⁴³ Avangrid Initial Comments at 32.

⁹⁴⁴ Xcel Initial Comments at 48.

⁹⁴⁵ APS Initial Comments at 11; Dominion Initial Comments at 22, 28; Dominion Reply Comments at 17; Duke Southeast Utilities Initial Comments at 9; EEI Reply Comments at 12–13; Enel Initial Comments at 30; Indicated PJM TOs Initial Comments at 21; PacifiCorp Initial Comments at 27; Pennsylvania Commission Initial Comments at 10; R Street Initial Comments 12; SPP Initial Comments at 8; U.S. Chamber of Commerce Initial Comments at 8.

⁹⁴⁶ AEE Initial Comments at 16; Dominion Initial Comments at 23–24; Dominion Reply Comments at 17; Enel Initial Comments at 30; EEI Reply Comments at 12; Eversource Initial Comments at 15; Indicated PJM TOs Reply Comments at 40; PacifiCorp Initial Comments at 29; Pennsylvania Commission Initial Comments at 10; Pine Gate Initial Comments at 20; SoCal Edison Initial Comments at 17; SPP Initial Comments at 8; U.S. Chamber of Commerce Initial Comments at 8.

⁹⁴⁷ Dominion Initial Comments at 23; Fervo Energy Reply Comments at 5–6.

⁹⁴⁸ AECI Initial Comments at 5; AEE Initial Comments at 16; APS Initial Comments at 11; CAISO Initial Comments at 15; Dominion Initial Comments at 23–24; Dominion Reply Comments at 17; Enel Initial Comments at 30; Indicated PJM TOs Initial Comments at 21–22; National Grid Initial Comments at 19; PacifiCorp Initial Comments at 27, 29; Pine Gate Initial Comments at 22; PJM Initial Comments at 37–38; R Street Initial Comments at 12; SPP Initial Comments at 8; U.S. Chamber of Commerce Initial Comments at 8.

⁹⁴⁹ AECI Initial Comments at 5–6; Dominion Initial Comments at 23–24; Dominion Reply Comments at 18; Duke Southeast Utilities Initial Comments at 10; Fervo Energy Reply Comments at 5; PacifiCorp Initial Comments at 28; PJM Initial Comments at 37–38.

⁹⁵⁰ CAISO Initial Comments at 13; Dominion Initial Comments at 23; Dominion Reply Comments at 17; Indicated PJM TOs Reply Comments at 40; PacifiCorp Initial Comments at 27–28; Pennsylvania Commission Initial Comments at 10; SPP Initial Comments at 9.

⁹⁵¹ APS Initial Comments at 11–12; Dominion Initial Comments at 22; Dominion Reply Comments at 17; PacifiCorp Initial Comments at 28; U.S. Chamber of Commerce Initial Comments at 8.

⁹⁵² U.S. Chamber of Commerce Initial Comments at 8.

each network upgrade on different timelines, the suspension or withdrawal of which could trigger cascading revaluations and corresponding LGIA amendments.⁹⁵³ Dominion contends that the NOPR's proposal would complicate reviews and require additional time-consuming analysis, which would only worsen for transmission providers with a high volume of interconnection requests, such as RTOs/ISOs.⁹⁵⁴

478. Some commenters argue that the proposal will not create cost certainty for interconnection customers in earlier clusters when deciding whether to move forward with a generating facility because there would be no guarantee that an interconnection customer in a subsequent cluster would provide reimbursement.⁹⁵⁵ NextEra and PJM argue that a benefit of not sharing costs between clusters is that all the interconnection customers within a cluster simultaneously learn their network upgrade costs and associated cost responsibility, creating greater cost certainty.⁹⁵⁶

iii. Alternatives and Requests for Flexibility

479. Several commenters recommend modifications to the proposal.⁹⁵⁷ A few recommend that the Commission implement a minimum threshold before a network upgrade would be evaluated as a potential shared network upgrade.⁹⁵⁸ MISO and Xcel state that changes will be necessary in RTO/ISO regions where a transmission owner may unilaterally provide upfront funding for network upgrades to integrate the cost allocation for such a funding mechanism with the shared network upgrade proposal.⁹⁵⁹ ENGIE recommends that the Commission set requirements in the interconnection process to identify interconnection facilities and network upgrades that are

necessary to interconnect the generating facility, as well as network upgrades needed to mitigate local transmission constraints, and asserts that interconnection customers should not be responsible for the costs of distant and minimally impacted network upgrades.⁹⁶⁰ Xcel also contends that the interconnection customer in the subsequent cluster should enter into a multiparty facilities service agreement to reimburse the interconnection customers in the earlier cluster, rather than pay the proposed lump sum payment to the transmission provider.⁹⁶¹ Pattern Energy recommends that the interconnection customer in the later cluster be required to repay the earlier interconnection customer at the time of execution of the subsequent interconnection customer's interconnection agreement, and not when the relevant shared network upgrades go into service.⁹⁶²

480. A few commenters propose alternative methods for cost allocation for shared network upgrades.⁹⁶³ For instance, Xcel argues that the Commission should be clear that it will accept other proposals to determine if a network upgrade is shareable to subsequent interconnection requests.⁹⁶⁴

481. Some commenters support regional flexibility for transmission providers to implement any shared network upgrade mechanism.⁹⁶⁵ For example, NESCOE suggests that allowing transmission providers, especially RTOs/ISOs, some flexibility in coordinating with their states on developing proposed approaches to sharing the costs associated with network upgrades funded by interconnection customers in earlier clusters could minimize the contentious nature of developing cost sharing arrangements.⁹⁶⁶

482. Other commenters recommend that the Commission not adopt the shared network upgrade proposal in non-RTO/ISO regions where interconnection customers provide upfront funds for the network upgrades

and receive reimbursement through transmission credits from the transmission provider, plus interest (*i.e.*, the interconnection pricing policy established in Order No. 2003).⁹⁶⁷ Pine Gate states that under the NOPR proposal, interconnection customers in later clusters would potentially reimburse interconnection customers in earlier clusters sooner than the transmission provider would have via transmission credits, but with the same result.⁹⁶⁸ Enel asserts that coupling shared network upgrades with transmission credits creates even more administrative complexity, as an interconnection customer in a later cluster providing funds to an interconnection customer in an earlier cluster would necessitate a partial transfer of transmission credits, potentially on a partially depreciated asset, which creates an extremely complex payment, reimbursement, and multiparty crediting system that would be administratively burdensome.⁹⁶⁹ Similarly, APS and Duke Southeast Utilities express concern over an additional complication in the event the earlier interconnection customer has already been fully reimbursed for the network upgrades through transmission credits.⁹⁷⁰ In contrast, Vistra contends that the shared network upgrade proposal will be beneficial in regions with transmission crediting as it will speed reimbursement relative to the status quo.⁹⁷¹ Vistra claims that, when an overlap exists between the reimbursement of an interconnection customer through transmission credits and the reimbursement mechanism in this proposal, this proposal will appropriately charge interconnection customers in subsequent clusters.

483. Other commenters raise additional cost allocation concerns with the shared network upgrade proposal. Enel argues that, in markets where transmission credits do not apply, reimbursement for funding network upgrades is often granted in the form of congestion hedging mechanisms, and the repayment of network upgrade costs from a lower-queued interconnection customer to a higher-queued interconnection customer could create the need for a partial transfer of these

⁹⁵³ PacifiCorp Initial Comments at 28.

⁹⁵⁴ Dominion Initial Comments at 23.

⁹⁵⁵ AEE Initial Comments at 16; Clean Energy Associations Initial Comments at 25; Dominion Initial Comments at 23–24; EEI Initial Comments at 22; Enel Initial Comments at 30; Indicated PJM TOs Initial Comments at 22–23; Indicated PJM TOs Reply Comments at 40; NARUC Initial Comments at 9; NextEra Initial Comments at 18; Pine Gate Initial Comments at 22; PJM Initial Comments at 38; U.S. Chamber of Commerce Initial Comments at 8; Xcel Initial Comments at 48.

⁹⁵⁶ NextEra Initial Comments at 18–19; PJM Initial Comments at 38.

⁹⁵⁷ Clean Energy Associations Initial Comments at 25–26; ENGIE Reply Comments at 3–4; MISO Initial Comments at 48–49; Pattern Energy Initial Comments at 18; Xcel Initial Comments at 29.

⁹⁵⁸ ENGIE Reply Comments at 3–4; MISO Initial Comments at 48; R Street Initial Comments 12; Xcel Initial Comments at 29.

⁹⁵⁹ MISO Initial Comments at 48–49; Xcel Initial Comments at 29.

⁹⁶⁰ ENGIE Reply Comments at 3–4.

⁹⁶¹ Xcel Initial Comments at 29.

⁹⁶² Pattern Energy Initial Comments at 18.

⁹⁶³ Clean Energy Associations Initial Comments at 25; ENGIE Reply Comments at 3; Longroad Energy Reply Comments at 13; Pine Gate Initial Comments at 20, 23.

⁹⁶⁴ Xcel Initial Comments at 28.

⁹⁶⁵ Bonneville Initial Comments at 11; CAISO Initial Comments at 14; EEI Initial Comments at 22; Indicated PJM TOs Initial Comments at 21; Indicated PJM TOs Reply Comments at 40; National Grid Initial Comments at 19; NESCOE Initial Comments at 11; NESCOE Reply Comments at 7; NRECA Initial Comments at 9, 24; NYISO Initial Comments at 16; PJM Initial Comments at 37.

⁹⁶⁶ NESCOE Initial Comments at 11.

⁹⁶⁷ Duke Southeast Utilities Initial Comments at 10–11; Enel Initial Comments at 30; PacifiCorp Initial Comments at 26–28; Pine Gate Initial Comments at 22.

⁹⁶⁸ Pine Gate Initial Comments at 22.

⁹⁶⁹ Enel Initial Comments at 30.

⁹⁷⁰ APS Initial Comments at 12; Duke Southeast Utilities Initial Comments at 10.

⁹⁷¹ Vistra Initial Comments at 5.

congestion hedging rights.⁹⁷² SDG&E cautions against allowing scenarios where an higher-queued interconnection customer with cost responsibility terminates an executed LGIA but the network upgrades are still needed for later interconnection customers, thus leaving the transmission provider as the backstop for financing the network upgrade.⁹⁷³ A few commenters argue that the Commission should limit its proposal to share network upgrade costs between clusters to areas whether interconnection customers are not already reimbursed for network upgrade costs.⁹⁷⁴

484. Several commenters note that some RTOs/ISOs have similar existing cost allocation mechanisms to the NOPR proposal and request that, in those instances, the Commission defer to those transmission providers when the existing mechanisms are accomplishing the final rule's objectives.⁹⁷⁵ On a similar note, PJM and Indicated PJM TOs request that the Commission not require PJM to implement cost sharing between its clusters.⁹⁷⁶

485. Several commenters request various clarifications of the proposal and provide their thoughts on specific aspects.⁹⁷⁷

c. Commission Determination

486. We decline to adopt the NOPR proposal to revise the *pro forma* LGIP and *pro forma* LGIA to implement shared network upgrades between interconnection customers in an earlier cluster and interconnection customers in a subsequent cluster. We find that the reforms adopted in this final rule that require transmission providers to allocate network upgrade costs to interconnection customers within the same cluster using a proportional impact method, as discussed above, will provide interconnection customers with more cost certainty during the interconnection process and will allow

for sharing of network upgrade costs between interconnection customers that benefit from those network upgrades within the same cluster.

487. The record demonstrates the complexity of the NOPR proposal and potentially significant administrative burdens associated with implementing it for at least some transmission providers, especially under the Commission's interconnection pricing policy. We agree with some commenters that adopting the proposal would not provide cost certainty to interconnection customers in earlier clusters at the point that they have to proceed in the interconnection process because they would lack certainty about potential reimbursement for network upgrades from interconnection customers in subsequent clusters.⁹⁷⁸ Thus, the NOPR proposal is unlikely to reduce barriers to generation development due to the absence of network upgrade cost sharing provisions. Further, the proposal may introduce burdens for lower-queued interconnection customers that could be faced with reimbursing a higher-queued interconnection customer for a new shared network upgrade cost late in the interconnection process. For these reasons, we decline to adopt this NOPR proposal.⁹⁷⁹

488. We find that the final rule's reforms to conduct cluster studies and to allocate the costs of any assigned network upgrades to the cluster's interconnection customers on a proportional basis address the "first mover/free rider" issue.⁹⁸⁰ Under this final rule, a transmission provider must study interconnection customers in an earlier cluster study based on the transmission system at that time, and those interconnection customers will be assigned network upgrades that would not be needed but for their

interconnection to the transmission system; then, the transmission provider will study interconnection customers in a subsequent cluster study based on the transmission system at that point in time, and those interconnection customers will be assigned any necessary network upgrades that would not be needed but for their interconnection to the transmission system. Further, we note that under the Commission's interconnection pricing policy, interconnection customers receive reimbursement for network upgrade costs, which helps to mitigate any "first mover/free rider" concerns because interconnection customers are reimbursed through transmission credits. In addition, we find that the aforementioned reforms to conduct cluster studies and use a proportional impact method to allocate the costs of network upgrades within a cluster will also address "first mover/free rider" concerns in regions with independent entity variations to the interconnection pricing policy.

489. Because we decline to adopt this proposal, we do not respond to the requests for clarification or the requests for modifications to the NOPR proposal that would not address the reasons provided above for declining to adopt the NOPR proposal as a general matter.

6. Increased Financial Commitments and Readiness Requirements

490. In the NOPR, the Commission stated that the *pro forma* LGIP allows an interconnection customer to proceed through the generator interconnection process without having shown evidence to the transmission provider of meaningful progress toward achieving commercial viability.⁹⁸¹ The Commission stated its concern that, without requiring this type of evidence, interconnection customers will continue to submit multiple speculative interconnection requests and later withdraw those requests, triggering rounds of restudies. The Commission therefore proposed a set of reforms to adopt more stringent financial commitments and readiness requirements for interconnection customers to remain in the interconnection queue to discourage speculative interconnection requests and allow transmission providers to focus on processing viable interconnection requests and to better approximate the cost of the interconnection study process.⁹⁸²

⁹⁷² Enel Initial Comments at 30.

⁹⁷³ SDG&E Initial Comments at 6.

⁹⁷⁴ CAISO Initial Comments at 13; SoCal Edison Initial Comments at 16.

⁹⁷⁵ Ameren Initial Comments at 13; APPA-LPPC Initial Comments at 17; ISO-NE Initial Comments at 26; MISO Initial Comments at 47–48; NYISO Initial Comments at 15; NYTOs Initial Comments at 17; OMS Initial Comments at 9; SDG&E Initial Comments at 5.

⁹⁷⁶ Indicated PJM TOs Initial Comments at 23; PJM Initial Comments at 37.

⁹⁷⁷ APS Initial Comments at 11–12; Avangrid Initial Comments at 32–33; Clean Energy Associations Initial Comments at 25; Fervo Energy Initial Comments at 4; Fervo Energy Reply Comments at 4; LADWP Initial Comments at 4; Pattern Energy Initial Comments at 18; Pine Gate Initial Comments at 21–22; Tri-State Initial Comments at 12, 34; Vistra Initial Comments at 5.

⁹⁷⁸ AEE Initial Comments at 16; Clean Energy Associations Initial Comments at 25; Dominion Initial Comments at 23–24; EEI Initial Comments at 22; Enel Initial Comments at 30; Indicated PJM TOs Initial Comments at 22–23; Indicated PJM TOs Reply Comments at 40; NARUC Initial Comments at 9; NextEra Initial Comments at 18; Pine Gate Initial Comments at 22; PJM Initial Comments at 38; U.S. Chamber of Commerce Initial Comments at 8; Xcel Initial Comments at 48.

⁹⁷⁹ We note that MISO, ISO-NE, and NYISO, which have independent entity variations to the Commission's crediting policy, have similar shared network upgrade mechanisms to the NOPR proposal. See *Midwest Indep. Transmission Sys. Operator, Inc.*, 133 FERC ¶ 61,221, at P 336 (2010); *ISO New England Inc.*, 161 FERC ¶ 61,123, at PP 92–96 (2017); *N.Y. Indep. Sys. Operator, Inc.*, 124 FERC ¶ 61,238, at P 34 (2008).

⁹⁸⁰ See ELCON Initial Comments at 9; Longroad Energy Reply Comments at 13; Pattern Energy Initial Comments at 18; SEIA Initial Comments at 12; Shell Initial Comments at 27; Vistra Initial Comments at 4; Xcel Initial Comments at 27.

⁹⁸¹ NOPR, 179 FERC ¶ 61,194 at P 102.

⁹⁸² *Id.* P 103.

a. Increased Study Deposits

i. NOPR Proposal

491. In the NOPR, the Commission proposed to adopt the following study deposit framework in the *pro forma* LGIP:⁹⁸³

Size of proposed generating facility associated with interconnection request	Amount of deposit
> 20 MW < 80 MW	\$35,000 + \$1,000/MW.
≥ 80 MW < 200 MW	\$150,000.
≥ 200 MW	\$250,000.

492. The Commission proposed to require transmission providers to collect this study deposit before each phase of the new first-ready, first-served cluster study process (*i.e.*, cluster study, cluster restudy, and facilities study).⁹⁸⁴ The Commission proposed to require the interconnection customer to provide: (1) an initial study deposit along with its interconnection request, which will be used to pay for the cluster study; (2) the second study deposit of the same amount within 20 days of receiving the cluster study report from the transmission provider to cover the cost of any clustered restudies; and (3) the third study deposit of the same amount along with its executed facilities study agreement. The Commission explained that study deposits would be refundable, and that the transmission provider would refund any portion of the study deposits above the applicable study costs and withdrawal penalties once the interconnection customer executes the LGIA, requests the filing of an unexecuted LGIA and submits the corresponding payment discussed below, or withdraws from the interconnection queue. The Commission also proposed to delete section 8.1.1 of the *pro forma* LGIP to remove the requirement for transmission providers to invoice interconnection customers on a monthly basis for the work conducted on the facilities study.

493. The Commission sought comment on whether: (1) the proposed study deposit amounts accurately estimate the cost of conducting cluster studies; and (2) to adopt additional provisions or a different framework that would require larger proposed generating facilities to provide a higher deposit amount—such as a per MW framework.⁹⁸⁵

ii. Comments

494. Several commenters fully support the NOPR proposal to increase

study deposits in order to support more effective interconnection queue management and reduce speculative interconnection requests.⁹⁸⁶

495. Other commenters express qualified support for the proposal.⁹⁸⁷ For example, ELCON, New York Commission and NYSERDA, and NextEra contend that it is important that such measures be carefully balanced so that they are not overly burdensome or discouraging to interconnection customers with legitimate proposed generating facilities that may be delayed for reasons out of their control.⁹⁸⁸ Clean Energy Associations do not oppose the heightened study deposit requirements, provided that they are paired with real predictability on the timing of studies and real certainty on the costs of network upgrades.⁹⁸⁹ CAISO argues that the Commission must raise study deposits significantly, and contends that it is illusory to argue that interconnection customers without significant capital can progress to commercial operation in today's hyper-competitive climate.⁹⁹⁰ PPL asserts that the Commission's proposed study deposits are likely on the low end of what is required to ensure proper "skin in the game," but should work for many regions, including New England.⁹⁹¹ Tri-

⁹⁸⁶ AEP Initial Comments at 20; APPA-LPPC Initial Comments at 18; CAISO Initial Comments at 15–16; Consumers Energy Initial Comments at 5; EEI Initial Comments at 6–7; NARUC Initial Comments at 10; NYTOs Initial Comments at 17; Pennsylvania Commission Initial Comments at 14; SoCal Edison Initial Comments at 5; U.S. Chamber of Commerce Initial Comments at 8; UMPA Initial Comments at 5; Vistra Initial Comments at 6.

⁹⁸⁷ ACE-NY Initial Comments at 4; AES Initial Comments at 14; Ameren Initial Comments at 14; APPA-LPPC Initial Comments at 18; APS Initial Comments at 13; Avangrid Initial Comments at 16; Bonneville Initial Comments at 11; CESA Initial Comments at 8–9; Clean Energy Associations Initial Comments at 30; Cypress Creek Initial Comments at 20; Dominion Initial Comments at 24; EEI Initial Comments at 6; ELCON Initial Comments at 10; ENGIE Initial Comments at 4; Eversource Initial Comments at 16; Google Initial Comments at 20; Fervo Energy Initial Comments at 4; Idaho Power Initial Comments at 6; ISO-NE Initial Comments at 27; MISO Initial Comments at 49; National Grid Initial Comments at 20; NESCOE Reply Comments at 8, 10; New York Commission and NYSERDA Initial Comments at 8; NextEra Initial Comments at 20; NRECA Initial Comments at 25; NV Energy Initial Comments at 14; NYISO Initial Comments at 19–20; Omaha Public Power Initial Comments at 6; Pacific Northwest Utilities Initial Comments at 4; PJM Initial Comments at 24; PPL Initial Comments at 15; SEIA Initial Comments at 13; Southern Initial Comments at 8–9; SPP Initial Comments at 9; Tri-State Initial Comments at 4, 12.

⁹⁸⁸ ELCON Initial Comments at 10; New York Commission and NYSERDA Initial Comments at 8–9; NextEra Initial Comments at 20.

⁹⁸⁹ Clean Energy Associations Initial Comments at 30.

⁹⁹⁰ CAISO Initial Comments at 15–16.

⁹⁹¹ PPL Initial Comments at 15 (noting that PJM's interconnection queue reform proposal includes

State overall supports the proposed study deposit amounts but notes that interconnection customers proposing smaller generating facilities will end up paying a lower study deposit than what Tri-State is currently charging.⁹⁹² ENGIE, MISO, and SPP would prefer to collect study deposits only once upon entry into the cluster, rather than at each stage of the cluster study process, to reduce administrative burden on them and the interconnection customers.⁹⁹³ MISO and Shell argue that limiting speculative interconnection requests and ensuring more concrete financial readiness would be better achieved by requiring a single study deposit at the initiation of the generator interconnection process.⁹⁹⁴ Shell urges the Commission to base that deposit on the generating facility's size.

496. Several commenters argue that the final rule should provide each region with flexibility concerning the scope and application of any modifications to increased study deposits.⁹⁹⁵ Indicated PJM TOs contend that the transmission provider should be entitled to adjust the study deposit value if it observes that the actual cost of studies tends to be materially higher or lower.⁹⁹⁶ Dominion adds that the Commission should respect the previously accepted reforms made by transmission providers like Dominion and PJM with regard to study deposits.⁹⁹⁷

497. APS suggests that any refundable deposits should not include the Commission interest rate and argues that, by requiring additional funds to be deposited as described in the NOPR, the Commission's proposal would lead to an exorbitant increase in the amount of Commission interest paid back to an interconnection customer as it moves along through the process at the transmission provider's expense.⁹⁹⁸

498. Other commenters mostly oppose the NOPR proposal to increase study

higher deposits, ranging from \$75,000 to \$400,000 and a 10% nonrefundable component).

⁹⁹² Tri-State Initial Comments at 12.

⁹⁹³ ENGIE Initial Comments at 4; MISO Initial Comments at 50; SPP Initial Comments at 9.

⁹⁹⁴ MISO Initial Comments at 51; Shell Initial Comments at 17; Shell Reply Comments at 22.

⁹⁹⁵ Avangrid Initial Comments at 17; Bonneville Initial Comments at 11; Dominion Initial Comments at 24; Indicated PJM TOs Reply Comments at 29; Interwest Reply Comments at 12; ISO-NE Initial Comments at 28; National Grid Initial Comments at 21; New York Commission and NYSERDA Initial Comments at 9; NESCOE Reply Comments at 9–10; NRECA Initial Comments at 26; NYISO Initial Comments at 19; Pacific Northwest Utilities Initial Comments at 2; SPP Initial Comments at 10.

⁹⁹⁶ Indicated PJM TOs Reply Comments at 29.

⁹⁹⁷ Dominion Initial Comments at 24.

⁹⁹⁸ APS Initial Comments at 13.

⁹⁸³ *Id.* P 106.

⁹⁸⁴ *Id.* P 107.

⁹⁸⁵ *Id.* P 110.

deposits.⁹⁹⁹ CREA and NewSun agree that a tiered study deposit level tied to interconnection capacity requested may be warranted and at most study deposits should be increased to more accurately cover the cost of the studies, but comment that the rest of the NOPR’s proposal appears to increase the study deposit levels solely to deter interconnection customers from entering the interconnection queue, not because the current level of study deposits is insufficient to cover the costs of the studies.¹⁰⁰⁰ CREA and NewSun argue that, if this rulemaking generates evidence that the current study deposit levels are insufficient to cover the typical costs of studies, an increase may be justified, but until then, study deposits should not be increased. Eversource recommends that the Commission consider making the rate of increase per MW more gradual, and that based on the current proposed figures, the deposits may increase too quickly relative to generating facility size.¹⁰⁰¹ rPlus argues that study deposit requirements are unduly discriminatory or punitive to pumped storage as compared to other renewable technologies because a large capacity pumped storage facility would expect to hit the maximum deposit and/or penalty in every stage of the interconnection study process, LGIA, and potential withdrawal.¹⁰⁰² RWE Renewables fully supports allocating some risk for each generating facility entered into the interconnection queue to interconnection customers, but argues that increased financial deposits have unfortunately not been an adequate deterrent to a high volume of non-viable generating facilities entering into the interconnection queues.¹⁰⁰³

499. In response to the Commission’s request for comment on whether the proposed study deposit amounts accurately estimate the cost of conducting cluster studies, Ameren states that, based on its experience, the proposed study deposits are in line with the cost of conducting the cluster studies.¹⁰⁰⁴ Xcel contends that the proposed study deposits are more than the cost of studies in its experience, but as studies will need to be accelerated under the Commission’s proposal (to meet timelines) and may involve more

actions, the proposed study cost may be appropriate.¹⁰⁰⁵ NV Energy states that, on average, it spends between \$80,000 and \$100,000 between the cluster system impact study and facilities studies and refunds the remaining deposits with interest.¹⁰⁰⁶ Cypress Creek comments that in its experience, study costs can vary widely depending on the transmission provider, the staff resources it has available to conduct the study, and whether it needs to contract with external resources to conduct the study.¹⁰⁰⁷

500. CREA and NewSun urge the Commission to maintain a lower study deposit prior to obtaining the initial cluster study. They argue that larger study deposits are only justified once the interconnection customer can realistically assess the commercial viability of its proposed generating facility within the cluster after obtaining the potential interconnection costs.¹⁰⁰⁸ Fervo Energy contends that more information is needed before one can conclude that the proposed study deposit amount framework would not result in deposits that far exceed the actual cost of the studies, particularly in light of the withdrawal penalty proposal.¹⁰⁰⁹ Cypress Creek suggests that the Commission should provide additional justification and argues that the NOPR fails to provide any further justification for study costs (*i.e.*, based on a market analysis or other method), stating only that the proposed amounts “better approximate the cost of the interconnection study process.”¹⁰¹⁰

501. In response to the Commission’s request for comment on whether the Commission should adopt additional provisions or a different framework that would require larger proposed generating facilities to provide a higher study deposit amount, such as a per MW framework, PJM contends that the Commission should adopt readiness payments or study deposits based on the costs of the network upgrades necessary to interconnect the generating facilities in the cluster, which also contain “at-risk” non-refundable provisions.¹⁰¹¹

iii. Commission Determination

502. We adopt, with modification, the NOPR proposal to require interconnection customers to pay, and transmission providers to collect, study deposits as part of the cluster study

process.¹⁰¹² Specifically, we adopt the NOPR proposal to require the following study deposit framework in section 3.1.1.1 of the *pro forma* LGIP:

Size of proposed generating facility associated with interconnection request	Amount of deposit
> 20 MW < 80 MW	\$35,000 + \$1,000/MW.
≥ 80 MW < 200 MW	\$150,000.
≥ 200 MW	\$250,000.

503. However, we modify the NOPR proposal to require transmission providers to collect a single study deposit only once upon entry into the cluster (initial study deposit), rather than requiring transmission providers to collect a study deposit at each phase of the cluster study process, as proposed in the NOPR. Therefore, we decline to adopt the proposed revisions to sections 3.1.1.2, 7.5, and 8.1 of the *pro forma* LGIP that would have implemented the phased study deposit approach. As a result of this modification to the NOPR proposal, the initial study deposit will be required only at the time the interconnection customer submits an interconnection request. The amount of the initial study deposit will be calculated using the tiered approach proposed in the NOPR based on the proposed MW size of the generating facility, as shown in the chart above.

504. We adopt the tiered approach based on the proposed MW size of the generating facility for determining the amount of the initial study deposit because larger proposed generating facilities within a cluster generally cost more to study than smaller proposed generating facilities within a cluster. Further, although we acknowledge that this approach does not perfectly approximate study costs, we find it appropriate to require the transmission provider to collect a study deposit based on a tiered approach because study costs will be trued up and any excess deposit refunded once the interconnection customer executes the LGIA or requests the filing of an unexecuted LGIA and submits the corresponding payment discussed below or withdraws from the interconnection queue.

505. We modify the NOPR proposal to require only a single initial study deposit, rather than multiple deposits at

⁹⁹⁹ CREA and NewSun Initial Comments at 51–52; Eversource Initial Comments at 16; rPlus Initial Comments at 5; RWE Renewables Initial Comments at 2.

¹⁰⁰⁰ CREA and NewSun Initial Comments at 51–52.

¹⁰⁰¹ Eversource Initial Comments at 16.

¹⁰⁰² rPlus Initial Comments at 5.

¹⁰⁰³ RWE Renewables Initial Comments at 2.

¹⁰⁰⁴ Ameren Initial Comments at 14.

¹⁰⁰⁵ Xcel Energy Initial Comments at 29–30.

¹⁰⁰⁶ NV Energy Initial Comments at 14.

¹⁰⁰⁷ Cypress Creek Initial Comments at 20–21.

¹⁰⁰⁸ CREA and NewSun Initial Comments at 53.

¹⁰⁰⁹ Fervo Energy Initial Comments at 4.

¹⁰¹⁰ Cypress Creek Initial Comments at 20 (quoting NOPR, 179 FERC ¶ 61,194 at P 103).

¹⁰¹¹ PJM Initial Comments at 24.

¹⁰¹² Here, we refer to initial study deposits separately from the LGIA deposit. We discuss the latter in section III.A.6.d below. In the NOPR, the Commission discussed the deposits together, NOPR, 179 FERC ¶ 61,194 at P 109, although the proposed *pro forma* LGIP treated the initial study deposit, proposed *pro forma* LGIP section 3.1.1.1 (Initial Study Deposit), separate from the LGIA deposit, proposed *pro forma* LGIP section 3.1.1.3 (LGIA Deposit).

different stages of the cluster study process, as proposed in the NOPR. We believe that this modification will appropriately reduce the administrative burden for transmission providers to collect and manage the deposits.¹⁰¹³ We recognize that the amount of the study deposit for interconnection customers will be lower than that proposed in the NOPR because of this modification. We are persuaded by commenters' arguments that initial study deposits are best used to provide transmission providers with funds to cover the costs of studies performed for interconnection customers rather than to serve as a disincentive against speculative interconnection requests.¹⁰¹⁴ We therefore adopt an initial study deposit framework that better reflects the costs of the interconnection studies. For example, NV Energy states that, on average, it spends between \$80,000 and \$100,000 between the cluster system impact study and facilities studies and refunds the remaining deposits with interest.¹⁰¹⁵ Under the study deposit framework we adopt, study deposits range between \$55,000 and \$250,000 for the smallest and largest proposed generating facilities, respectively, and thus reasonably track likely study costs based on the record. We believe that other reforms adopted in this final rule—notably, the commercial readiness deposits and the site control requirements—will adequately serve as a disincentive against speculative interconnection requests without unnecessarily duplicating those efforts through increased study deposits.

506. Additionally, we adopt the NOPR proposal to delete section 8.1.1 of the *pro forma* LGIP to remove the requirement for transmission providers to invoice interconnection customers on a monthly basis for the work conducted on the facilities study. We find that this monthly invoicing requirement is burdensome to the transmission provider and unnecessary given that section 13.3 of the *pro forma* LGIP includes policies for invoicing and establishes that interconnection customers are responsible for the actual costs of interconnection studies. Accordingly, we also delete from *pro forma* LGIP Appendix 3 (Interconnection Facilities Study Agreement), the portion of article 5.0 that includes the monthly invoicing requirement.

507. We disagree with rPlus' argument that study deposit requirements are unduly discriminatory or punitive to pumped storage because of its large capacity.¹⁰¹⁶ We note that the initial study deposit reforms we adopt in this final rule are agnostic to the type of generating facility. Rather, the initial study deposits are based on the MW size of the proposed generating facility, regardless of the type of generating facility, such that interconnection customers proposing larger generating facilities will pay a larger deposit. As explained above, this reflects the fact that the expected costs to study those generating facilities are generally higher. Nonetheless, the modification we adopt here has the effect of lowering the required study deposit for all interconnection customers relative to the NOPR proposal, a finding which may partially allay rPlus' concern.

b. Demonstration of Site Control

i. NOPR Proposal

508. In the NOPR, the Commission stated that it believed that more stringent site control requirements will help prevent interconnection customers from submitting interconnection requests for speculative, commercially non-viable proposed generating facilities.¹⁰¹⁷ The Commission preliminarily found that an interconnection customer securing the exclusive land right necessary to construct its proposed generating facility (or for co-located resources, demonstration of shared land use) is sufficient evidence of the interconnection customer's commitment to construct the generating facility.

509. The Commission proposed to revise the *pro forma* LGIP to require interconnection customers to demonstrate 100% site control for their proposed generating facilities when they submit their interconnection request.¹⁰¹⁸ The Commission proposed

to have transmission providers include in their tariff specific acreage requirements for each generating facility technology type to demonstrate site control.

510. To cut down on multiple interconnection customers leasing the same site in order to remain in the interconnection queue, the Commission proposed to revise the *pro forma* LGIP to require interconnection customers to demonstrate the exclusive land right (where the land rights are exclusive to the interconnection customer, not necessarily the individual generating facility) to develop, construct, operate, and maintain its generating facility or, where facilities are co-located, to demonstrate a shared land use right to develop, construct, operate, and maintain co-located facilities.¹⁰¹⁹

511. Additionally, the Commission proposed to include a limited option for interconnection customers to submit a deposit in lieu of site control when they submit their interconnection request only when regulatory limitations prohibit the interconnection customer from obtaining site control.¹⁰²⁰ The Commission explained that in such instances, the interconnection customer would submit an initial deposit in lieu of site control of \$10,000 per MW, subject to a floor of \$500,000 and a ceiling of \$2 million, which would be applied toward any interconnection studies or a withdrawal penalty, if applicable. The Commission specified that such an interconnection customer must demonstrate 100% site control prior to the facilities study. The Commission further proposed that, after the interconnection customer notifies the transmission provider of a change to its site control demonstration, the transmission provider must give the interconnection customer 10 business days to demonstrate that the site control demonstration meets the applicable requirement after notification.¹⁰²¹

512. The Commission sought comment on: (1) whether there are other specific situations in which the Commission should accept a deposit in lieu of site control; (2) whether the definition of site control, including the requirement to obtain an exclusive land right (or, for co-located resources, a shared land right), should be broadened or refined to account for circumstances that may arise in, for example, the siting

Generating Facility. Site Control for any Co-Located Resource is demonstrated by a contract or other agreement demonstrating shared land use for all Co-Located Resources that meet the aforementioned provisions of the Site Control definition.

¹⁰¹⁹ *Id.* P. 117.

¹⁰²⁰ *Id.* P. 118.

¹⁰²¹ *Id.* P. 119.

¹⁰¹³ See ENGIE Initial Comments at 4; MISO Initial Comments at 50; SPP Initial Comments at 9.

¹⁰¹⁴ See Order No. 2003, 104 FERC ¶ 61,103 at P. 220.

¹⁰¹⁵ NV Energy Initial Comments at 14.

¹⁰¹⁶ See rPlus Initial Comments at 5.

¹⁰¹⁷ NOPR, 179 FERC ¶ 61,194 at P. 115.

¹⁰¹⁸ *Id.* P. 116. In the NOPR, the Commission proposed to define "site control" as "the exclusive land right to develop, construct, operate, and maintain the Generating Facility over the term of expected operation of the Generating Facility." Specifically, the NOPR definition explained that site control may be demonstrated by documentation establishing: (1) ownership of, a leasehold interest in, or a right to develop a site of sufficient size to construct and operate the Generating Facility or multiple Generating Facilities on a shared site behind one Point of Interconnection; (2) an option to purchase or acquire a leasehold site for such purpose; (3) site of sufficient size to construct and operate the Generating Facility; or (4) any other documentation that clearly demonstrates the right of Interconnection Customer to exclusively occupy a site of sufficient size to construct and operate the

and permitting of offshore resources in bodies of water and/or submerged land; (3) whether and how the definition of site control should be adjusted for interconnection customers to account for any regulatory requirements they may have associated with proposed generating facilities developed on sites owned or physically controlled by a state government entity and/or a Federal Government entity; (4) the appropriate stage in developing such sites when the Commission should view completion of such stage as indicative of an interconnection customer's request being non-speculative and whether there are substantive differences among interconnection customers developing sites owned or physically controlled by a state government entity and/or a Federal Government entity; (5) whether the Commission should allow transmission providers to accept demonstrations of less than 100% site control in the initial phases of the interconnection study process, outside of when regulatory limitations prohibit the interconnection customer from obtaining site control; and (6) whether the Commission should instead adopt site control provisions that allow a deposit in lieu of site control to enter the generator interconnection process and be evaluated under the first-ready, first-served cluster study process described above but require interconnection customers to demonstrate site control to enter the facilities study.¹⁰²²

ii. Comments

(a) General Comments

513. Several parties generally support the proposal to increase site control requirements.¹⁰²³ These commenters generally agree that the proposal is

reasonable and that these measures can reduce speculative interconnection requests, represent a reasonable financial burden, help ensure that the interconnection customer is ready to enter the interconnection queue,¹⁰²⁴ help load serving entities have generating facilities interconnected as quickly and efficiently as possible,¹⁰²⁵ and reduce harm to other interconnection customers that have successfully secured site control for their proposed generating facility.¹⁰²⁶

514. CREA and NewSun, on the other hand, argue that the Commission's proposed site control requirements are anti-competitive because they allow utilities to erect market barriers to competitors' generating facilities and because the requirements bar investment by companies seeking to develop generating facilities using a merchant generation model.¹⁰²⁷

(b) Comments on Specific Proposal

(1) Definition and Reasonable Evidence of Site Control

515. Some commenters support the proposed definition of site control.¹⁰²⁸ MISO notes that the proposed requirement for exclusivity or the demonstration of a right to co-locate generating facilities is in MISO's current tariff and that these requirements have proven to be successful at preventing speculative interconnection requests from entering or continuing in the interconnection queue.¹⁰²⁹

516. Some commenters suggest modifications to the definition of site control. ENGIE and Tri-State recommend that the Commission consider requirements similar to MISO's requirements to identify when and whether an interconnection request is non-speculative.¹⁰³⁰ Xcel supports modifying the definition of site control to ensure exclusivity and allow for co-ownership.¹⁰³¹

517. PJM requests that the Commission clarify that interconnection customers are prohibited from submitting evidence of site control that uses the same land for multiple interconnection requests, unless the site is large enough to host multiple generating facilities.¹⁰³²

518. Enel supports the proposal to require land rights that are exclusive to one development company, but not necessarily to the individual generating facility.¹⁰³³ According to Enel, when used regarding land rights, "exclusive" means that only the owner of those land rights can possess the property, and this interpretation could prevent co-located resources from being built if one parent company was using two separate special purpose vehicles for two different generating facilities sharing land. Enel therefore recommends that the Commission clarify the intent of this word so that it does not artificially restrict multi-use applications.

519. Cypress Creek believes that, to the extent the Commission intends that a "land right" should involve zoning approval, such a proposal would be unreasonable because interconnection customers do not typically initiate local permitting until the system impact study's impact to overall generating facility commercial viability.¹⁰³⁴

520. Southern requests that the Commission clarify subpart (3) of the proposed site control definition, arguing that, as written, it appears to be an incomplete statement that may authorize an interconnection customer to simply provide evidence that a site is big enough to host a proposed generating facility rather than evidence that the interconnection customer actually has any rights to that property.¹⁰³⁵ Enel argues that subpart (3) to the definition should be deleted, because as modified, that item is duplicative of and a subset of the materials covered under subpart (1).¹⁰³⁶

521. Other parties request that the Commission clarify the definition of site control to specify what constitutes reasonable evidence to demonstrate 100% site control¹⁰³⁷ or provide suggestions for what should be considered reasonable evidence of site control.¹⁰³⁸ NYISO requests that the final rule establish uniform requirements across regions for making the 100% site control determination.¹⁰³⁹ APS requests that the Commission specify what is considered reasonable evidence in the same manner that the

¹⁰²² *Id.* PP 121–123.

¹⁰²³ AEP Initial Comments at 21; AES Initial Comments at 15; Ameren Initial Comments at 15–16; APPA–LPPC Initial Comments at 17–18; Avangrid Initial Comments at 9, 18–19; Bonneville Initial Comments at 11; CAISO Initial Comments at 16; Consumers Energy Initial Comments at 5; Dominion Reply Comments at 15; ELCON Initial Comments at 10; Enel Initial Comments at 40–42; Eversource Initial Comments at 16; Fervo Energy Reply Comments at 6; GSCE Initial Comments at 1; Hydropower Commenters Initial Comments at 12; Interest Energy Alliance Reply Comments at 13; Inverenergy Initial Comments at 9; Longroad Energy Initial Comments at 12; MISO Initial Comments at 53; NARUC Initial Comments at 10; NRECA Initial Comments at 27; NV Energy Initial Comments at 15; NYTOs Initial Comments at 18–19; Ørsted Initial Comments at 10; Pacific Northwest Utilities Initial Comments at 4; PG&E Initial Comments at 4; Pattern Energy Initial Comments at 29–30; Pine Gate Initial Comments at 23; PJM Initial Comments at 21–22; SEIA Initial Comments at 14; SoCal Edison Initial Comments at 6; Tri-State Initial Comments at 13–15; U.S. Chamber of Commerce Initial Comments at 8; UMPA Initial Comments at 5; Xcel Initial Comments at 32.

¹⁰²⁴ Enel Initial Comments at 40.

¹⁰²⁵ Ameren Initial Comments at 15–16.

¹⁰²⁶ PJM Initial Comments at 29.

¹⁰²⁷ CREA and NewSun Reply Comments at 46.

¹⁰²⁸ MISO Initial Comments at 53; National Grid Initial Comments at 22.

¹⁰²⁹ MISO Initial Comments at 53.

¹⁰³⁰ ENGIE Initial Comments at 5; Tri-State Initial Comments at 14.

¹⁰³¹ Xcel Initial Comments at 31.

¹⁰³² PJM Initial Comments at 31.

¹⁰³³ Enel Initial Comments at 42 (referencing NOPR, 179 FERC ¶ 61,194 at P 117).

¹⁰³⁴ Cypress Creek Initial Comments at 22.

¹⁰³⁵ Southern Initial Comments at 34–35.

¹⁰³⁶ Enel Initial Comments at 82.

¹⁰³⁷ APS Initial Comments at 7; NYISO Initial Comments at 21–22; Omaha Public Power Initial Comments at 7.

¹⁰³⁸ EPSA Initial Comments at 8; National Grid Initial Comments at 22; NRECA Initial Comments at 27; Omaha Public Power Initial Comments at 7; SoCal Edison Initial Comments at 6.

¹⁰³⁹ NYISO Initial Comments at 21–22.

Commission defines commercial readiness milestones and argues that clarification is needed in order to avoid subjectivity regarding what is considered “reasonable” evidence to the transmission provider.¹⁰⁴⁰

522. Omaha Public Power requests that the Commission clarify whether transmission providers will be able to accept lease options, instead of executed leases, as sufficient evidence of site control.¹⁰⁴¹ Omaha Public Power notes that it has become industry standard to use lease options and argues that the Commission should not enact a rule that conflicts with current industry standard practices. SoCal Edison supports the NOPR proposal, provided that 100% site control includes an option to lease up to, and including, the commercial operation date or acquire the land when the interconnection request is submitted.¹⁰⁴²

523. EPSA advises the Commission to consider options to demonstrate site control, including requiring attestations that a lessee or potential owner is in exclusive negotiations to establish site control, though it generally supports the development of clearer demonstrations.¹⁰⁴³ Interwest Energy Alliance recommends that the Commission consider evidence of active negotiations as potentially a sufficient demonstration of site control before the closing of the cluster request window.¹⁰⁴⁴

524. SoCal Edison recommends that the Commission consider requiring that site control agreements be between the site owner and the same legal entity that is submitting the interconnection request.¹⁰⁴⁵ SoCal Edison explains that it has run into challenges when trying to determine whether interconnection customers have exclusive site control, in part due to the fact that companies change over time with renaming and/or mergers.

525. NRECA suggests that demonstration of site control with exclusive land rights should be allowed to include provisions that such rights are contingent upon favorable interconnection study results, inclusive of cost and schedule.¹⁰⁴⁶ NRECA notes that site control land options on many occasions come with a caveat that the lessee or purchaser has the ability to terminate within a due diligence period

if interconnection results are unfavorable due to cost or schedule.¹⁰⁴⁷

526. NV Energy requests clarification on whether an interconnection request should be deemed withdrawn if the interconnection customer does not provide demonstration of site control by the execution of the facilities study agreement.¹⁰⁴⁸

527. Ørsted urges the Commission to clarify that, for offshore wind projects, the definition of “exclusive site control of the entire generating facility” means exclusive control of the Bureau of Ocean Energy Management (BOEM) issued offshore wind lease area, not cable routes on state submerged land or onshore cable routes to the point of interconnection.¹⁰⁴⁹ Ørsted reasons that, due to the extensive state and Federal permitting process, offshore wind developers may not have authorization in the form of permits or other land use rights for portions of the offshore wind project on state submerged land or for the offshore and onshore cable routes during the interconnection process.

528. NYTOs and Pacific Northwest Utilities argue that it is unclear what would constitute 100% site control and therefore regions should be allowed to implement appropriate definitions for their regions on compliance to address their specific circumstances.¹⁰⁵⁰

529. ISO–NE states that its existing LGIP and SGIP provisions, which are consistent with those proposed in the NOPR, have proven to be effective, and that the Commission should extend flexibility so that they may be maintained.¹⁰⁵¹ Similarly, Indicated PJM TOs argue that the final rule should permit PJM to implement its 2022 interconnection queue reform proposal for demonstrating site control, which is more rigorous than the NOPR proposal.¹⁰⁵²

530. Several parties support the NOPR proposal to define 100% site control as an acreage requirement specific to the generating facility type and to require these acreage requirements in the

tariff.¹⁰⁵³ Enel states that inclusion of acreage requirements in the tariff gives the Commission visibility into regional requirements to ensure that no transmission provider is significantly out of line with national assumptions.¹⁰⁵⁴

531. Several commenters request that the Commission create a process by which an interconnection customer can demonstrate that its generating facility requires a different amount of acreage than the default value listed in the tariff.¹⁰⁵⁵ AES predicts that this approach will help ensure viable generating facilities are not inadvertently removed from the interconnection queue.¹⁰⁵⁶ MISO states that its tariff also allows an interconnection customer to demonstrate that it can operate the proposed generating facility with fewer acres.¹⁰⁵⁷ National Grid believes that regional flexibility would certainly be required for each transmission provider’s proposed acreage requirements and requests clarification accordingly.¹⁰⁵⁸ Some commenters suggest that transmission providers be required to update the acreage requirements periodically to reflect technological advancements.¹⁰⁵⁹

532. Other parties oppose the NOPR proposal to require specific acreage requirements in the tariff¹⁰⁶⁰ or suggest that these requirements should be included in business practice manuals rather than tariffs.¹⁰⁶¹ Some commenters argue that these acreage requirements will likely change with technology advances, and it would be burdensome if transmission providers are required to submit an FPA section 205 filing every time they need to change acreage requirements.¹⁰⁶² Fervo Energy argues that the risk in this proposal is that the acreage requirements may understate the energy

¹⁰⁵³ AES Initial Comments at 15; Enel Initial Comments at 42; NYISO Initial Comments at 21; Tri-State Initial Comments at 13.

¹⁰⁵⁴ Enel Initial Comments at 42.

¹⁰⁵⁵ AES Initial Comments at 16; Clean Energy Associations Initial Comments at 32–33; Public Interest Organizations Initial Comments at 27.

¹⁰⁵⁶ AES Initial Comments at 16.

¹⁰⁵⁷ MISO Initial Comments at 54.

¹⁰⁵⁸ National Grid Initial Comments at 23.

¹⁰⁵⁹ Clean Energy Associations Initial Comments at 32–33; Longroad Energy Initial Comments at 12; Pattern Energy Initial Comments at 29–30.

¹⁰⁶⁰ EPSA Initial Comments at 8; Fervo Energy Initial Comments at 4; Ørsted Initial Comments at 11; Pine Gate Initial Comments at 24–25; PJM Initial Comments at 30.

¹⁰⁶¹ MISO Initial Comments at 53–54; Pine Gate Initial Comments at 24–25; PJM Initial Comments at 30; Tri-State Initial Comments at 13.

¹⁰⁶² Ørsted Initial Comments at 11; PJM Initial Comments at 30; Pine Gate Initial Comments at 24–25.

¹⁰⁴⁰ APS Initial Comments at 7.

¹⁰⁴¹ Omaha Public Power Initial Comments at 7–8.

¹⁰⁴² SoCal Edison Initial Comments at 6.

¹⁰⁴³ EPSA Initial Comments at 8.

¹⁰⁴⁴ Interwest Energy Alliance Reply Comments at 13.

¹⁰⁴⁵ SoCal Edison Initial Comments at 6.

¹⁰⁴⁶ NRECA Initial Comments at 27.

¹⁰⁴⁷ *Id.* at 27 n.70.

¹⁰⁴⁸ NV Energy Initial Comments at 15.

¹⁰⁴⁹ Ørsted Initial Comments at 14.

¹⁰⁵⁰ NYTOs Initial Comments at 19; Pacific Northwest Utilities Initial Comments at 4.

¹⁰⁵¹ ISO–NE Initial Comments at 29.

¹⁰⁵² Indicated PJM TOs Initial Comments at 25 (citing PJM Interconnection, L.L.C., Tariff Revisions for Interconnection Process Reform, Docket No. ER22–2110–000 (filed June 14, 2022)). The Commission conditionally accepted PJM’s filing on November 29, 2022 and accepted PJM’s associated compliance filing on February 2, 2023. *See PJM Interconnection, L.L.C.*, 181 FERC ¶ 61,162 (2022), order on reh’g, 184 FERC ¶ 61,006 (2023); *PJM Interconnection, L.L.C.*, Docket No. ER22–2110–003 (Feb. 2, 2023) (delegated letter order).

density of a generating facility and thus overstate the number of acres required for a given number of MW, resulting in discriminatory treatment between competing generation technologies.¹⁰⁶³

533. Ørsted recommends that transmission providers use the most recent estimates of power density from BOEM when establishing acreage requirements for offshore wind projects.¹⁰⁶⁴ Ørsted notes that offshore wind turbines have grown much larger in recent years, which allows significantly more power production from the same amount of acreage, and they argue that if transmission providers' tariffs were not updated frequently enough, the acreage requirements may become unreasonable.

534. Pine Gate recommends that acreage requirements specifically address how the requirements will be applied to hybrid and co-located generating facilities.¹⁰⁶⁵

535. Some commenters request that the Commission clarify whether the site control requirement is limited to the generating facility or whether it also applies to transmission system elements like interconnection facilities or other upgrades that may be identified through the interconnection study process.¹⁰⁶⁶ Several parties argue that, for the initial request and study phase, 100% site control should not apply to land required to finalize routes for generator ties lines.¹⁰⁶⁷ AES argues that interconnection customers require flexibility when siting generator tie lines, which usually occurs near the very end of the interconnection process.¹⁰⁶⁸ Enel notes that there are sometimes crossings of railroads, streams, or other circumstances that require considerable time to complete and are outside the interconnection customer's control.¹⁰⁶⁹ AEE explains that issues can occur when interconnection customers have all but one small parcel on the route of their generating facility secured, with only one small piece of connectivity missing due to permitting delays or other issues.¹⁰⁷⁰ Similarly, Invenery argues

that it is unreasonable and impractical to predict and obtain rights to land for facilities that have not yet been identified.¹⁰⁷¹ Invenery also states that the point of interconnection can change during the study process, thus changing the land needs for the interconnection customer's interconnection facilities, and this change may be driven by a number of different factors, including the transmission provider's preference, which may be outside the interconnection customer's control.

536. Ørsted, ACE–NY, and Equinor Wind note a myriad of challenges for obtaining site control for interconnection facilities for offshore wind projects, such as conflicts between Federal and state permitting entity requirements for project flexibility and adaptability.¹⁰⁷² Ørsted argues that site control for interconnection facilities for offshore wind developers is only obtainable very late in the interconnection process.¹⁰⁷³

537. Other commenters argue that the Commission should expand the proposed definition of site control to apply some degree of site control requirements to interconnection facilities, such as a requirement to demonstrate 50% site control for interconnection facilities when submitting the interconnection request.¹⁰⁷⁴ MISO encourages the Commission to require site control for interconnection facilities at the same time that it requires site control for the generating facilities.¹⁰⁷⁵ AEP explains that some interconnection customers submit interconnection requests that are not feasible given where interconnection customer interconnection facilities would have to be sited to connect the generating facility to the transmission system at the selected point of interconnection.¹⁰⁷⁶ Additionally, AEP explains that, even if a generation site is suitable, there may not be "room" at certain locations for a substation or switchyard due to a variety of issues, including abandoned mines, surrounding wetlands, or other geographic impediments.¹⁰⁷⁷ According to AEP, site control for generating facilities can be far less important than

feasible control over the land needed to connect the generating facility to the transmission system.

538. Enel argues that the addition of a generator tie line site control requirement will increase the quality of interconnection study results and increase certainty for interconnection customers as the interconnection process becomes more costly and risky to navigate.¹⁰⁷⁸ Enel states that it has observed or heard of interconnection customers submitting existing site control from very remote locations to secure interconnection queue positions, and later submitting a modification request to move the generating facility site close to the point of interconnection after the generating facility's actual intended site control has been obtained. Enel states that this is done by interconnection customers to reduce the duration and subsequently the cost of maintaining site control, as a failed distant asset can be used for a new interconnection queue position elsewhere until site control for the new generating facility area is complete. In addition, Enel states that it supports SPP's approach, which also requires 75% of generator tie line site control after the first cluster restudy, to ensure interconnection customers are making reasonable progress.

539. National Grid argues that demonstrating site control for interconnection facilities is crucial for generating facility development and interconnection queue management particularly in cases where numerous interconnection requests in the interconnection queue are reliant on the construction of certain network upgrades.¹⁰⁷⁹ National Grid argues that the payment of cash or the provision of other security in lieu of demonstration of site control of transmission owner interconnection facilities or network upgrades built by an interconnection customer does not further the goals of the NOPR.

(2) Site Control Demonstration

540. Several commenters support the NOPR proposal to require interconnection customers to demonstrate 100% site control for their proposed generating facilities when they submit their interconnection request.¹⁰⁸⁰ MISO argues that obtaining site control is consistent with the "first-ready, first-served" model and that delaying site control for interconnection

¹⁰⁶³ Fervo Energy Initial Comments at 4.

¹⁰⁶⁴ Ørsted Initial Comments at 11.

¹⁰⁶⁵ Pine Gate Initial Comments at 24–25.

¹⁰⁶⁶ Interwest Energy Alliance Reply Comments at 13; NYISO Initial Comments at 22.

¹⁰⁶⁷ ACE–NY Initial Comments at 5; AES Initial Comments at 15; Avangrid Initial Comments at 18; Clean Energy Associations Initial Comments at 32; Enel Initial Comments at 41; ENGIE Initial Comments at 5; Equinor Reply Comments at 3; rPlus Initial Comments at 2–3; Shell Reply Comments at 23.

¹⁰⁶⁸ AES Initial Comments at 15.

¹⁰⁶⁹ Enel Initial Comments at 41.

¹⁰⁷⁰ AEE Initial Comments at 17.

¹⁰⁷¹ Invenery Initial Comments at 10.

¹⁰⁷² ACE–NY Initial Comments at 5; Equinor Reply Comments at 4; Ørsted Initial Comments at 13; Ørsted Reply Comments at 2, 4, 5; Shell Reply Comments at 29.

¹⁰⁷³ Ørsted Initial Comments at 12.

¹⁰⁷⁴ AEE Initial Comments at 18; AEP Initial Comments at 21–23; Cypress Creek Initial Comments at 22; Enel Initial Comments at 41; MISO Initial Comments at 56; National Grid Initial Comments at 22–23; Shell Reply Comments at 23.

¹⁰⁷⁵ MISO Initial Comments at 56.

¹⁰⁷⁶ AEP Initial Comments at 22.

¹⁰⁷⁷ *Id.* at 23.

¹⁰⁷⁸ Enel Initial Comments at 41–42.

¹⁰⁷⁹ National Grid Initial Comments at 23.

¹⁰⁸⁰ ACE–NY Initial Comments at 5; APS Initial Comments at 14; MISO Initial Comments at 56; National Grid Initial Comments at 22; Ørsted Initial Comments at 12.

requests until later in the interconnection process just increases the instances of late-stage withdrawals that leads to uncertainty, unplanned restudies, and delays for the remaining interconnection requests.¹⁰⁸¹ National Grid asserts that the demonstration of complete and exclusive site control is necessary at the interconnection request stage to avoid submission of interconnection requests prematurely, potential conflicts with other interconnection requests, and delays in issuing cluster studies.¹⁰⁸² GSCE contends that there should be few exceptions to a site exclusivity requirement to enter the cluster study process so leniency is not granted to the type of interconnection requests that linger in the interconnection queue while they struggle to secure difficult land rights and permitting.¹⁰⁸³

541. PJM opposes any requirement on transmission providers to accept demonstrations of less than 100% site control at the time of an interconnection request, except for accommodations for interconnection requests for proposed generating facilities to be sited offshore or on government owned land.¹⁰⁸⁴

542. MISO notes that its tariff requires redemonstrations of site control.¹⁰⁸⁵ Similarly, Indicated PJM TOs support requiring 100% site control at more than one decision point,¹⁰⁸⁶ and assert that transmission providers should be allowed to confirm site control throughout the interconnection process.¹⁰⁸⁷ Indicated PJM TOs and Longroad Energy argue that the Commission should strengthen the proposed site control requirements to ensure that interconnection customers are maintaining site control throughout the interconnection process.¹⁰⁸⁸

543. On the other hand, APS believes that simultaneous submission of the interconnection customer-executed LGIA and the continued demonstration of site control is duplicative and unnecessary if an interconnection customer demonstrates site control at the time an interconnection request is made.¹⁰⁸⁹

544. Several commenters oppose the NOPR proposal to require an

interconnection customer to demonstrate 100% site control at the time of the interconnection request and/or propose alternative site control requirements.¹⁰⁹⁰ A number of commenters express concern that the NOPR proposal is not compatible with the generating facility development cycle.¹⁰⁹¹ EPSA argues that a 100% exclusive site control requirement in advance of the processing of the facilities study is not reasonable because it overlooks the complicated and extensive process of negotiating for land leases or purchases.¹⁰⁹² Similarly, Cypress Creek and AEE argue that the NOPR proposal does not reflect realities of development, which include stringent permitting requirements, and may disadvantage certain interconnection customers despite being on a path to full site control and commercial readiness.¹⁰⁹³ CESA and Clean Energy Associations argue that the requirement for 100% site control at the interconnection request stage is excessively stringent and would significantly favor utility-owned projects.¹⁰⁹⁴

545. CREA and NewSun argue that the NOPR proposal is not adequately supported and urge the Commission to maintain the existing site control requirements.¹⁰⁹⁵ CREA and NewSun argue that the proposal is unreasonable and “creates a Catch-22”: specifically, that without reliable visibility as to the interconnection costs and viability for its proposed generating facility within the specific cluster, the interconnection customer will not be able to attract investment needed to secure site control. CREA and NewSun also argue that a landowner hoping to see property developed may not agree to permanently tie up land in a lease before the interconnection customer can show interconnection is viable. CREA and NewSun argue that interconnection requests may prove uneconomic after receipt of initial interconnection studies and thereafter cannot finalize site

control due to uneconomic interconnection costs. CREA and NewSun also assert that the Commission made no effort in the NOPR to ascertain the impact on the market of the “draconian” site control rules for such transmission providers that have been allowed to adopt them.

546. R Street argues that requiring even partial site control at the time of the interconnection request may create delays and increase project development costs because it would require more options contracts to be in place with landowners.¹⁰⁹⁶ NextEra argues that site control is a limited indicator of generating facility viability.¹⁰⁹⁷ rPlus argues that requiring 100% site control at the interconnection request stage will inhibit the flexibility for interconnection request design changes that is needed to develop pumped storage projects.¹⁰⁹⁸

547. Several commenters recommend that the Commission modify the site control requirements in the final rule to require less than 100% site control at the time of the interconnection request. For example, Clean Energy Associations, SEIA, and Cypress Creek argue that no more than 75% site control is appropriate at the time of the interconnection request.¹⁰⁹⁹ Shell argues that the Commission should only require partial site control when the interconnection request is made.¹¹⁰⁰ Clean Energy Associations supports an escalating schedule of site control through the interconnection process and suggests that the Commission should modify the NOPR proposal to also require 90% site control at the post-cluster study decision point and 100% site control at the post-facilities study decision point.¹¹⁰¹

548. AEE argues that 90% site control at the time of the interconnection request provides interconnection customers sufficient flexibility.¹¹⁰² Additionally, several commenters state that 100% site control at the post-facilities study decision point would be appropriate.¹¹⁰³ AEE argues that these altered requirements will reduce speculative interconnection requests while also providing incentive for

¹⁰⁸¹ MISO Initial Comments at 56–57.

¹⁰⁸² National Grid Initial Comments at 22.

¹⁰⁸³ GSCE Initial Comments at 7.

¹⁰⁸⁴ PJM Initial Comments at 32.

¹⁰⁸⁵ MISO Initial Comments at 53.

¹⁰⁸⁶ Indicated PJM TOs Initial Comments at 26 (citing PJM Interconnection, L.L.C., Motion for Leave to Answer and Answer of PJM Interconnection, L.L.C., Docket No. ER22–2110–000, at 20 (filed Aug. 2, 2022)).

¹⁰⁸⁷ *Id.* at 8, 26.

¹⁰⁸⁸ Indicated PJM TOs Reply Comments at 30; Longroad Energy Reply Comments at 18.

¹⁰⁸⁹ APS Initial Comments at 7.

¹⁰⁹⁰ AEE Initial Comments at 17–18; Clean Energy Associations Initial Comments at 31–32; CREA and NewSun Initial Comments at 54; Cypress Creek Initial Comments at 22; EPSA Initial Comments at 8; NextEra Initial Comments at 21; Pine Gate Initial Comments at 24; R Street Initial Comments at 8; SEIA Initial Comments at 15; Shell Reply Comments at 23–24.

¹⁰⁹¹ AEE Initial Comments at 17; Clean Energy Associations Initial Comments at 31; CREA and NewSun Initial Comments at 54; Cypress Creek Initial Comments at 22; EPSA Initial Comments at 8; NextEra Initial Comments at 21; R Street Initial Comments at 8.

¹⁰⁹² EPSA Initial Comments at 8.

¹⁰⁹³ AEE Initial Comments at 17.

¹⁰⁹⁴ CESA Reply Comments at 5.

¹⁰⁹⁵ CREA and NewSun Initial Comments at 54–55.

¹⁰⁹⁶ R Street Initial Comments at 13.

¹⁰⁹⁷ NextEra Initial Comments at 21–22.

¹⁰⁹⁸ rPlus Initial Comments at 2.

¹⁰⁹⁹ Clean Energy Associations Initial Comments at 31–32; Cypress Creek Initial Comments at 22; SEIA Initial Comments at 15.

¹¹⁰⁰ Shell Reply Comments at 23–24.

¹¹⁰¹ Clean Energy Associations Initial Comments at 31–32.

¹¹⁰² AEE Initial Comments at 18.

¹¹⁰³ *Id.*; CESA Reply Comments at 5–6; Clean Energy Associations Initial Comments at 31–32; Cypress Creek Initial Comments at 22; Xcel Initial Comments at 32.

interconnection customers to pursue remaining land rights after entering the interconnection queue.¹¹⁰⁴

549. Some commenters note that less than 100% site control at the interconnection request stage would allow interconnection customers flexibility to address the results of interconnection studies or other regulatory processes, which may lead to changes in the size or design of a generating facility.¹¹⁰⁵ Additionally, SEIA requests that the Commission require transmission providers to allow interconnection customers to change site boundaries or reduce the size of a proposed generating facility, as long as the point of interconnection remains the same, in order to accommodate changes resulting from interconnection studies or regulatory changes.¹¹⁰⁶ Pine Gate notes that sometimes interconnection customers are still actively negotiating with landowners close to the deadline for a cluster review window and requests the Commission to permit interconnection customers to demonstrate to the transmission provider that they are in active negotiations to meet the heightened site control requirements.¹¹⁰⁷

550. Some commenters highlight that the NOPR proposal may be problematic or challenging for interconnection customers of certain technology types or other circumstances where obtaining site control is difficult. Hydropower Commenters argue that most new hydropower facilities are sited at existing non-powered dams and therefore hydropower interconnection customers face unique challenges when it comes to obtaining site control.¹¹⁰⁸ The Ohio Commission Consumer Advocate asserts that the proposal may be problematic for interconnection customers in Ohio because a recent Ohio law permits Ohio counties to designate unincorporated areas in a county as an area in which the development of a renewable energy project is prohibited.¹¹⁰⁹

551. According to Enel, some states limit the duration of site control.¹¹¹⁰

Enel asserts that, if site control is near to expiring for any reason, whether due to state restriction or simply because the interconnection customer did not anticipate the length of interconnection or permitting processes, landowners can demand higher payments than agreed to in the original site control contract. Enel states that this can change the economics of a proposed generating facility and even make a proposed generating facility unprofitable, potentially leading to a late-stage interconnection request withdrawal.

552. Several commenters argue that the Commission should reject proposals to weaken the site control requirements proposed in the NOPR.¹¹¹¹ APPA–LPPC argue that EPSA’s and SEIA’s generalized complaints do not identify a specific obstacle created by the Commission’s proposal, and APPA–LPPC argue that SEIA’s proposal to scale back the site control requirement to not more than 75% was considered and rejected by MISO’s management and stakeholders over concerns that it may not be rigorous enough to mitigate the entry of speculative interconnection requests in the queue.¹¹¹²

(3) Deposits in Lieu of Site Control

553. Several commenters support the NOPR proposal to eliminate the option for interconnection customers to submit a deposit in lieu of site control except in limited circumstances for regulatory limitations.¹¹¹³ These commenters express that allowing deposits in lieu of site control is not sufficient to demonstrate readiness or deter speculative interconnection requests.¹¹¹⁴ PJM notes that, in its experience, the option to provide money in lieu of actual site control is easily abused by interconnection customers with speculative interconnection

requests.¹¹¹⁵ CAISO notes that its most recent cluster study was inundated by interconnection requests without site control because even a \$250,000 deposit in lieu of site control has not proven to be a deterrent for interconnection customers.¹¹¹⁶

554. Some commenters oppose the NOPR proposal and argue that the option to make deposits in lieu of site control should be available for all interconnection customers, not just those that demonstrate regulatory limitations.¹¹¹⁷ Avangrid believes that an at-risk deposit in lieu of site control that is set at a reasonable magnitude may be a good alternative to ensure that an interconnection customer is rigorously pursuing completion of a proposed generating facility.¹¹¹⁸ Pacific Northwest Utilities suggest that the Commission should allow transmission providers the flexibility to determine whether deposits in lieu of site control are applicable.¹¹¹⁹

(4) Site Control Considerations for Interconnection Customers With Regulatory Limitations

555. Some commenters contend that the Commission should modify the proposed definition of site control to reasonably accommodate interconnection customers developing generating facilities on sites owned or controlled by a government entity.¹¹²⁰ Several commenters highlight unique circumstances and challenges for obtaining site control on certain public lands and other regulatory issues that may affect an interconnection customer’s ability to demonstrate site control under the NOPR definition.¹¹²¹

556. Several commenters argue that the Commission should provide flexibility to allow transmission providers to establish site control requirements for generating facilities sited on Federal and public land.¹¹²²

¹¹¹¹ APPA–LPPC Reply Comments at 2–3; CREA and NewSun Initial Comments at 55; Indicated PJM TOs Reply Comments at 30; Ohio Commission Consumer Advocate Initial Comments at 11–12.

¹¹¹² APPA–LPPC Reply Comments at 4 (citing *Midcontinent Indep. Sys. Operator, Inc.*, 169 FERC ¶ 61,173, at P 9 (2019)).

¹¹¹³ AES Initial Comments at 15; APPA–LPPC Reply Comments at 4; CAISO Initial Comments at 16–17; CREA and NewSun Reply Comments at 50; Cypress Creek Initial Comments at 22; Dominion Initial Comments at 31; ENGIE Initial Comments at 4; EEI Initial Comments at 7–8; Eversource Initial Comments at 17; MISO Initial Comments at 57; NY Commission and NYSEDA Initial Comments at 8–9; NYTOs Initial Comments at 18–19; Ohio Commission Consumer Advocate Initial Comments at 12; SEIA Initial Comments at 15; Shell Initial Comments at 23; Tri-State Initial Comments at 13.

¹¹¹⁴ APPA–LPPC Initial Comments at 19; Bonneville Initial Comments at 11; Idaho Power Initial Comments at 7; PJM Initial Comments at 26; PPL Initial Comments at 16; Southern Initial Comments at 8–9; Xcel Initial Comments at 30, 32.

¹¹¹⁵ PJM Initial Comments at 26.

¹¹¹⁶ CAISO Initial Comments at 17.

¹¹¹⁷ Avangrid Initial Comments at 19; Clean Energy Associations Initial Comments at 32; CREA and NewSun Initial Comments at 55; Interwest Energy Alliance Reply Comments at 13.

¹¹¹⁸ Avangrid Initial Comments at 19.

¹¹¹⁹ Pacific Northwest Utilities Initial Comments at 3.

¹¹²⁰ PPL Initial Comments at 16; Tri-State Initial Comments at 14; Xcel Initial Comments at 31.

¹¹²¹ Clean Energy Associations Initial Comments at 33–34; CREA and NewSun Reply Comments at 47–49; Dominion Initial Comments at 31; ENGIE Initial Comments at 4; Hydropower Commenters Initial Comments at 14–18, 24–25; Idaho Power Initial Comments at 6–7; NV Energy Initial Comments at 15–16; Ørsted Initial Comments at 12; OSPA Initial Comments at 16–18; rPlus Initial Comments at 2–3.

¹¹²² Dominion Initial Comments at 32; Indicated PJM TOs Initial Comments at 26; Pacific Northwest

¹¹⁰⁴ AEE Initial Comments at 18.

¹¹⁰⁵ CREA and NewSun Initial Comments at 55; SEIA Initial Comments at 14–15.

¹¹⁰⁶ SEIA Initial Comments at 15.

¹¹⁰⁷ Pine Gate Initial Comments at 23–24. Pine Gate notes that this approach is similar to PJM’s where, if PJM accepts the interconnection customer’s demonstration, then PJM will add a condition precedent to the interconnection agreement requiring that all site control requirements be met within 180 days of execution.

¹¹⁰⁸ Hydropower Commenters Initial Comments at 13.

¹¹⁰⁹ Ohio Commission Consumer Advocate Initial Comments at 11.

¹¹¹⁰ Enel Initial Comments at 40.

Shell notes that securing site control can often be complicated by fast-changing local, county, and state regulations, and encourages the Commission to provide sufficient flexibility to enable transmission providers to make accommodations for local site control challenges.¹¹²³

557. Some commenters provide recommendations on how the Commission could clarify what may constitute a sufficient demonstration of site control for generating facilities being developed on land owned or controlled by a government entity.¹¹²⁴ Pattern Energy argues that interconnection customers proposing to develop generating facilities on land owned or managed by state, Federal, or Tribal government entities should be required to provide evidence that they submitted any required applications to the relevant government entity or entities in order to advance the development of their proposed generating facility. Pattern Energy states that such an interconnection request should provide for an exclusive right to advance the development of a generating facility, provided that the relevant government entity or entities allow for such an exclusive right.¹¹²⁵

558. PJM notes that the proposed site control requirements that PJM included in its interconnection queue reform filing with the Commission provide some leeway for generating facilities constructed on Federal or state lands or water, such as offshore wind projects.¹¹²⁶ Alternatively, Dominion requests that the Commission clarify that the deposit in lieu of site control exception would apply to offshore wind projects, in addition to other proposed generating facilities subject to similar government control that may prevent timely demonstration of site control.¹¹²⁷

559. Several commenters note that certain interconnection customers with generating facilities and interconnection facilities on land controlled by the Bureau of Land Management (BLM) face extended time frames for obtaining firm

site control.¹¹²⁸ For example, NV Energy states that the BLM permitting process can take between 18 months and 5 years.¹¹²⁹ Idaho Power states that BLM goes through various stages of review, but there is no specific stage that is indicative of an interconnection customer's request having firm site control until the permit is in hand, which can take up to three years to obtain.¹¹³⁰ Idaho Power states that, currently, interconnection customers with generating facilities on BLM lands typically reference the section of the site control definition that allows for "an exclusivity or other business relationship between interconnection customer and the entity having the right to sell, lease or grant interconnection customer the right to possess or occupy a site for such purpose."¹¹³¹ Idaho Power argues that generating facilities on land managed by BLM should have the same site control requirements as all other generating facilities, but that they would support an expanded and/or clarified definition of site control to capture the limitations of these generating facilities. Idaho Power states that, for example, site control evidence may include evidence that the necessary application has been received by the agency, is in process, and the agency has indicated the generating facility is permissible.

560. NV Energy proposes that the deposit in lieu of site control be used for lands that are federally managed, and that those deposits be held until the decision record, record of decision, notice to proceed, or right-of-way grant is issued for a generating facility, which NV Energy notes may not be until after the facilities study due to timing of the BLM process.¹¹³² To ensure the generating facility is progressing in the BLM process, NV Energy also proposes that the interconnection customer be required to submit with its interconnection request a schedule of the land rights and permitting as well as documentation from BLM that the draft environmental assessment or draft environmental impact statement is expected to be completed by issuance of the system impact study. NV Energy also proposes that interconnection customers be required to provide the administrative draft environmental assessment or draft environmental impact statement to the transmission

provider for review and comment once BLM has issued it to ensure its interconnection facilities are included in the right-of-way that BLM will issue.

561. CREA and NewSun encourage the Commission to modify its proposed site control requirements, such that an interconnection customer developing generating facilities on public lands is allowed to proceed with the interconnection process if it can demonstrate that the relevant public agency has received and has agreed to process the necessary permits to develop the interconnection customer's proposed generating facility.¹¹³³

562. For generating facilities on Bureau of Reclamation lands, Hydropower Commenters argue that a lease of power privilege should be considered a sufficient demonstration of site control.¹¹³⁴ Additionally, Hydropower Commenters note that generating facilities under a certain size can obtain an exemption from Commission licensing requirements, and they argue that an exemption from licensing should also be considered a sufficient demonstration of site control. Similarly, Hydropower Commenters argue that developers of pumped storage projects on U.S. Forest Service or BLM lands should not be required to complete the required Federal Land Policy and Management Act process before they can be considered to have demonstrated sufficient evidence of site control.¹¹³⁵ Hydropower Commenters contend that such generating facilities should be allowed to demonstrate site control by submitting evidence that they have a permit application pending with U.S. Forest Service or BLM.

563. Some commenters argue that the 100% site control requirement should not apply to generating facilities being developed on Tribal lands.¹¹³⁶ OSPA claims that development on Tribal land is more challenging than other kinds of development because Tribes have three different classes of land that have different ownership structures and regulatory restrictions, including "Trust" land, which is held by the Federal Government on behalf of Tribes and regulated by the Bureau of Indian Affairs.¹¹³⁷ OSPA notes that Tribes' Reservations are often "checker-boarded" with the three different classes of land, and that large wind generating facilities will necessarily be sited on all three classes of land. OSPA argues that

Utilities Initial Comments at 3; PJM Initial Comments at 31; Shell Initial Comments at 23.

¹¹²³ Shell Initial Comments at 23.

¹¹²⁴ *Id.* at 22–23; CREA and NewSun Reply Comments at 50; Equinor Reply Comments at 4; Hydropower Commenters Initial Comments at 15–18; Idaho Power Initial Comments at 7; Indicated PJM TOs Reply Comments at 31; Ørsted Initial Comments at 12–13; Ørsted Reply Comments at 2, 4–5; OSPA Initial Comments at 18; Pattern Energy Initial Comments at 30; rPlus Initial Comments at 3–4.

¹¹²⁵ Pattern Energy Initial Comments at 30.

¹¹²⁶ PJM Initial Comments at 29–30, 32; *see PJM Interconnection, L.L.C.*, 181 FERC ¶ 61,162 at PP 83–105.

¹¹²⁷ Dominion Initial Comments at 32.

¹¹²⁸ CREA and NewSun Reply Comments at 49; Idaho Power Initial Comments at 6; NV Energy Initial Comments at 16.

¹¹²⁹ NV Energy Initial Comments at 16.

¹¹³⁰ Idaho Power Initial Comments at 6–7.

¹¹³¹ *Id.*

¹¹³² NV Energy Initial Comments at 17.

¹¹³³ CREA and NewSun Reply Comments at 50.

¹¹³⁴ Hydropower Commenters Initial Comments at 16–17.

¹¹³⁵ *Id.* at 25.

¹¹³⁶ OSPA Initial Comments at 16; rPlus Initial Comments at 2.

¹¹³⁷ OSPA Initial Comments at 17.

securing Bureau of Indian Affairs regulatory approvals can take years and that the ownership structure of “Allotted” lands can make it even difficult to expediently obtain consent from all owners to lease certain tracts, which is required as part of the Bureau of Indian Affairs process.¹¹³⁸

564. OSPA proposes that, for Tribes and Tribal Energy Development Organizations, the Commission clarify that interconnection queue positions may be secured if the Tribe has signed a lease, even if the Bureau of Indian Affairs has not issued a final approval.¹¹³⁹ Similarly, rPlus recommends that the filing of a valid preliminary permit application with the Commission satisfy the site control requirement for a pumped storage project and for generating facilities on Tribal lands.¹¹⁴⁰ rPlus notes that suitable pumped storage sites are limited in availability and are increasingly located on public or Tribal lands, which involve significant environmental review. rPlus notes that pumped storage projects located on Federal and Tribal lands generally cannot achieve full site control until Federal environmental reviews are complete and the Commission issues a license. For circumstances where a pumped storage project does not require a Commission license, rPlus requests that the site control requirement be only 50% of the land needed for the core generating facility.¹¹⁴¹

565. Several commenters state that the proposed site control requirements may present challenges for offshore wind projects, which face extensive permitting timelines.¹¹⁴² Clean Energy Associations argue that the formal issuance of a public lease often requires multiple preliminary stages and major financial commitments from interconnection customers and that requiring a lease prior to entering the interconnection queue would unduly delay generating facilities on public lands.¹¹⁴³ Ørsted and Clean Energy Associations further explain that the permitting process for an offshore wind farm often involves multiple Federal and state agencies and runs concurrently with the interconnection process. Ørsted and Clean Energy Associations note that the permitting

process can lead to changes in the generating facility layout within a lease area, routing of offshore cables, siting of onshore cable landing, routing of onshore cables, and siting of the interconnection switchyard.¹¹⁴⁴

566. Shell, Dominion, and CREA and NewSun argue that the high cost of market entry for offshore wind projects is a substantial financial commitment and that such generating facilities are by their very nature not speculative.¹¹⁴⁵ Shell argues that offshore wind generation should be able to demonstrate site control by showing evidence of commitments to purchase offshore lease areas from BOEM, as commitments often demand hundreds of millions of dollars.¹¹⁴⁶

567. CREA and NewSun contend that the site control requirements in the NOPR would require an offshore developer to win a competitive solicitation or obtain a term sheet from an off-taker before entering the interconnection queue, which at best will add years of delay to developing these generating facilities and at worst will kill the proposals outright due to a lack of information on interconnection feasibility and cost.¹¹⁴⁷

568. MISO notes that it has not interpreted its tariff to mean that a BOEM-administered Wind Energy Area auction that an offshore wind interconnection customer can participate in, but which will occur after the close of an application window, is a regulatory restriction.¹¹⁴⁸ MISO is concerned that broadening the regulatory restriction interpretation to allow for offshore wind to submit an interconnection request in such instances would enable speculative interconnection requests, which will result in withdrawals, restudies, uncertainty, and study delays. MISO states that interconnection customers that seek to develop a generating facility on government owned lands that are awarded to the winner of an auction, and interconnection customers that seek to develop a generating facility on private land, are held to the same standard in the MISO process.

569. Some commenters request that “regulatory limitations” be more clearly defined.¹¹⁴⁹ CAISO expresses concern

that, absent clarification, the regulatory limitation provision will leave transmission provider staff as adjudicators of whether obtaining site control is possible for each proposed generating facility, and interconnection staff are not experts on real property law or public permitting requirements.¹¹⁵⁰ CAISO and Indicated PJM TOs argue that without further clarification, the regulatory limitation provision may be interpreted too broadly and interconnection customers could argue site control was impossible where it was simply impractical or expensive.¹¹⁵¹ CAISO suggests, as an example, that the Commission could limit “regulatory limitations” only to apply to interconnection customers sited in offshore areas, public lands, and Tribal lands.¹¹⁵²

570. Several parties support the NOPR proposal to allow interconnection customers with regulatory limitations to submit a deposit in lieu of site control.¹¹⁵³ For projects on government lands, Indicated PJM TOs argue that the interconnection customer should be allowed to enter and remain in the interconnection queue, with a deposit in lieu of site control, if they identify the steps needed to achieve site control and show how they are exercising due diligence to obtain a final government determination.¹¹⁵⁴ Indicated PJM TOs argue that the regulatory limitations exception should be limited to just government lands.

571. MISO supports such an option specifically when the interconnection customer is prevented from obtaining site control by a regulatory restriction that the passage of time itself will not cure (e.g., while participating in an auction that occurs after the interconnection request deadline can be cured by time, a requirement to obtain an LGIA to participate in an auction cannot be cured by time).¹¹⁵⁵

572. Tri-State suggests modifying section 3.4.[1]2 of the *pro forma* LGIP so that the site control for state or federally controlled land must still be fully attained at the time of LGIA execution.¹¹⁵⁶ For example, Tri-State states that in Colorado, a state land planning lease (which does not meet the Commission’s proposed definition of

¹¹³⁸ *Id.* at 17–18.

¹¹³⁹ *Id.* at 18.

¹¹⁴⁰ rPlus Initial Comments at 2–3.

¹¹⁴¹ *Id.* at 4.

¹¹⁴² Clean Energy Associations Initial Comments at 33; CREA and NewSun Reply Comments at 48; Dominion Initial Comments at 31; Ørsted Initial Comments at 12.

¹¹⁴³ Clean Energy Associations Initial Comments at 33.

¹¹⁴⁴ *Id.* at 33–34; Ørsted Initial Comments at 12.

¹¹⁴⁵ CREA and NewSun Reply Comments at 48; Dominion Initial Comments at 31; Shell Initial Comments at 22.

¹¹⁴⁶ Shell Initial Comments at 22.

¹¹⁴⁷ CREA and NewSun Reply Comments at 48.

¹¹⁴⁸ MISO Initial Comments at 55.

¹¹⁴⁹ APS Initial Comments at 14; CAISO Initial Comments at 17; EEI Initial Comments at 7–8; NYISO Initial Comments at 22; PG&E Reply Comments at 2; Indicated PJM TOs Initial Comments at 26–27; Shell Reply Comments at 24.

¹¹⁵⁰ CAISO Initial Comments at 17 & n.29.

¹¹⁵¹ *Id.* at 17; Indicated PJM TOs Initial Comments at 26–27, 31.

¹¹⁵² CAISO Initial Comments at 17.

¹¹⁵³ APPA–LPPC Initial Comments at 3–4; Cypress Creek Initial Comments at 22; SEIA Initial Comments at 15–16; NY Commission and NYSERDA Initial Comments at 8–9.

¹¹⁵⁴ Indicated PJM TOs Reply Comments at 31.

¹¹⁵⁵ MISO Initial Comments at 57.

¹¹⁵⁶ Tri-State Initial Comments at 13, 27.

site control) could be used with a financial deposit during the cluster study process, and a state land production lease (which does meet the Commission's proposed definition of site control) would be needed prior to LGIA execution.¹¹⁵⁷

573. APPA–LPPC argue that, if the NOPR proposal is adopted, at a minimum, the interconnection customer should be required to provide an affidavit from a company officer, a detailed explanation, and documentation justifying the proposed regulatory limitation exception and to demonstrate 100% site control as soon as possible after the generator interconnection request is submitted, and certainly prior to the facilities study stage, as the NOPR proposes.¹¹⁵⁸ PPL contends that, while additional flexibility for interconnection customers that face regulatory limitation may be appropriate in the early stages of review, the Commission should require that full site control be demonstrated before proceeding to an LGIA.¹¹⁵⁹

574. A number of commenters oppose the NOPR's proposed option to allow deposits in lieu of site control where Federal or state regulatory limitations prohibit the interconnection customer from obtaining site control.¹¹⁶⁰ Idaho Power argues that any allowance of a deposit must be accompanied by some evidence of achieving site control.¹¹⁶¹ APS asserts that speculative interconnection requests do not necessarily have financial limitations and extra deposits would not act as the same deterrent as requiring 100% site control; therefore, APS requests that the Commission not allow an exception for regulatory restrictions.¹¹⁶²

575. OSPA argues that requiring interconnection customers that face regulatory barriers to submit any deposits, including deposits in lieu of site control, will create insuperable barriers to renewable energy development by Native American Tribes and Tribal Energy Development Organizations on Tribal lands,¹¹⁶³ stating that Tribes have limited access to

capital and face other challenges that large developers do not share.¹¹⁶⁴

576. A few commenters support the proposed amounts for the deposit in lieu of site control.¹¹⁶⁵ MISO agrees that the proposed deposit thresholds are sufficient, noting that the amount of the deposits under MISO's tariff are the same amounts the Commission proposed in the NOPR.¹¹⁶⁶ Tri-State contends that the proposed deposit amounts would be sufficient to ensure advanced-stage interconnection requests are able to continue to move toward interconnection.¹¹⁶⁷

577. Several parties support a deposit in lieu of site control high enough to deter speculative interconnection requests that are unlikely to achieve site control.¹¹⁶⁸ Avangrid argues that any deposit in lieu of site control should be proportionate to the size of the interconnection request, and “reflect collateral” while an interconnection customer works through site control agreements.¹¹⁶⁹ Eversource similarly argues that the Commission should set the deposit so that the interconnection customer fully internalizes the risk of failing to obtain site control.¹¹⁷⁰ Tri-State also argues that the deposit should not apply to interconnection study costs.¹¹⁷¹

578. Some commenters provide alternative suggestions for the deposit in lieu of site control amounts.¹¹⁷² Longroad Energy argues that the Commission should consider requiring that such deposits be set as a multiple of the interconnection study deposit (such as three times the deposit amount), rather than as a dollar amount per MW of generating facility size, as proposed in the NOPR.¹¹⁷³ NYTOs argue that the MW capacity of a generating facility is not necessarily relevant to determining the appropriate deposit requirement and that deposits should be more closely tied to the generating facility's potential impact on the interconnection process.¹¹⁷⁴

579. A number of entities argue that any deposits in lieu of site control should be non-refundable.¹¹⁷⁵ Avangrid suggests that the deposit be non-refundable to avoid gaming by prospective interconnection customers.¹¹⁷⁶ National Grid argues that absent circumstances outside the control of the interconnection customer, any deposit should be non-refundable, and any security should be able to be drawn upon in the event the interconnection customer withdraws or fails to demonstrate site control at the required time.¹¹⁷⁷ National Grid contends that if the Commission intends to permit refunds or returns of a deposit in lieu of site control, such deposits should be provided only after deducting the actual costs and fees, *e.g.*, escrow account initiation and maintenance fees, incurred by the transmission provider or RTOs/ISOs prior to the time of the withdrawal request or the demonstration of site control. National Grid also requests that the Commission clarify that withdrawal penalties are separate and may be deducted from the deposit amount.

580. Similarly, Longroad Energy suggests that to ensure that the proper incentives exist, the Commission may wish to evaluate if a security deposit in lieu of site control should become non-refundable if an interconnection customer withdraws at any point in the interconnection process or fails to achieve commercial operation.¹¹⁷⁸ EEI argues that the Commission can further reduce potential risks by making deposits non-refundable, or if the Commission declines to do so, it should ensure that withdrawal penalties are significant enough to discourage speculative interconnection requests.¹¹⁷⁹ On the other hand, NYTOs argue that regions should have the flexibility to determine whether, under certain circumstances, deposits should become fully non-refundable.¹¹⁸⁰

581. Xcel argues that in addition to requiring a deposit, interconnection customers facing regulatory limitations should be required to provide status updates to the transmission provider, and there should be sufficient penalties to ensure interconnection customers provide accurate information on the

¹¹⁵⁷ *Id.* at 13.

¹¹⁵⁸ APPA–LPPC Initial Comments at 20.

¹¹⁵⁹ PPL Initial Comments at 16.

¹¹⁶⁰ APPA–LPPC Initial Comments at 19; APS Initial Comments at 14; Bonneville Initial Comments at 11; Idaho Power Initial Comments at 7; Indicated PJM TOs Initial Comments at 11; Indicated PJM TOs Reply Comments at 31; PJM Initial Comments at 26; PPL Initial Comments at 16; Southern Initial Comments at 9; SPP Initial Comments at 10; Xcel Initial Comments at 30, 32.

¹¹⁶¹ Idaho Power Initial Comments at 7.

¹¹⁶² APS Initial Comments at 14.

¹¹⁶³ OSPA Initial Comments at 18.

¹¹⁶⁴ OSPA Reply Comments at 12.

¹¹⁶⁵ MISO Initial Comments at 57; NV Energy Initial Comments at 15; Tri-State Initial Comments at 13.

¹¹⁶⁶ MISO Initial Comments at 57.

¹¹⁶⁷ Tri-State Initial Comments at 13.

¹¹⁶⁸ *Id.* at 14; Avangrid Initial Comments at 19; ENGIE Initial Comments at 4; GSCE Initial Comments at 7; NYTOs Initial Comments at 19; Pacific Northwest Utilities Initial Comments at 3–4.

¹¹⁶⁹ Avangrid Initial Comments at 19.

¹¹⁷⁰ Eversource Initial Comments at 17.

¹¹⁷¹ Tri-State Initial Comments at 14.

¹¹⁷² Eversource Initial Comments at 17; Longroad Energy Initial Comments at 12; NYTOs Initial Comments at 19.

¹¹⁷³ Longroad Energy Initial Comments at 12; Longroad Energy Reply Comments at 18.

¹¹⁷⁴ NYTOs Initial Comments at 19.

¹¹⁷⁵ Avangrid Initial Comments at 19; EEI Initial Comments at 8; Longroad Energy Initial Comments at 12; National Grid Initial Comments at 23; NYTOs Initial Comments at 19.

¹¹⁷⁶ Avangrid Initial Comments at 19.

¹¹⁷⁷ National Grid Initial Comments at 23–24.

¹¹⁷⁸ Longroad Energy Initial Comments at 12.

¹¹⁷⁹ EEI Initial Comments at 8.

¹¹⁸⁰ NYTOs Initial Comments at 19.

status of regulatory proceedings.¹¹⁸¹ Xcel contends that, if regulatory limitations prohibit an interconnection customer from obtaining site control, transmission providers should be allowed to propose constructs that facilitate interconnection, including the ultimate achievement of site control.

(c) Miscellaneous

582. Public Interest Organizations argue that it is unreasonable that the *pro forma* LGIP allows interconnection customers to propose a decrease to the generating facility's output of up to 60% without losing queue position while also requiring a demonstration of 100% site control upon entering the interconnection queue.¹¹⁸² Public Interest Organizations also argue that the NOPR proposal to require interconnection customers to remedy any change in site control within 10 days or have their interconnection request withdrawn is unreasonable. In addition, Public Interest Organizations argue that it is unduly discriminatory to allow interconnection customers proposing a thermal project to keep their queue position by downsizing the generating facility's turbines but not allow interconnection customers proposing wind generating facilities to keep their queue position if they lose part of a lease. Public Interest Organizations argue that the cure period should be long enough to allow for routine events that affect site control, such as the death of a landowner or the change of ownership at a commercial facility hosting a proposed generating facility.

iii. Commission Determination

583. As discussed herein, we adopt in part and modify in part the NOPR proposal to revise sections 1, 3.4.2, 7.5, 8.1, and 11.3 of the *pro forma* LGIP and Appendix B of the *pro forma* LGIA to add more stringency to the site control requirements and to help prevent speculative interconnection requests from entering the interconnection queue. We believe that, taken together, these reforms will help ensure that commercially viable interconnection requests with demonstrated site control or with demonstrated regulatory limitations will be able to enter the interconnection queue, thereby reducing the negative impacts of speculative interconnection requests.

(a) Definition and Reasonable Evidence of Site Control

584. We adopt the NOPR proposal to revise the definition of site control in section 1 of the *pro forma* LGIP with several modifications. As modified, the definition states that site control may be demonstrated by documentation establishing: “(1) ownership of, a leasehold interest in, or a right to develop a site of sufficient size to construct and operate the Generating Facility; (2) an option to purchase or acquire a leasehold site of sufficient size to construct and operate the Generating Facility; or (3) any other documentation that clearly demonstrates the right of Interconnection Customer to exclusively occupy a site of sufficient size to construct and operate the Generating Facility.” Additionally, we agree with commenters' observations¹¹⁸³ that subpart (3) of the *pro forma* LGIP definition of site control proposed in the NOPR, which stated “site of sufficient size to construct and operate the Generating Facility,” was duplicative; therefore, we modify the NOPR proposal to delete this subpart and provide clarification that all three remaining, enumerated options to demonstrate site control require control of a site of sufficient size to construct and operate the generating facility or multiple generating facilities on a shared site.

585. To prevent multiple interconnection customers from leasing the same site in order to remain in the interconnection queue, we adopt the NOPR's proposed revisions to the *pro forma* LGIP that require an interconnection customer to demonstrate the exclusive land right to develop, construct, operate, and maintain its generating facility or, where facilities are co-located, to demonstrate a shared land use right to develop, construct, operate, and maintain co-located facilities. We further clarify that the right to “exclusively” occupy the site to develop, construct, operate, or maintain a generating facility means both that the right belongs solely to the interconnection customer (no other entity shares the right to use the site for those purposes), as well as that the right is solely for purposes of a single interconnection request. We find that an interconnection customer securing the exclusive land right necessary to construct its proposed generating facility (or for co-located generating facilities, demonstration of shared land use) is sufficient evidence of the

interconnection customer's commitment to construct the generating facility.

586. We also modify section 3.4.2 of the *pro forma* LGIP to provide that site control for a generating facility that is co-located with one or more generating facilities on the same site and behind the same point of interconnection must be demonstrated by a contract or other agreement that allows for shared land use for all generating facilities that are co-located that meet the provisions of the site control definition. We clarify that interconnection customers are prohibited from submitting evidence of site control that uses the same land for multiple interconnection requests, unless the site is large enough to host multiple generating facilities. We note that section 3.4.2 of the *pro forma* LGIP that we adopt in this final rule permits shared land use for co-located generating facilities on the same site and behind the same point of interconnection, and we clarify below that transmission providers have flexibility to establish appropriate technology-specific acreage requirements for generating facilities.¹¹⁸⁴ Permitting multiple interconnection requests to use the same land to demonstrate exclusive site control would inherently result in at least one commercially non-viable interconnection request entering the interconnection queue and thus would be insufficient to ensure that interconnection customers are able to interconnect to the transmission system in a reliable, efficient, transparent, and timely manner. We also clarify that the interconnection customer is required to meet the technology-specific acreage requirement for its generating facility that is publicly posted by the transmission provider at the time it submits its interconnection request.

587. Likewise, in response to Enel, we clarify that the term “exclusive land rights” in the definition of site control applies only to the exclusivity required to develop, construct, operate, and maintain the interconnection customer's proposed generating facility; the term “exclusive land rights” does not restrict multi-use applications of the site in addition to its use for the generating facility, such as agriculture, ranching, etc.¹¹⁸⁵ Similarly, in response to Cypress Creek, we clarify that a land right does not involve zoning approval.

¹¹⁸⁴ This is consistent with the practice that several transmission providers currently follow. See *Midcontinent Indep. Sys. Operator, Inc.*, 169 FERC ¶ 61,173 at P 48; *Sw. Power Pool, Inc.*, 128 FERC ¶ 61,114 at P 48; *PJM Interconnection, L.L.C.*, 181 FERC ¶ 61,162 at P 102.

¹¹⁸⁵ See Enel Initial Comments at 42.

¹¹⁸¹ Xcel Initial Comments at 30–31.

¹¹⁸² Public Interest Organizations Initial Comments at 27–28.

¹¹⁸³ See Enel Initial Comments at 82; Southern Initial Comments at 34–35.

588. In response to commenters,¹¹⁸⁶ we further clarify that the adopted definition of site control permits an interconnection customer to demonstrate site control with lease options, instead of executed leases, provided that the interconnection customer is the exclusive holder of such a lease option(s). The adopted definition explicitly provides for such a lease option, by including the phrase, “an option to purchase or acquire a leasehold site.” However, evidence of active negotiations for a lease is not a sufficient demonstration of site control at any time during the interconnection process. Allowing active negotiations for a lease to serve as a demonstration of site control, as some commenters suggest,¹¹⁸⁷ would allow speculative, commercially non-viable interconnection requests to proceed through the interconnection queue, which would be inconsistent with ensuring that interconnection customers are able to interconnect to the transmission system in a reliable, efficient, transparent, and timely manner. Likewise, with respect to NRECA’s request,¹¹⁸⁸ we clarify that this final rule permits leases and lease options as sufficient evidence of site control as discussed above, and transmission providers have discretion to evaluate the content of such leases and lease options and any conditions contained therein to determine whether they sufficiently demonstrate site control.

589. Several commenters seek clarification as to whether the proposed *pro forma* LGIP definition of site control would allow certain types of generating facilities developed on lands owned or controlled by a government entity to demonstrate site control. We agree with commenters that offshore wind interconnection customers must make a substantial financial commitment to win a competitive auction and secure a lease from BOEM, and such generating facilities that have secured a lease agreement are not speculative.¹¹⁸⁹ We therefore clarify that a lease agreement with BOEM to pursue development of an offshore wind generating facility can serve as a sufficient demonstration of site control under the site control definition adopted in this final rule. This clarification is consistent with our finding above that a variety of lease

options satisfy the site control requirement. In response to MISO’s concerns about allowing multiple offshore wind interconnection customers to submit an interconnection request for the same “Wind Energy Area” before it has been auctioned by BOEM, we find that the *pro forma* LGIP site control definition that we adopt herein appropriately limits such potentially speculative interconnection requests by requiring offshore wind interconnection customers to provide evidence of an exclusive right to develop a lease area to satisfy the site control requirements.

590. With respect to OSPA’s concerns regarding the challenges of demonstrating site control on Tribal lands due to the nature of land ownership on Reservations and the need for the Bureau of Indian Affairs to approve certain leases, we clarify that under the site control definition, interconnection customers developing generating facilities on Tribal lands can demonstrate site control with a signed lease agreement with the applicable Tribe-owner.¹¹⁹⁰ As discussed below in section III.A.6.b.iii.b, an interconnection customer with a demonstrated regulatory limitation, including those associated with obtaining a lease on Tribal lands, may submit a deposit in lieu of site control.

591. Similarly, in response to commenters’ concerns about demonstrating site control for hydropower projects on sites owned or controlled by a government entity, we clarify that certain documentation can be used to demonstrate site control under the *pro forma* LGIP definition of site control. For interconnection customers developing generating facilities at non-powered dams, we clarify that a FERC license¹¹⁹¹ can serve as a demonstration of site control under subpart (3). However, we also clarify that neither a Memorandum of Agreement with the U.S. Army Corps of Engineers regarding a proposed hydropower project at a U.S. Army Corps of Engineers dam nor a preliminary permit for a pumped storage project or other hydropower generating facility to be located on Tribal lands would be sufficient to demonstrate site control because we do not have enough information in this record to determine that such

documentation provides sufficient evidence of the interconnection customer’s exclusive right to occupy a site of sufficient size to construct and operate a generating facility.

592. For hydropower projects that are not subject to the Commission’s hydropower permitting jurisdiction, such as projects on Bureau of Reclamation lands, we clarify that a lease of power privilege can serve as a demonstration of site control under the site control definition. Finally, for hydropower projects that are small enough to be exempted from FERC licensing requirements, Hydropower Commenters explain that an exemption from FERC licensing provides an exclusive right to the recipient to develop a project at the site and the exemption is issued in perpetuity.¹¹⁹² Because such an exemption includes an exclusive right to develop, we clarify that providing a written statement as evidence of an exemption from licensing under the FPA can serve as a demonstration of site control under subpart (3) of the site control definition.

593. We note NV Energy’s explanation that its previous efforts to allow interconnection customers to demonstrate site control by showing a draft preliminary plan of development, one of the earlier required documents in the BLM permitting process, have led to speculative interconnection requests that slow down the interconnection process.¹¹⁹³ We agree, and we therefore decline to adopt commenters’ proposal to modify the proposed *pro forma* LGIP definition of site control to allow interconnection customers to demonstrate site control by providing documentation indicating that they are pursuing the necessary permits with the appropriate government entity or entities.¹¹⁹⁴ As with our finding that active negotiations for lease agreements are not sufficient to demonstrate site control, discussed above, we find that such an expansion of the site control definition could weaken the site control requirements included in the *pro forma* LGIP and could undermine the effectiveness of this reform in helping to prevent speculative interconnection requests.

(b) Site Control Demonstration and Deposits in Lieu of Site Control

594. We adopt the NOPR proposal, with modification, to revise section 3.4.2 of the *pro forma* LGIP to require

¹¹⁸⁶ Omaha Public Power Initial Comments at 7; SoCal Edison Initial Comments at 6.

¹¹⁸⁷ EPSA Initial Comments at 8; Interwest Reply Comments at 13.

¹¹⁸⁸ NRECA Initial Comments at 27.

¹¹⁸⁹ CREA and NewSun Reply Comments at 48; Dominion Initial Comments at 31; Shell Initial Comments at 22.

¹¹⁹⁰ OSPA Initial Comments at 17–18.

¹¹⁹¹ A FERC license provides the licensee with the power of eminent domain to secure property rights needed to construct and operate the project. See 16 U.S.C. 814. While a FERC license does not explicitly convey an exclusive right to develop a project, the Commission does not approve more than one license for the same site.

¹¹⁹² Hydropower Commenters Initial Comments at 17.

¹¹⁹³ NV Energy Initial Comments at 15–16.

¹¹⁹⁴ See CREA and NewSun Reply Comments at 50; Pattern Energy Initial Comments at 30.

interconnection customers to demonstrate site control at the time of submission of the interconnection request. However, we modify the proposal and require interconnection customers to provide evidence of 90% site control for the generating facility at the time of submission of the interconnection request and, pursuant to revised sections 8.1 and 11.3 of the *pro forma* LGIP, provide evidence of 100% site control for the generating facility at the time of execution of the facilities study agreement and when executing, or requesting the unexecuted filing of, the LGIA.

595. We decline to adopt the NOPR proposal to require technology-specific acreages to be listed in the transmission provider's tariff. As discussed below, instead, we require transmission providers to establish acreage requirements for each generating facility technology type and to publicly post these acreage requirements. We adopt the following aspects of the NOPR proposal to revise sections 3.4.2 and 11.3 of the *pro forma* LGIP to: (1) eliminate the option to provide a deposit in lieu of site control demonstration except in limited circumstances where an interconnection customer demonstrates a regulatory limitation to obtaining site control, as discussed below, and eliminate the option to post \$250,000 of non-refundable security in lieu of site control at LGIA execution; and (2) require that interconnection customers that could not demonstrate the requisite level of site control at the relevant milestone of the interconnection process (i.e., 90% for the cluster study and cluster restudy, and 100% for the interconnection facilities study and when executing, or requesting the unexecuted filing of, the LGIA) would have their interconnection request deemed withdrawn and could be subject to withdrawal penalties under certain circumstances, as discussed below.

596. We adopt the NOPR proposal to revise sections 3.4.2, 7.5 and 8.1 of the *pro forma* LGIP such that, after notifying the transmission provider of any change to the interconnection customer's site control demonstration, the transmission provider must give the interconnection customer 10 business days to demonstrate satisfaction with the applicable requirement. We find the adopted approach to require 90% site control at the time of the interconnection request and 100% site control at the time of the facilities study and when executing, or requesting the unexecuted filing of, the LGIA appropriately balances the concerns identified in the record. In particular,

we find that it will provide sufficiently stringent site control requirements to help prevent interconnection customers from submitting interconnection requests for speculative, commercially non-viable proposed generating facilities, while accommodating development challenges faced by interconnection customers that may otherwise present unjust and unreasonable barriers to entering the interconnection queue. We believe that this approach appropriately recognizes that issues often arise in developing a generating facility, such that requiring a demonstration of 90% site control at the time of the interconnection request, rather than 100%, provides valuable flexibility for interconnection customers with viable prospective generating facilities to resolve those issues and continue through the interconnection process.

597. We are persuaded by commenters that contend that there are significant benefits to allowing interconnection customers to enter the cluster study process and potentially use the interconnection study results to better understand their generating facility configuration before obtaining 100% site control. We agree with commenters that allowing less than 100% site control at the interconnection request stage would provide interconnection customers flexibility to address the results of interconnection studies or other regulatory processes¹¹⁹⁵ and afford flexibility for interconnection customers that are still actively negotiating with landowners close to the deadline for a cluster request window.¹¹⁹⁶ Establishing a requirement for 90% site control at the time of an interconnection request allows an interconnection request to be submitted even if a few parcels of land are still in negotiation or where a different site configuration arises based on the scoping meeting with the transmission provider. Moreover, the adopted approach provides flexibility for interconnection customers to sign certain leases for particularly challenging parcels at a later point in time, reducing the exposure to risk of expiration of those leases.¹¹⁹⁷ Additionally, we agree with commenters that shifting the 100% site control requirement until the execution of a facilities study agreement allows the interconnection customer to put less money at risk for obtaining particularly challenging land rights and to obtain a

more meaningful understanding of what upgrade costs its generating facility may be assigned, for instance, from the cluster study report that is provided before the execution of the facilities study agreement.¹¹⁹⁸

598. At the same time, we believe that the approach adopted in this final rule, along with the other reforms adopted herein, is sufficiently stringent to help prevent speculative, commercially non-viable proposed generating facilities from entering and continuing through the interconnection queue. As an initial matter, we establish a more stringent requirement for site control at the time of submission of an interconnection request than required by the *pro forma* LGIP prior to this final rule. In particular, obtaining nearly all of the land rights necessary to develop a proposed generating facility prior to submitting the interconnection request entails a significant commitment, both financial and in terms of the time and resources required to negotiate with landowners. Moreover, the 100% site control requirement at the time of the execution of the facilities study agreement adds further stringency to ensure generating facilities that proceed through the interconnection queue are the most likely to be commercially viable.

599. We agree with commenters that requiring 100% site control at the time of submission of an interconnection request may not be compatible with the project development cycle,¹¹⁹⁹ which includes stringent permitting requirements, and may disadvantage certain interconnection customers despite there being a path to full site control and commercial readiness.¹²⁰⁰ Further, requiring 100% site control at submission of the interconnection request would not allow for minor revisions to the generating facility plan if, upon meeting with the transmission provider at the scoping meeting, such revisions would facilitate an improved generating facility design. This could present a barrier to entry for interconnection customers with viable proposed generating facilities.

600. We decline to adopt commenters' suggestions that transmission providers be allowed to confirm site control

¹¹⁹⁸ AEE Initial Comments at 18; Clean Energy Associations Initial Comments at 31–32; CREA and NewSun Initial Comments at 55; Cypress Creek Initial Comments at 22; SEIA Initial Comments at 15; Shell Reply Comments at 23–24.

¹¹⁹⁹ AEE Initial Comments at 17; CREA and NewSun Initial Comments at 54; Clean Energy Associations Initial Comments at 31; Cypress Creek Initial Comments at 22; EPSA Initial Comments at 8; NextEra Initial Comments at 21; R Street Initial Comments at 8.

¹²⁰⁰ AEE Initial Comments at 17.

¹¹⁹⁵ See CREA and NewSun Initial Comments at 55; SEIA Initial Comments at 14–15.

¹¹⁹⁶ See Pine Gate Initial Comments at 23–24.

¹¹⁹⁷ Enel Initial Comments at 40.

throughout the interconnection process.¹²⁰¹ The adopted site control requirements require site control demonstrations at three specific points in the interconnection process—submission of the interconnection request; at the time of execution of the facilities study agreement; and when executing, or requesting the unexecuted filing of, an LGIA. We find that these points are sufficient to help prevent interconnection customers with commercially non-viable interconnection requests from entering and proceeding through the interconnection queue.

601. With respect to eliminating the option for any interconnection customer to submit a deposit in lieu of site control, except in limited circumstances where an interconnection customer demonstrates a regulatory limitation, we find that, because a deposit in lieu of site control does not demonstrate that an interconnection customer has the exclusive right to develop a site, it does not indicate that an interconnection customer is ready to proceed with construction and commercial operation of the generating facility. As a result, we believe that allowing deposits in lieu of site control for all interconnection customers, as requested by some commenters, would not help to prevent speculative, commercially non-viable interconnection requests from entering the interconnection queue. Thus, we decline to include such an option in the *pro forma* LGIP.

602. We are persuaded by commenters that requiring transmission providers to publicly maintain per MW acreage requirements for each generating facility technology type is necessary to afford adequate transparency and certainty to interconnection customers. At the same time, we do not believe that such acreage requirements must be contained within transmission providers' tariffs; rather, we find that, consistent with the rule of reason, transmission providers may choose to maintain acreage requirements in their business practice manuals or may otherwise post them on a publicly accessible website. We find that acreage requirements are properly classified as implementation details that do not significantly affect rates, terms, and conditions of service,¹²⁰² and we therefore do not require their inclusion in tariffs. This is consistent with previous Commission orders approving transmission providers' proposals to

specify technology-specific acreage requirements for site control in their business practice manuals.¹²⁰³ This will also afford transmission providers more flexibility in updating acreage requirements to account for technological advancements without being required to make FPA section 205 filings each time they seek to modify the acreage requirements. On the other hand, to give the interconnection customer certainty, as noted above, we clarify that the interconnection customer is required to meet the technology-specific acreage requirement for its generating facility publicly posted by the transmission provider at the time it submits its interconnection request.

603. To provide clarity for interconnection customers and transmission providers, we modify the *pro forma* LGIP definition of "Generating Facility" to replace "device" with "device(s)" to clarify that this definition includes hybrid generating facilities.¹²⁰⁴ We believe this clarification is necessary to ensure that hybrid generating facilities have the same rights and responsibilities as other types of generating facilities under the *pro forma* LGIP and *pro forma* LGIA. In response to commenters and consistent with the modified definition of "Generating Facility," we clarify that the transmission providers' per MW acreage requirements for each generating facility technology-type must include specific requirements for hybrid generating facilities. We also clarify that generating facilities that are co-located on the same site and behind the same point of interconnection are subject to the technology-specific acreage requirements based on the generating facilities' technology-type.

604. In response to requests for clarification as to whether the site control demonstration at the time of submission of the interconnection request applies to interconnection facilities as well as generating facilities, we clarify that the site control demonstration requirements apply only to the land needed for the generating facility. In the NOPR, the Commission

did not propose site control requirements for interconnection facilities.¹²⁰⁵ Based on this clarification, we decline to address comments suggesting alternative site control requirements for interconnection facilities or network upgrades.

(c) Site Control Considerations for Interconnection Customers With Regulatory Limitations

605. We adopt the NOPR proposal, with modification, to revise section 3.4.2 of the *pro forma* LGIP to include a limited option for interconnection customers to submit a deposit in lieu of site control when they submit their interconnection request—only if qualifying regulatory limitations prohibit the interconnection customer from obtaining site control. We adopt the NOPR proposal to provide that interconnection customers with regulatory limitations may submit an initial deposit in lieu of site control of \$10,000 per MW, subject to a floor of \$500,000 and a ceiling of \$2 million. As discussed below, this deposit shall be refundable but may not be applied toward interconnection studies or withdrawal penalties, if applicable. However, we decline to adopt the proposed requirement in the NOPR that an interconnection customer facing regulatory limitations must demonstrate 100% site control prior to the execution of a facilities study agreement. Instead, we modify the proposed requirement for an interconnection customer facing regulatory limitations to provide that a deposit in lieu of site control will be accepted and held by the transmission provider until the interconnection customer can demonstrate 90% site control prior to execution of the facilities study agreement or 100% site control at execution of the facilities study agreement or thereafter. Additionally, we modify the NOPR proposal to specify in Appendix B of the *pro forma* LGIA that interconnection customers facing qualifying regulatory limitations must demonstrate 100% site control within 180 calendar days of the effective date of the LGIA or the LGIA may be terminated per article 17

¹²⁰³ See *Midcontinent Indep. Sys. Operator, Inc.*, 169 FERC ¶ 61,173 at P 48 (finding MISO's proposal to place resource-specific acreage requirements in its business practice manuals to be appropriate because "these requirements include technical calculations that may require updates from time to time"); *Sw. Power Pool, Inc.*, 128 FERC ¶ 61,114 at P 48; *PJM Interconnection, L.L.C.*, 181 FERC ¶ 61,162 at P 102.

¹²⁰⁴ A hybrid generating facility is a generating facility composed of more than one device of different technology types for the production and/or storage for later injection of electricity that are located on the same site and are operated and dispatched as a single integrated generating facility.

¹²⁰⁵ Under the *pro forma* LGIP, interconnection facilities shall mean the transmission provider's interconnection facilities and the interconnection customer's interconnection facilities. Collectively, interconnection facilities include all facilities and equipment between the generating facility and the point of interconnection, including any modification, additions or upgrades that are necessary to physically and electrically interconnect the generating facility to the transmission provider's transmission system. Interconnection facilities are sole use facilities and shall not include distribution upgrades, stand alone network upgrades or network upgrades.

¹²⁰¹ See Indicated PJM TOs Initial Comments at 26; MISO Initial Comments at 53.

¹²⁰² See, e.g., *N.Y. Indep. Sys. Operator, Inc.*, 179 FERC ¶ 61,102 at PP 105–114.

(Default) of the *pro forma* LGIA and the interconnection customer may be subject to withdrawal penalties per new *pro forma* LGIP section 3.7.1.1 (Calculation of the Withdrawal Penalty).

606. We adopt the NOPR proposal to revise section 3.4.2 of the *pro forma* LGIP to provide how interconnection customers may demonstrate regulatory limitations. Specifically interconnection customers must provide to the transmission provider: (1) a signed affidavit from an officer of the company indicating that site control is unobtainable due to regulatory limitations as such term is defined by the transmission provider; and (2) documentation sufficiently describing and explaining the source and effects of such regulatory limitations, including a description of any conditions that must be met to satisfy the regulatory limitations and the anticipated time by which the interconnection customer expects to satisfy the regulatory restrictions.

607. With respect to what qualifies as a regulatory limitation, we require transmission providers to define regulatory limitations relevant to their service territory, to publicly post the definition, and to provide a narrative description of how they define regulatory limitations as part of their compliance filings. While we decline to require a uniform definition of regulatory limitations for all transmission providers, we clarify that a regulatory limitation is generally a Federal, state, Tribal, or local law that makes it practically infeasible to obtain site control within the time frame detailed in the *pro forma* LGIP. We allow transmission providers flexibility on how to publicly post the definition, such as by including it in business practice manuals or posting on a publicly accessible website. We consider the definition of regulatory limitations to be an implementation detail appropriately housed outside of transmission providers' tariffs, consistent with the rule of reason. We expect that the appropriate scope of regulatory limitations may vary by region and is likely to need to be updated over time as relevant Federal, state, Tribal, or local laws change. For these reasons, we do not require transmission providers to include their definitions of regulatory limitations in their tariffs.

608. We believe that these requirements will ensure a transparent, consistent, and orderly process to facilitate demonstration of regulatory limitations by interconnection customers and will establish minimum requirements to provide transmission

providers sufficient information to evaluate such demonstrations. We agree with commenters that transmission providers are best positioned to develop appropriate definitions of regulatory limitations to address the specific circumstances and unique regulatory limitations that interconnection customers in their regions may face. We believe that this approach preserves flexibility for transmission providers to account for regional diversity.

609. As noted above, we decline to adopt the proposed requirement in the NOPR that an interconnection customer facing regulatory limitations must demonstrate 100% site control prior to commencement of the facilities study. We agree with commenters that the requirement to demonstrate site control at the facilities study stage could act as a barrier for generating facilities faced with regulatory limitations in demonstrating site control because the permitting process may still be underway at the facilities study stage.¹²⁰⁶ To account for these barriers, we clarify that, in such circumstances, interconnection customers are permitted to proceed through the interconnection process and execute, or request the unexecuted filing of, an LGIA before obtaining site control, by providing documentation that demonstrates they are taking identifiable steps to secure the necessary regulatory approvals from the applicable Federal, state, and/or Tribal entities, as described above. Such interconnection customers must provide this documentation at the time of execution of the facilities study agreement and when executing, or requesting the unexecuted filing of, the LGIA, or alternatively, demonstrate site control in accordance with the requirements of the *pro forma* LGIP.

610. We acknowledge that certain interconnection customers developing generating facilities on sites owned or controlled by a government entity, such as those who site generating facilities on BLM lands, may not be able to demonstrate site control under the *pro forma* LGIP definition even by the later stages of the interconnection process because final permitting approval from BLM may not occur until after the facilities study stage.¹²⁰⁷ We believe the site control requirements included in the *pro forma* LGIP strike an appropriate balance between disincentivizing speculative interconnection requests and accommodating interconnection customers facing extensive permitting requirements by allowing such customers to submit a deposit in lieu of

site control where they demonstrate a qualifying regulatory limitation.

611. In response to commenters' concerns that, without clarification, the regulatory limitations exception to the site control requirement may be interpreted broadly to allow interconnection customers to claim regulatory limitations when obtaining site control is simply impractical or expensive, we reiterate that transmission providers may exercise discretion when defining regulatory limitations—generally a Federal, state, Tribal, or local law that makes it practically infeasible to obtain site control within the time frame detailed in the *pro forma* LGIP—as appropriate for interconnection customers in their regions. We believe that allowing flexibility in defining regulatory limitations will enable transmission providers to account for any local, county, Tribal and state regulations in their respective region that may delay an interconnection customer's efforts to obtain site control.

612. With respect to the amount of the deposit in lieu of site control for interconnection customers with regulatory limitations, we find that the amounts that we adopt in this final rule will help prevent speculative interconnection requests without placing an undue burden on interconnection customers. We are not persuaded by commenters that argue that the deposit amounts in lieu of site control for interconnection customers with regulatory limitations need to be even higher to deter interconnection requests that are not likely to achieve site control, particularly when considered in conjunction with the commercial readiness deposits and withdrawal penalties adopted in this final rule, discussed below. We also find that deposits in lieu of site control for interconnection customers with regulatory limitations should be refundable, but may not be applied toward interconnection studies or withdrawal penalties. We find that making these deposits in lieu of site control for interconnection customers with regulatory limitations non-refundable, as some commenters argue, may unduly burden certain interconnection customers facing regulatory limitations where certain regulatory constraints may be beyond their control.

c. Commercial Readiness

i. NOPR Proposal

613. In the NOPR, the Commission proposed to revise the *pro forma* LGIP to include a commercial readiness

¹²⁰⁶ See, e.g., NV Energy Initial Comments at 17.

¹²⁰⁷ See, e.g., *id.*

framework, which included commercial readiness demonstration options and commercial readiness deposits.¹²⁰⁸ The Commission explained that such a framework would encourage interconnection customers that are not ready to proceed to withdraw from the interconnection queue earlier in the study process while also providing them the flexibility to enter and remain in the interconnection queue without an off-take agreement; reduce the number of times an interconnection customer executes and suspends an LGIA for a speculative interconnection request, only to later withdraw the request, leading to the shifting of network upgrade costs to lower-queued interconnection customers; and reduce the strain on transmission providers and enable viable interconnection requests to progress more quickly through a less congested interconnection queue, thereby remedying the unjust and unreasonable Commission-jurisdictional rates discussed in section II of this final rule.

614. Therefore, the Commission proposed to establish the defined terms “commercial readiness demonstration”¹²⁰⁹ and “commercial readiness deposit”¹²¹⁰ in the *pro forma* LGIP.¹²¹¹ The Commission also proposed to add to sections 3.4.2, 7.5, and 8.1 of the *pro forma* LGIP the following options as acceptable forms of commercial readiness demonstration to enter into the cluster study and cluster restudy:

- An executed term sheet (or comparable evidence) related to a contract, binding upon the parties to the contract, for sale of (1) the constructed generating facility, (2) the generating facility’s energy or capacity, or (3) the generating facility’s ancillary services; where the term of sale is not less than five years;
- Reasonable evidence that the generating facility has been selected in a resource plan or resource solicitation process by or for a load-serving entity (LSE), is being developed by an LSE, or is being developed for purposes of a sale to a commercial, industrial, or other large end-use customer; or

- A provisional LGIA which has been filed at the Commission (executed or unexecuted), which is not suspended and includes a commitment to construct the generating facility.

615. The Commission also proposed to add to section 8.1 of the *pro forma* LGIP the following options to serve as forms of commercial readiness demonstration to enter the facilities study, to be provided with the executed facilities study agreement:

- An executed contract (as opposed to a term sheet), binding upon the parties to the contract, for sale of (1) the constructed generating facility, (2) the generating facility’s energy or capacity, or (3) the generating facility’s ancillary services; where the term of sale is not less than five years;
- Reasonable evidence that the generating facility has been selected in a resource plan or resource solicitation process by or for an LSE, is being developed by an LSE, or is being developed for purposes of a sale to a commercial, industrial, or other large end-use customer; or
- A provisional LGIA accepted for filing by the Commission, which is not suspended, with reasonable evidence that the generating facility and interconnection facilities have commenced design and engineering.¹²¹²

616. The Commission also proposed to require the interconnection customer to inform the transmission provider of any material change to its commercial readiness demonstration. The Commission proposed to require the transmission provider to give the interconnection customer 10 business days to demonstrate satisfaction with the applicable requirement after notification of a change to the interconnection request’s commercial readiness demonstration.¹²¹³ The Commission explained that the interconnection customer would have the option to submit a commercial readiness deposit within the 10-day cure period if the change to the commercial readiness demonstration meant that the interconnection request no longer satisfied the criteria.

617. The Commission preliminarily concluded that this approach was appropriate for all transmission providers and therefore proposed to allow interconnection customers the option to submit a commercial readiness deposit, in lieu of demonstrating commercial readiness through the commercial readiness demonstration options required to enter a cluster study,

cluster restudy, and facilities study.¹²¹⁴ The Commission noted that, outside of RTOs/ISOs, transmission providers may be able to provide certain contractual arrangements to their own generating facilities or other preferred interconnection customers, such as the term sheet option noted above, which could lead to unduly discriminatory behavior. The Commission stated that this deposit in lieu of demonstrating commercial readiness may potentially prevent any undue discrimination in the generator interconnection process, consistent with the adoption of a standard set of procedures in the first instance.¹²¹⁵

618. The Commission proposed to revise the *pro forma* LGIP to include a framework to allow interconnection customers to provide a commercial readiness deposit in lieu of meeting commercial readiness requirements in the following amounts:

- Two times the study deposit amount to enter the initial cluster study phase;
- Five times the study deposit amount after the initial cluster study phase and before the system impact restudy phase; and
- Seven times the study deposit amount after receipt of the facilities study agreement.¹²¹⁶

619. The Commission clarified that the proposed commercial readiness deposit is separate from the study deposit.¹²¹⁷ The Commission stated that the commercial readiness deposit would be returned if the interconnection customer later makes a commercial readiness demonstration. If the interconnection customer withdraws from the interconnection queue, the Commission proposed that the commercial readiness deposit would be applied toward any incurred withdrawal penalties.

620. Additionally, the Commission proposed revisions to the list of development milestones in section 11.3 of the *pro forma* LGIP to clarify the following:

- A contract for the supply or transportation of fuel and a contract for the supply of cooling water will not be accepted for wind, storage, or solar photovoltaic resources;
- Comparable evidence of a contract for the sale of energy or capacity will be accepted; and
- Any of the commercial readiness demonstration options accepted to enter

¹²⁰⁸ NOPR, 179 FERC ¶ 61,194 at P 128.

¹²⁰⁹ The Commission proposed to revise section 1 of the *pro forma* LGIP to provide that commercial readiness demonstration shall have the meaning set forth in sections 3.4.2, 7.5, and 8.1 of the *pro forma* LGIP. *Id.* P 129 n.204.

¹²¹⁰ The Commission proposed to revise section 1 of the *pro forma* LGIP to provide that commercial readiness deposit shall mean a deposit paid in lieu of submitting a commercial readiness demonstration, as set forth in sections 3.4.2, 7.5, and 8.1 of the *pro forma* LGIP. *Id.* P 129 n.205.

¹²¹¹ *Id.* P 129.

¹²¹² *Id.* P 130.

¹²¹³ *Id.* P 131.

¹²¹⁴ *Id.* P 132.

¹²¹⁵ *Id.* (citing Order No. 2003, 104 FERC ¶ 61,103 at PP 1–2).

¹²¹⁶ *Id.* P 133.

¹²¹⁷ *Id.* P 134.

the facilities study will be accepted along with the executed LGIA or within 15 days of the Commission issuing an order on the unexecuted LGIA filing, while a commercial readiness deposit will not be accepted.¹²¹⁸

621. The Commission preliminarily found that this framework would allow interconnection customers to calculate the exact deposit that would be required prior to entering the interconnection queue, as it is based on multiples of the study deposit, and the study deposit is based on the size of the proposed generating facility, as chosen by the interconnection customer, leading to predictability in the deposit amount.¹²¹⁹ The Commission explained that this increased transparency in the deposit amount early in the interconnection process would discourage speculative interconnection requests from entering the interconnection queue.

622. The Commission sought comment on whether the Commission should also establish, as other alternative demonstrations of commercial readiness, evidence of a commitment to participate in RTO/ISO markets, a site-specific purchase order for generating equipment specific to the interconnection request, or a statement signed by an officer or authorized agent of the interconnection customer attesting that the generating facility is to be supplied with major electric generating components (such as wind turbines) with a manufacturer's blanket purchase agreement to which the interconnection customer is a party.¹²²⁰

ii. Comments

(a) Comments in Support

623. Several commenters support the commercial readiness framework because they believe that it will reduce the submission of exploratory or speculative interconnection requests.¹²²¹ These commenters argue that requiring financial commitments and commercial readiness requirements early in the interconnection process, as

the Commission proposed, is important to more efficiently allocate transmission provider resources to generating facilities that are more likely to achieve commercial operation and to enhance the certainty of interconnection study results, benefiting all interconnection customers. Pacific Northwest Utilities similarly assert that requiring commercial readiness at an appropriate point in the cluster study process minimizes the cost and inefficiency risk of restudies and increases the probability that planned network upgrades will be funded and constructed.¹²²² Navajo Utility also supports the Commission's use of the commercial readiness requirements to discourage speculative interconnection requests from slowing the interconnection process.¹²²³

624. Navajo Utility explains that, as an LSE that constructs generating facilities for the benefit of the Navajo Nation and to export clean energy to surrounding LSEs, it specifically supports the second criterion related to generating facilities developed by an LSE.¹²²⁴ NRECA contends that the proposed commercial readiness demonstration requirements protect generating facilities that have been committed to serve load from being hindered by interconnection requests for generating facilities that are still looking for off-takers, thereby helping reduce the pressure on transmission provider interconnection queues.¹²²⁵

625. APPA-LPPC note that there may be power purchase agreements, asset sales agreements and competitive procurement programs that currently contemplate full knowledge of interconnection costs before deals may be finalized.¹²²⁶ However, APPA-LPPC argue that there is nothing inevitable about the structure and sequencing of these arrangements. APPA-LPPC state that, assuming the Commission moves ahead with a commercial readiness requirement, it is not hard to envision revisions to standard form power purchase agreements, asset sales agreements, and bids into power procurement programs that are contingent on specified assumptions regarding interconnection costs. APPA-LPPC contend that with improvements in the availability of interconnection costs, along with much-needed stability in the interconnection queues, it is reasonable to expect that

interconnection costs will be substantially more predictable than is now the case.

626. SoCal Edison supports the proposals to require the interconnection customer to notify the transmission provider of any material change to its commercial readiness demonstration and to require the transmission provider to give the interconnection customer 10 business days to cure the commercial readiness deficiency.¹²²⁷

(b) Comments in Opposition

627. Several commenters argue that the NOPR proposal is inconsistent with prevailing commercial practices (especially those in RTOs/ISOs), sets unreasonable standards for off-take agreements, and ignores the commercial reality of the competitive solicitation process, which could create an undue preference for self-build options in areas that rely on competitive solicitations and undue discrimination against merchant developers, thereby subverting competition in wholesale power markets.¹²²⁸ Some commenters contend that the proposed commercial readiness demonstration options are heavily weighted in favor of incumbent utility practices, such as evidence of a power purchase agreement or executed term sheet or evidence that a project has been selected in a resource plan or resource solicitation process by an LSE.¹²²⁹

628. Enel argues that ratepayers and off-takers benefit from generating facilities being selected in competitive processes that consider both a generating facility's inherent characteristics and its interconnection costs and schedule, which cannot be done if off-take arrangements are made prior to applying for interconnection service.¹²³⁰ NextEra asserts that being part of the interconnection queue is an essential step in the competitive

¹²²⁷ SoCal Edison Initial Comments at 9.

¹²²⁸ ACORE Reply Comments at 4; AEE Initial Comments at 20; AEE Reply Comments at 12; Alliant Energy Initial Comments at 5–6; Clean Energy Associations Initial Comments at 34–35; Clean Energy Associations Reply Comments at 4–6; CREA and NewSun Initial Comments at 57; CREA and NewSun Reply Comments at 22–45; Cypress Creek Initial Comments at 22–23; Enel Initial Comments at 44; ENGIE Initial Comments at 5; ENGIE Reply Comments at 2–3; EPSA Initial Comments at 9; Fervo Energy Reply Comments at 6–7; New Jersey Commission Reply Comments at 6–8; NextEra Initial Comments at 24; Pine Gate Initial Comments at 27; NextEra Reply Comments at 14–16; Public Interest Organizations Initial Comments at 29–30; R Street Initial Comments at 13; SEIA Initial Comments at 25; Vistra Initial Comments at 6.

¹²²⁹ EPSA Initial Comments at 9; R Street Initial Comments at 13.

¹²³⁰ Enel Initial Comments at 44.

¹²¹⁸ *Id.* P 135.

¹²¹⁹ *Id.* P 136.

¹²²⁰ *Id.* P 137.

¹²²¹ APPA-LPPC Reply Comments at 5; Avangrid Initial Comments at 9; Consumer Energy Initial Comments at 5; EEI Initial Comments at 6–7; EEI Reply Comments at 5; NERC Initial Comments at 26; Google Initial Comments at 20; Idaho Power Initial Comments at 7; MISO TOs Initial Comments at 28–29; NARUC Initial Comments at 10; NESCOE Initial Comments at 13; North Carolina Commission and Staff Initial Comments at 26; Ohio Commission Consumer Advocate Initial Comments at 12; Omaha Public Power Initial Comments at 9; Pacific Northwest Utilities Initial Comments at 3, 6; Pennsylvania Commission Initial Comments at 14; U.S. Chamber of Commerce Initial Comments at 9; UMPA Initial Comments at 5; Xcel Reply Comments at 6–10.

¹²²² Pacific Northwest Utilities Initial Comments at 6.

¹²²³ Navajo Utility Initial Comments at 10.

¹²²⁴ *Id.* at 10–11.

¹²²⁵ NRECA Initial Comments at 29.

¹²²⁶ APPA-LPPC Reply Comments at 5.

process,¹²³¹ and Public Interest Organizations note that utilities conducting RFPs for their resource plans often require at least a position in an interconnection queue as a precondition of offering.¹²³² Cypress Creek argues that commercial readiness demonstrations should not apply until an interconnection customer receives the results from the proposed initial cluster study, which may be required to bid into a resource solicitation.¹²³³ Cypress Creek contends that it is impractical to include the proposed demonstration requirements at early stages in the interconnection study process and that this construct is not workable in markets where merchant sales are common.

629. Enel, NextEra, and Public Interest Organizations argue that precluding entry into the interconnection queue due to lack of a demonstration of commercial readiness would be an anticompetitive measure favoring entities, such as incumbent transmission providers, that could favor their own proposed generating facilities ahead of others because of their enhanced ability to demonstrate their proposed generating facilities as commercially ready.¹²³⁴ For instance, CREA and NewSun assert that, unlike independent power producers, an incumbent, vertically integrated utility can easily meet the second prong of the readiness criteria to enter the interconnection queue and proceed to the facilities study by simply identifying its preferred resource in its own resource plan, selecting it as the winning bid in its own utility-run RFP, or just attesting that the utility is “developing” the generating facility.¹²³⁵

630. CREA and NewSun claim that the commercial readiness proposal would drive most, if not all, independent power producers from the market, which would raise costs to consumers by eliminating competition and innovation.¹²³⁶ SEIA asserts that by proposing a commercial readiness demonstration framework that is nearly impossible for independent power producers to meet, the Commission is incorrectly implying that generating facilities developed by independent power producers are inherently not

commercially viable.¹²³⁷ SEIA emphasizes that independent power producers play a critical role in bringing robust competition to markets by driving innovation and decreasing the cost of providing power.¹²³⁸

631. Alliant Energy claims that requiring demonstration of commercial readiness prior to an interconnection customer entering the interconnection queue may do more harm than good.¹²³⁹ Alliant Energy argues that the commercial viability of a proposed generating facility depends heavily on the costs of network upgrades and interconnection facilities required to accommodate a generating facility’s interconnection, which cannot be known prior to a generating facility receiving cost estimates that are dependable and enable interconnection customers to make decisions during the interconnection process.

632. Vistra argues that the proposed increase in study deposits, withdrawal penalties, and exclusive site control requirements will significantly reduce the number of speculative interconnection requests entering the interconnection queue, making the commercial readiness proposal redundant.¹²⁴⁰ Vistra notes that the Commission has relied on fact-specific showings to accept requirements to demonstrate commercial readiness thus far, and Vistra argues that the fact that the Commission has accepted a transmission provider’s revised LGIP under FPA section 205 does not establish that the *pro forma* LGIP is unjust and unreasonable without the commercial readiness proposal.¹²⁴¹

633. Vistra states that, beyond simple timing concerns, procurement decisions and eligibility to enter the interconnection queue are interrelated in a way that creates a chicken-and-egg problem.¹²⁴² Vistra explains that it is difficult for a generating facility to be shortlisted for procurement without line of sight to obtaining a signed interconnection agreement because the signed interconnection agreement brings more certainty to the generating facility’s commercial operation date. Vistra expresses concern that the Commission’s proposal to require an executed term sheet to enter the interconnection queue and an executed contract to enter the facilities study process will simply shift the burden of this chicken-and-egg problem to the

procurement process. Vistra asserts that the status quo appropriately balances the inherent difficulty of coordinating procurement and interconnection.

634. Invenergy argues that the proposed requirements are inappropriate and should not be applied nationally because they are based on a small subset of transmission providers that have adopted “readiness” requirements with little evidence that they are effective, given the continuing interconnection queue reform efforts in some of those same regions.¹²⁴³ Invenergy adds that, if additional assurance of an interconnection customer’s intent to pursue its interconnection request is needed, the Commission should consider a requirement to post a certain amount of security that becomes increasingly at risk to move through the interconnection queue, as is done in some RTO/ISO regions.

635. NextEra asserts that generating facilities may be fully viable based on criteria that are different from what the NOPR proposes. For example, NextEra states that it is possible that storage or other types of generating facilities entering the market will not require power purchase agreements or designation as network resources to be commercially viable.¹²⁴⁴

636. R Street argues that a key to efficient generating facility development is to enable parallel work flows.¹²⁴⁵ R Street claims that, by imposing extensive prerequisites to advance in the interconnection process, commercial readiness requirements would introduce greater process dependencies in generating facility development. R Street adds that granting non-RTO/ISO transmission providers discretion over commercial readiness requirements could lead to discriminatory behavior (e.g., non-RTO/ISO transmission providers withholding off-take contracts to discriminate against other potential suppliers).

637. MISO states that it is concerned about the utility and impacts of the proposed commercial readiness framework.¹²⁴⁶ MISO explains that interconnection customers with commitments from off-takers can be commercially unready and often cause the greatest interconnection queue disruption by lingering the longest in the queue. As an example, MISO posits a proposed generating facility that would be commercially viable provided it does not incur network upgrade costs

¹²³¹ NextEra Initial Comments at 24.

¹²³² Public Interest Organizations Initial Comments at 29.

¹²³³ Cypress Creek Initial Comments at 22–23.

¹²³⁴ Enel Initial Comments at 44; NextEra Initial Comments at 24; Public Interest Organizations Initial Comments at 29.

¹²³⁵ CREA and NewSun Initial Comments at 66 (citing NOPR, 179 FERC ¶ 61,194 at PP 129, 130).

¹²³⁶ *Id.* at 57.

¹²³⁷ SEIA Initial Comments at 16, 25.

¹²³⁸ *Id.* at 25.

¹²³⁹ Alliant Energy Initial Comments at 5–6.

¹²⁴⁰ Vistra Initial Comments at 6.

¹²⁴¹ *Id.* at 6, 8.

¹²⁴² *Id.* at 9.

¹²⁴³ Invenergy Initial Comments at 11–12.

¹²⁴⁴ NextEra Initial Comments at 24.

¹²⁴⁵ R Street Initial Comments at 13.

¹²⁴⁶ MISO Initial Comments at 62–63.

in excess of \$5 million dollars. MISO argues that such a generating facility is likely to remain in the interconnection queue despite not having a viable business case, in the hopes that other interconnection customers will withdraw their requests and costs will decrease. MISO asserts that, to indicate commercial readiness, a term sheet or contract would need to show not only that there was an off-taker but also that the projected income for the proposed generating facility is sufficient to render the generating facility commercially viable, given estimated study and network upgrade costs, which would be exceedingly difficult to require from interconnection customers and nearly impossible for a transmission provider to evaluate and verify.

638. Anbaric claims that the proposed core readiness requirements do not align with the development trajectory of planned transmission projects for offshore wind generation.¹²⁴⁷

639. NextEra asserts that commercial readiness requirements at the interconnection request stage are inappropriate.¹²⁴⁸ NextEra explains that interconnection customers do not have a simple test for distinguishing speculative interconnection requests from other interconnection requests. Rather, NextEra continues, successful generating facility development depends on whether the interconnection customer concludes that the interconnection arrangement is acceptable and whether the generating facility's location and costs are agreeable to its customers.

640. NextEra also argues that meeting any readiness milestones after the submission of an interconnection request (*e.g.*, when entering the facilities study phase) should be premised on the interconnection customer having received timely and accurate study results, including from affected systems.¹²⁴⁹ NextEra asserts that it is not just and reasonable to impose increasingly strict requirements on interconnection customers without devising means of accelerating interconnection queue processing by transmission providers and ensuring transmission providers comply with their tariffs.

641. Longroad recommends that the Commission clearly tie the interconnection customer's commitment to pay for network upgrades to a security deposit applied toward the costs thereof during the cluster study phases, and that the security deposits

for network upgrades progressively increase at each stage of the cluster study process.¹²⁵⁰ Longroad asserts that in the initial cluster study, the security deposit should be a modest percentage of the allocated network upgrade cost and increase to, for example, 25% of the network upgrade cost allocation to enter the facilities study. Longroad contends that the interconnection customer should have the option to either fully fund the network upgrade as a milestone in the LGIA or to fund in advance the transmission provider's estimated quarterly spending towards engineering, procurement, and construction of the network upgrades.

(c) Comments on Specific Proposals

(1) Proposed Readiness Demonstrations

642. Commenters raise significant issues with the readiness demonstration options proposed in the NOPR. With respect to the first proposed readiness demonstration option,¹²⁵¹ commenters argue that providing power purchase agreements or term sheets will be unworkable for most interconnection customers, particularly merchant developers, because: (1) developers do not have sufficient information about interconnection costs to move forward with a term sheet or power purchase agreement at the time they enter into the interconnection study process; and (2) the proposals to make more information available to interconnection customers prior to submitting an interconnection request will not provide sufficiently granular or certain information to overcome this barrier.¹²⁵²

643. Commenters further note that the vast majority of power purchasers seek generating facilities with advanced interconnection queue positions (with

preference for a finalized LGIA or SGIA) before signing a power purchase agreement or finalizing a state procurement.¹²⁵³ CREA and NewSun, as well as SEIA, argue that a contract for provision of ancillary services, is almost entirely foreclosed to many non-synchronous generating facilities because nearly every transmission provider bars non-synchronous generating facilities from providing ancillary services, either explicitly or through operating requirements.¹²⁵⁴

644. Commenters also assert that, if independent power producers are forced to enter into contracts before costs are certain, then they would need to incorporate that uncertainty into the power purchase agreement offer, which would drive up the costs of these contracts, resulting in higher consumer costs.¹²⁵⁵ Commenters contend that, if the independent power producer does not reflect the costs of the network upgrades in its power purchase agreement price, either the independent power producer or the consumer may attempt to break the contract, which would lead to increased contractual litigation.¹²⁵⁶ Vistra adds that the purchaser will then need to start the procurement process over or choose to over-procure as insurance against potential contract termination, to the detriment of reliability and cost.¹²⁵⁷

645. SoCal Edison argues that, in some regions, an executed contract option for entering the facilities study could unintentionally encourage LSEs to sign contracts with developers for more energy or capacity than they need to secure resources to meet their procurement targets.¹²⁵⁸ SoCal Edison contends that competition in certain areas for particular generation resources may be high, which may force other LSEs to prematurely enter into contracts with developers to secure generation without the benefit of the facilities study, which is currently relied on by LSEs to assess commercial viability of a generating facility before contracts are signed. AEE asserts that customers may ultimately bear the cost of the selection of generating facilities that may not be the least cost options in the market but

¹²⁵⁰ Longroad Reply Comments at 13.

¹²⁵¹ Executed term sheet (or comparable evidence) related to a contract for sale of (1) the constructed generating facility to a load-serving entity or to a commercial, industrial, or other large end-use customer, (2) the generating facility's energy or capacity where the term of sale is not less than five (5) years, or (3) the generating facility's ancillary services where the term of sale is not less than five (5) years.

¹²⁵² AEE Initial Comments at 21; AES Clean Energy Initial Comments at 16; CAISO Initial Comments at 18; CESA Initial Comments at 10; CESA Reply Comments at 6; Clean Energy Associations Initial Comments at 37; ClearPath Initial Comments at 8; CREA and NewSun Initial Comments at 57–58; New Jersey Commission Reply Comments at 6–7; Enel Initial Comments at 42–43; Invenery Initial Comments at 13–15; Invenery Reply Comments at 1–5; Fervo Energy Initial Comments at 5; Longroad Energy Reply Comments at 17; SEIA Initial Comments at 17; SEIA Reply Comments at 7–9; Shell Reply Comments at 20–21; Longroad Energy Initial Comments at 15–16; Omaha Public Power Initial Comments at 8–9; R Street Initial Comments at 13; Shell Initial Comments 13–15; Vistra Initial Comments at 8, 10.

¹²⁵³ Invenery Initial Comments at 13; Northwest and Intermountain Initial Comments at 9; Public Interest Organizations Initial Comments at 28.

¹²⁵⁴ CREA and NewSun Initial Comments at 62; SEIA Initial Comments at 17.

¹²⁵⁵ CREA and NewSun Initial Comments at 57; Clean Energy Associations Initial Comments at 37; SEIA Initial Comments at 17; SoCal Edison Initial Comments at 8; Vistra Initial Comments at 9–10.

¹²⁵⁶ AEE Initial Comments at 21; Longroad Energy Initial Comments at 15; SEIA Initial Comments at 17; Vistra Initial Comments at 10.

¹²⁵⁷ Vistra Initial Comments at 10.

¹²⁵⁸ SoCal Edison Initial Comments at 7–8.

¹²⁴⁷ Anbaric Initial Comments at 15–16.

¹²⁴⁸ NextEra Initial Comments at 23–24.

¹²⁴⁹ *Id.* at 25.

are able to execute a term sheet or power purchase agreement regardless of the ultimate level of interconnection costs.¹²⁵⁹

646. Commenters also assert that it is unreasonable to expect that a buyer and seller will be able to finalize negotiation of a contract between the time of the cluster restudy (or amendment of the restudy if additional interconnection customers withdraw upon receipt of the restudy results) and the time the facilities study agreement must be executed.¹²⁶⁰

647. CAISO requests that the Commission describe in detail what would constitute a term sheet.¹²⁶¹ CAISO states that in its experience with similar tariff provisions, interconnection customers frequently try to submit questionable or even misleading documentation to meet the tariff requirements.

648. Invenergy argues that, to the extent an off-take agreement or term sheet remains an option to demonstrate readiness, the Commission should clarify that transmission providers are not entitled or even permitted to review the commercial terms of the term sheet or agreement, which may be confidential and is not subject to the transmission provider's discretion.¹²⁶²

649. GSCE does not dispute that readiness requirements are important but argues that basing them on contracting status is misguided for the following reasons: (1) it does not focus on early-stage developmental steps that drive generating facility viability and indicate true commercial readiness; (2) it provides incentives for interconnection customers that have not taken concrete steps toward readiness to bid low in competitive solicitations, creating fictional "contracted" capacity that may never prove viable; (3) the contracting landscape is evolving, and long-term contracting is no longer required for successful project financing or the emerging realities of capital markets, and with the inflationary environment, long-term contracts may currently be harder to finance than short-term contracts; and (4) a focus on contracting to enter the interconnection study process forces commercial negotiations to occur before generating facilities are studied and have sufficient cost certainty or development timeline assurances.¹²⁶³

650. Commenters also point to significant issues with the second proposed readiness demonstration option.¹²⁶⁴ They argue that requiring evidence that a proposed generating facility is "selected in a resource plan or resource solicitation plan by or for [an LSE], is being developed by [an LSE], or is being developed for purposes of a sale to a commercial, industrial, or other a large end-use customer" is discriminatory and preferential without cause or reasonable support.¹²⁶⁵

651. Several commenters argue that the option for interconnection customers to demonstrate commercial readiness by showing that the generating facility is being developed for purposes of a sale to an end-use customer suffers a timing challenge because it is nearly impossible for the independent power producer to price a sales contract to a retail customer, or the customer having much interest in discussing the transaction, without having reasonable certainty as to the generating facility's likely interconnection costs.¹²⁶⁶

652. SoCal Edison recommends that the Commission clarify or give additional examples of reasonable evidence that a proposed generating facility has been selected in an LSE's resource solicitation process or allow a transmission provider to determine how this option can be met.¹²⁶⁷ SoCal Edison states that evidence that a proposed generating facility has been short-listed in an LSE request for offer should be considered reasonable evidence for moving into the facilities study.

653. Several commenters argue that the third readiness demonstration option, a provisional LGIA,¹²⁶⁸ is likely unworkable as well because it would require independent power producers to assume almost all the risk of the network upgrade costs without knowing

those costs.¹²⁶⁹ On the other hand, CAISO asserts that interconnection customers could escape financial consequences and bypass the NOPR's requirements through the provisional LGIA option.¹²⁷⁰ CAISO argues that, at a minimum, the Commission should allow transmission providers to provide the provisional LGIA option where they believe it will work, but not require all transmission providers to enable interconnection customers to bypass commercial readiness through provisional LGIAs.

654. SoCal Edison and CAISO recommend that the Commission provide additional guidance on, or more clearly define, the term "provisional LGIA."¹²⁷¹ CAISO also states that it is unclear how interconnection customers that have yet to be studied could submit provisional LGIAs because LGIAs describe the network upgrades and facilities from interconnection studies.¹²⁷² CAISO states that interconnection customers are likely to request provisional LGIAs because demonstrating commercial readiness in RTOs/ISOs is generally impossible until after studies are complete.

655. Commenters claim that the record does not support adopting the proposed commercial readiness framework within RTOs/ISOs, arguing that it would be unreasonable and unduly discriminatory.¹²⁷³ These commenters argue that the record in RTOs/ISOs does not support the NOPR's assertion that generating facilities are generally not constructed without some form of off-take agreement. They assert that the commercial readiness criteria should not be required *at all* in RTO/ISO regions (with locational marginal price-based markets), where generating facilities can move forward in many cases without a specific off-taker. Some commenters also argue that an RTO/ISO should not have to evaluate contracts for the sale of a generating facility's output or determine whether the generating facility has been selected in a resource plan or resource solicitation process in

¹²⁶⁴ Reasonable evidence that the generating facility has been selected in a resource plan or resource solicitation process by or for an LSE, is being developed by an LSE, or is being developed for purposes of a sale to a commercial, industrial, or other large end-use customer.

¹²⁶⁵ AEE Initial Comments at 23; Clean Energy Associations Initial Comments at 35; CRE and NewSun Initial Comments at 58–70; EPSA Initial Comments at 9; Interwest Initial Comments at 19–20; SEIA Initial Comments at 18; Shell Initial Comments at 16.

¹²⁶⁶ AEE Initial Comments at 22–23; CRE and NewSun Initial Comments at 59; SEIA Initial Comments at 19–20; Shell Initial Comments at 14; Vistra Initial Comments at 6.

¹²⁶⁷ SoCal Edison Initial Comments at 8.

¹²⁶⁸ A provisional LGIA that has been filed at the Commission executed, or requested to be filed unexecuted, which is not in suspension pursuant to article 5.16 of the LGIA, and includes a commitment to construct the generating facility.

¹²⁶⁹ AEE Initial Comments at 23–24; CRE and NewSun Initial Comments at 59–63; SEIA Initial Comments at 20–23.

¹²⁷⁰ CAISO Initial Comments at 20–21.

¹²⁷¹ SoCal Edison Initial Comments at 8; CAISO Initial Comments at 20.

¹²⁷² CAISO Initial Comments at 20.

¹²⁷³ ACE–NY Initial Comments at 6–7; AEE Initial Comments at 22; AES Clean Energy Initial Comments at 16–17; CESA Initial Comments at 9–10; Clean Energy Associations Initial Comments at 38; PJM Initial Comments at 33–34; Public Interest Organizations Initial Comments at 28–29; SEIA Initial Comments at 23–24.

¹²⁵⁹ AEE Initial Comments at 21.

¹²⁶⁰ CRE and NewSun Initial Comments at 62; Longroad Energy Initial Comments at 16; SEIA Initial Comments at 17.

¹²⁶¹ CAISO Initial Comments at 20.

¹²⁶² Invenergy Initial Comments at 18.

¹²⁶³ GSCE Initial Comments at 8–9.

any of the potentially multiple states within its footprint.¹²⁷⁴

656. Commenters argue that the proposed 10-business day cure period to resolve potential commercial readiness deficiencies is insufficient given the complicated business and technical decisions involved.¹²⁷⁵ Invenergy states the interconnection process often extends for several years and it is entirely possible that commercial arrangements may change during that time.¹²⁷⁶ Invenergy states that these changes may require additional negotiations, but should not call into question the customer's commitment to developing its project and risk being withdrawn from the interconnection queue. Ørsted requests a 30-business day cure period instead.¹²⁷⁷

(2) Alternative Commercial Readiness Demonstrations

657. Some commenters argue that the Commission should consider expanding this list of proposed criteria to include other demonstrations of commercial readiness, such as completion of environmental, local, state, or Federal permitting processes.¹²⁷⁸ CREA and NewSun, as well as Northwest and Intermountain, ask the Commission to provide QFs a more relaxed readiness option than a fully executed power purchase agreement, especially when a transmission provider requires qualifying facilities to have a completed interconnection study result to obtain a draft power purchase agreement under its state Public Utility Regulatory Policies Act (PURPA) implementation programs (*e.g.*, PacifiCorp).¹²⁷⁹ CREA and NewSun suggest that the Commission could allow QFs to submit an affidavit from the interconnection customer, stating that the avoided cost rates offered are sufficient to finance and bring the QF into commercial operation if interconnection can be obtained.¹²⁸⁰ CREA and NewSun contend that this option is consistent with the Commission's obligation to adopt regulations that encourage development of QFs.

658. Comments are mixed on the potential additional demonstrations of commercial readiness on which the Commission requested comment in the NOPR. Several commenters support the three potential other readiness options suggested in the NOPR, or a combination thereof.¹²⁸¹

659. Other commenters oppose the various alternative demonstration options. With regard to the first—evidence of a commitment to participate in RTO/ISO markets—several commenters argue that the proposal would be essentially meaningless because practically all interconnection requests would qualify.¹²⁸²

660. As for the second and third potential alternative demonstration options—a site specific purchase order for generating equipment specific to the interconnection request, or a statement signed by an officer or authorized agent of the interconnection customer attesting that the generating facility is to be supplied with major electric generating components (such as wind turbines) with a manufacturer's blanket purchase agreement to which the interconnection customer is a party—PacifiCorp and Ameren oppose these options.¹²⁸³ PacifiCorp argues that, although it originally adopted a similar provision in its initial interconnection queue reform process, in the course of administering its first two cluster studies, it determined that this readiness option set a low hurdle that speculative interconnection requests could easily overcome.¹²⁸⁴ Similarly, SPP does not support site-specific purchase orders or statements attesting to supply of major components as evidence of commercial readiness.¹²⁸⁵ Enel asserts that it is inappropriate to require procurement of major power equipment prior to an interconnection request or, in many cases, even before executing an LGIA.¹²⁸⁶ Enel contends that requiring procurement of specific generating equipment prior to applying for interconnection is detrimental to reliability because newer technologies procured after the execution of an LGIA

often have advanced features that did not exist a few years earlier. Enel explains that it procures major wind, solar, and battery generation equipment between 12 and 24 months prior to energizing a new generating facility to the transmission system, typically after execution of an LGIA and a full investment review (including knowledge of interconnection costs and schedules) are complete. Enel adds that a generating facility without interconnection results carries too much risk for interconnection customers and investors to risk significant financial deposits to reserve site specific generation equipment. Similarly, Xcel states that interconnection customers want the flexibility to wait until the last minute to order equipment and start construction, which results in different equipment being ordered than initially expected.¹²⁸⁷

661. Some commenters argue that the proposed commercial readiness requirements unduly discriminate against pumped storage projects, which often do not have the commercial pathways and timelines associated with other types of generating facilities.¹²⁸⁸ Those commenters explain that the development of a pumped storage project is an iterative process of assessment and de-risking that takes several years to complete, at a cost of tens of millions of dollars. They suggest that achieving one of the following three criteria would be sufficient evidence of commercial readiness for a pumped storage project: (1) a filing of notice of intent to apply for an original license and pre-application document with the Commission; (2) an executed memorandum of understanding, letter of intent, or an equivalent term sheet with a utility; or (3) selection of the project in an integrated resource plan (IRP) process. They add that, in lieu of having achieved one of these, a commercial readiness deposit of \$2,000 per MW is appropriate. These commenters ask the Commission to add the receipt of a Commission license to the list of milestone developments in section 11.3 of the *pro forma* LGIP.

662. Commenters recommend several alternative bases to determine commercial readiness, including: (1) a 50% generator tie line site control requirement;¹²⁸⁹ (2) a project development plan to determine readiness;¹²⁹⁰ (3) documentation of developer due diligence, including

¹²⁷⁴ MISO Initial Comments at 63; MISO TOs Initial Comments at 29; PJM Initial Comments at 33.

¹²⁷⁵ Invenergy Initial Comments at 21; Ørsted Initial Comments at 13.

¹²⁷⁶ Invenergy Initial Comments at 21.

¹²⁷⁷ Ørsted Initial Comments at 13.

¹²⁷⁸ ClearPath Initial Comments at 9; CREA and NewSun Initial Comments at 71; Enel Initial Comments at 47; Longroad Energy Initial Comments at 17; Northwest and Intermountain Initial Comments at 11; Vistra Initial Comments at 11.

¹²⁷⁹ CREA and NewSun Initial Comments at 72–73; Northwest and Intermountain Initial Comments at 11.

¹²⁸⁰ CREA and NewSun Initial Comments at 73.

¹²⁸¹ *Id.* at 70–71; APS Initial Comments at 15; NERC Initial Comments at 26–27; ENGIE Initial Comments at 5–6; Clean Energy Associations Initial Comments at 39; Invenergy Initial Comments at 16–17; NESCOE Initial Comments at 13; NextEra Initial Comments at 25; Pattern Energy Initial Comments at 31–32; R Street Initial Comments at 13; SEIA Initial Comments at 25; Tri-State Initial Comments at 15.

¹²⁸² Indicated PJM TOs Initial Comments at 31–32; PJM Initial Comments at 34.

¹²⁸³ Ameren Initial Comments at 17; PacifiCorp Initial Comments at 31.

¹²⁸⁴ PacifiCorp Initial Comments at 31.

¹²⁸⁵ SPP Initial Comments at 10.

¹²⁸⁶ Enel Initial Comments at 46.

¹²⁸⁷ Xcel Initial Comments at 33.

¹²⁸⁸ Hydropower Commenters Initial Comments at 9, 25–26; rPlus Initial Comments at 4.

¹²⁸⁹ Enel Initial Comments at 45.

¹²⁹⁰ Xcel Initial Comments at 33.

available transmission capacity and modeling;¹²⁹¹ (4) participating in and meeting the eligibility requirements for a state-mandated procurement program;¹²⁹² and (5) an executed firm point-to-point transmission service agreement from the proposed point of interconnection to a point of consumption for the generating facility's output.¹²⁹³

663. To address the Commission's concerns while maintaining the commercial viability of planned transmission projects for offshore wind, Anbaric asks the Commission to consider requiring such projects to make the following demonstrations to satisfy the commercial readiness requirements: (1) site control of property near the point of interconnection suitable for a converter station of a specified size (expressed in MWs) needed to enable high voltage direct current (HVDC) lines carrying offshore wind energy to be put onto the regional transmission system; (2) site control of a property at a coastline location suitable for the transition from seabed to terrestrial routes sufficient to move the specified amount of MWs identified in interconnection requests; and (3) a state procurement policy or goal to procure a defined amount of offshore wind generation associated with a planned transmission project within a defined time frame.¹²⁹⁴

664. Eversource supports the Commission's proposed commercial readiness framework but asks the Commission to strengthen it by requiring the interconnection customer to demonstrate project financing (along with the current proposed requirements).¹²⁹⁵ Eversource also asks the Commission to require interconnection customers to provide a preliminary project schedule that identifies all key milestones and timelines.

665. Fervo Energy argues that, for cluster study and restudy processes, the proposed framework should allow the interconnection customer to demonstrate readiness by using a combination of options, such as executed term sheets for a portion of the facility plus deposits on a \$/MW basis calculated from the quotient of the study deposit amount and the proposed generating facility size.¹²⁹⁶

666. ENGIE and SEIA ask the Commission to make the commercial

readiness demonstration a requirement for entering into an LGIA.¹²⁹⁷ ENGIE and SEIA assert that a later-stage commercial readiness demonstration will allow independent power producers to make rational business decisions based on reasonably certain network upgrade costs.

(3) Deposit in Lieu of Readiness

667. Some commenters contend that the proposal to allow interconnection customers to provide a deposit in lieu of demonstrating commercial readiness does not cure the potential for undue discrimination that results from retaining commercial readiness options that are easily attained by incumbent, vertically integrated utilities but infeasible for independent power producers.¹²⁹⁸ These commenters claim that, because it is nearly impossible for an independent power producer to make any of the commercial readiness demonstrations currently proposed, the deposit in lieu of meeting the commercial readiness requirements would not be an "option" for independent power producers but rather would be the *only* path forward in the interconnection process.

668. Some commenters support the deposit in lieu of readiness option, as proposed. For instance, SoCal Edison asserts that an increased financial requirement via a deposit in lieu of demonstrating commercial readiness should help to identify those interconnection requests that are economically viable and to which the transmission provider should focus its resources.¹²⁹⁹ Northwest and Intermountain state that providing interconnection customers with an option to demonstrate commercial readiness through a deposit is essential to ensuring a competitive market for generation by providing a way for independent power producers to enter the interconnection queue.¹³⁰⁰ MISO supports the concept of commercial readiness deposits, with the first one due at the time of submission of an interconnection request, which would then be forfeited if the interconnection request does not result in an LGIA, and a second, higher deposit due at the time of execution of an LGIA, to be refunded upon a generating facility achieving

commercial operation.¹³⁰¹ MISO also supports the Commission's proposal to make these deposits separate from, and in addition to, study deposits, as well as MISO's existing milestone requirements in its interconnection study process. MISO believes that these proposals could be a useful deterrent to speculative or unviable interconnection requests entering into or lingering in MISO's interconnection queue.

669. MISO TOs argue that, in keeping with the overall theme of flexibility and respect for regional differences, the Commission should afford transmission providers flexibility to adopt readiness requirements and deposit amounts that are appropriate for their regions.¹³⁰² MISO suggests deposits could consist of two components: (1) a minimum amount per interconnection request, regardless of proposed service levels, and (2) a per MW amount.¹³⁰³ MISO asks that the commercial readiness deposit increase the pool of money available to offset cost shifts, and any additional monies be utilized to defray the study costs of interconnection customers that actually reach commercial operation.

670. Some commenters argue that allowing deposits and security to be posted in lieu of demonstrating commercial readiness may not be sufficient to accomplish the NOPR's goals,¹³⁰⁴ and may, in fact, hinder the NOPR's goals.¹³⁰⁵ APPA-LPPC assert that the financial commitments proposed in the NOPR, while not insignificant, do not reflect the potentially substantial cost of continuing to tolerate the ongoing uncertainty.¹³⁰⁶ APS claims that, in its experience, speculative interconnection requests are well-funded but may not be commercially viable.¹³⁰⁷ Tri-State asserts that the fact that all 53 applicants in its 2022 interconnection queue elected to provide additional financial security at phase 1 in its study process, instead of one of three readiness milestones, demonstrates that deposits are not effective at deterring unready interconnection requests from entering the interconnection queue.¹³⁰⁸

671. Other commenters recommend changes to the Commission's proposal.

¹³⁰¹ MISO Initial Comments at 60.

¹³⁰² MISO TOs Initial Comments at 29.

¹³⁰³ MISO Initial Comments at 61.

¹³⁰⁴ APS Initial Comments at 15; EEI Initial Comments at 7–8; Idaho Power Initial Comments at 7; Omaha Public Power Initial Comments at 8; Southern Initial Comments at 8.

¹³⁰⁵ APPA-LPPC Initial Comments at 19; APS Initial Comments at 15; Omaha Public Power Initial Comments at 8; Southern Initial Comments at 9–10.

¹³⁰⁶ APPA-LPPC Initial Comments at 19.

¹³⁰⁷ APS Initial Comments at 15.

¹³⁰⁸ Tri-State Initial Comments at 15–16.

¹²⁹¹ SEIA Initial Comments at 25.

¹²⁹² SoCal Edison Initial Comments at 8.

¹²⁹³ Avangrid Initial Comments at 15.

¹²⁹⁴ Anbaric Initial Comments at 17–18.

¹²⁹⁵ Eversource Initial Comments at 18.

¹²⁹⁶ Fervo Energy Initial Comments at 4.

¹²⁹⁷ ENGIE Initial Comments at 6; SEIA Initial Comments at 25.

¹²⁹⁸ AEE Initial Comments at 24; Clean Energy Associations Initial Comments at 38; NextEra Initial Comments at 24; SEIA Initial Comments at 22–25; Vistra Initial Comments at 6–7.

¹²⁹⁹ SoCal Edison Initial Comments at 9.

¹³⁰⁰ Northwest and Intermountain Initial Comments at 12.

For instance, North Dakota Commission recommends either removing the deposits in lieu of demonstrating readiness or increasing readiness deposit amounts to an amount that provides a quantifiable, evidence-based reduction in speculative interconnection requests.¹³⁰⁹

672. PacifiCorp states that its interconnection process also allows an interconnection customer to make a payment of \$3,000/MW in lieu of meeting commercial readiness demonstration requirements.¹³¹⁰ PacifiCorp expresses concern that the NOPR proposal would reduce the payment obligation (in comparison to what is required today under PacifiCorp's LGIP), thus lowering the bar for more speculative interconnection requests to enter the interconnection queue and increasing risks for further study delays.

673. CAISO contends that the Commission's proposed deposit requirements are low, such that any modern interconnection customer could meet them.¹³¹¹ CAISO questions whether the deposit requirements (or any deposit requirements) would deter uncompetitive interconnection requests or reduce interconnection queue sizes. CAISO argues that using arbitrary figures to set deposit requirements is unlikely to yield meaningful results. CAISO urges the Commission to gather more data or hold a technical conference to develop meaningful deposit amounts, based on data provided by transmission providers.

674. EEI and NRECA suggest further reducing potential risks of speculative interconnection requests by making deposits non-refundable.¹³¹² NRECA argues that the deposit in lieu of readiness should only be refunded when the interconnection customer has provided an appropriate commercial readiness demonstration or achieves commercial operation, adding that allowing any other refund of this deposit dilutes the effectiveness of this readiness requirement.¹³¹³ EEI and NYTOs assert that a deposit in lieu of readiness should only be allowed in limited circumstances.¹³¹⁴

675. Commenters urge the Commission to decline to adopt a commercial readiness standard that is tied to the status of an interconnection

customer's off-take arrangements and instead to adopt an increasingly "at-risk" readiness deposit framework, similar to what has been accepted in various RTOs/ISOs.¹³¹⁵ They contend that more directly associating readiness deposits to the estimated costs and likely impact to other interconnection customers if an interconnection customer withdraws would provide greater accountability for interconnection customers and transmission providers.¹³¹⁶

676. PJM and Omaha Public Power assert that the Commission should consider basing the readiness deposit amount on an average cost of network upgrades in the region determined during previous studies, as this method would be based on a less arbitrary valuation than as proposed.¹³¹⁷ SEIA urges the Commission to set the value of the deposit amount as a percentage of the estimated network upgrade costs, which should be capped at \$2 million.¹³¹⁸ rPlus recommends a commercial readiness deposit of \$2,000/MW, noting that this figure is common in industry practice.¹³¹⁹

677. Some commenters contend that the level of the proposed readiness deposits is too high and should be significantly revised.¹³²⁰ Pattern Energy requests that the Commission clarify if these deposits are additive or whether they would require an interconnection customer to have available seven times the study deposit amount by the time the interconnection request reaches the facilities study phase. Pattern Energy states that if the payments are additive, then the Commission would be requiring an interconnection customer to have 14 times its initial study deposit on hand by the time the interconnection customer reaches the LGIA milestone, which Pattern Energy contends would be unreasonable.¹³²¹

678. Invenergy argues that depositing as much as \$3.5 million before learning

how much must be spent on network upgrades is not reasonable.¹³²² ACE-NY argues that the deposit values for the second cluster and beyond should be limited to just two times the study deposit amount.¹³²³ CREA and NewSun contend that the hefty deposits will bar smaller companies with less access to capital from competing and entering the interconnection study process.¹³²⁴ CREA and NewSun argue that the NOPR's deposit levels are purely arbitrary and appear aimed at driving interconnection customers out of the interconnection process rather than measurably improving the process.

679. National Grid requests clarification that transmission providers may deduct from a to-be-retained deposit any expenses incurred by the transmission provider in administering the respective escrow account.¹³²⁵

680. Pattern Energy contends that the Commission must clarify that deposits will be applied toward future security obligations if a generating facility reduces its size as it progresses through the interconnection process.¹³²⁶ Pattern Energy states that if the size of an interconnection request is reduced, in accordance with allowable reduction amounts, then: (1) future deposits should be based on the *new* generating facility size; and (2) previous deposits should be credited toward future deposits based on the portion of those previous deposits that are associated with the reduced MW quantity.

(d) Requests for Flexibility

681. Several commenters generally support the proposed commercial readiness requirements but ask the Commission to provide flexibility to allow transmission providers to determine the detailed readiness and deposit criteria for their footprint.¹³²⁷ These commenters argue that such measures need to be carefully balanced to avoid overly burdening interconnection customers with legitimate interconnection requests that are delayed for reasons out of their control. For example, NY Commission

¹³⁰⁹ North Dakota Commission Initial Comments at 5.

¹³¹⁰ PacifiCorp Initial Comments at 30.

¹³¹¹ CAISO Initial Comments at 19–20.

¹³¹² EEI Initial Comments at 8; NRECA Initial Comments at 9.

¹³¹³ NRECA Initial Comments at 29.

¹³¹⁴ EEI Initial Comments at 7; NYTOs Initial Comments at 20.

¹³¹⁵ AEE Initial Comments at 20, 24–25; AES Clean Energy Initial Comments at 16–19; Clean Energy Associations Initial Comments at 39; EPSA Initial Comments at 10; Indicated PJM TOs Initial Comments at 30–31; Invenergy Initial Comments at 16; MISO Initial Comments at 64–65; R Street Initial Comments at 13; Shell Initial Comments at 15–16.

¹³¹⁶ AEE Initial Comments at 20, 24–25; AES Clean Energy Initial Comments at 16–19; Clean Energy Associations Initial Comments at 39; EPSA Initial Comments at 10; Indicated PJM TOs Initial Comments at 30–31; Invenergy Initial Comments at 16; MISO Initial Comments at 64–65; R Street Initial Comments at 13; Shell Initial Comments at 15–16.

¹³¹⁷ Omaha Public Power Initial Comments at 8; PJM Initial Comments at 35.

¹³¹⁸ SEIA Initial Comments at 25.

¹³¹⁹ rPlus Initial Comments at 4.

¹³²⁰ CREA and NewSun Initial Comments at 63; ACE-NY Initial Comments at 7; Invenergy Initial Comments at 15–16.

¹³²¹ Pattern Energy Initial Comments at 31.

¹³²² Invenergy Initial Comments at 15–16.

¹³²³ ACE-NY Initial Comments at 7.

¹³²⁴ CREA and NewSun Initial Comments at 65.

¹³²⁵ National Grid Initial Comments at 24–25.

¹³²⁶ Pattern Energy Initial Comments at 31.

¹³²⁷ Avangrid Initial Comments at 15; Dominion Initial Comments at 25; Dominion Reply Comments at 10, 13–14; El Paso Electric Initial Comments at 4; Invenergy Initial Comments at 12; ISO-NE Initial Comments at 31; National Grid Initial Comments at 25; NEPOOL Initial Comments at 14; NESCOE Reply Comments at 8; NY Commission and NYSEDA Initial Comments at 8; NYISO Initial Comments at 23; NYTOs Initial Comments at 20; Pacific Northwest Utilities Initial Comments at 2–4.

and NYSERDA explain that, in New York, renewable energy certificates procured by NYSERDA could demonstrate commercial readiness, and a similar state agency certificate could be used in a different state.¹³²⁸

682. Pacific Northwest Utilities claim that it would be difficult for transmission providers to implement the commercial readiness proposal in regions such as the Northwest without reforming RFP processes and coordinating amongst multiple transmission owners and LSEs.¹³²⁹ Pacific Northwest Utilities explain that many generating facilities in the Pacific Northwest use interconnection and transmission services crossing multiple balancing authority areas, which require coordination of timelines, milestones, and off-ramps in both the RFPs and interconnection queues.

(e) Miscellaneous

683. Enel supports the proposed modification to *pro forma* LGIP section 11.3 to require submission of the development milestones concurrently with returning the executed LGIA so that the interconnection customer cannot avoid the demonstration required by *pro forma* LGIP section 11.3 by suspending its LGIA.¹³³⁰ However, Enel notes that it is important for the Commission to retain (and reinstitute where removed by specific transmission providers) the ability for interconnection customers to suspend work under their LGIAs for up to three years.

684. Arizona Commission generally supports the prioritization of commercially ready projects and agrees with the proposed readiness criteria, but also encourages the Commission to consider the possibility of allowing market forces to provide discipline to the interconnection process, such as by allowing transmission owners to prioritize generation projects through the use of competitive solicitations.¹³³¹

685. The Colorado Commission generally supports prioritizing commercially ready interconnection requests and agrees with the proposed readiness criteria.¹³³² However, the Colorado Commission emphasizes that the NOPR does not include a mechanism to prioritize among the many viable, and competing, interconnection requests when interconnection service capacity is

scarce.¹³³³ The Colorado Commission argues that, under existing RTO/ISO interconnection processes as well as the proposed revised *pro forma* LGIP, there is limited ability in the interconnection process to consider the generating facility's broader attributes from a system perspective, including cost, timing, location, and resource type.¹³³⁴ The Colorado Commission asserts that new proposed generating facilities would likely be stuck in cluster studies with no clear or timely prioritization that ensures that the lowest cost or highest value generating facilities come online quickly and at a reasonable cost. The Colorado Commission contends that prioritizing native load and end-use customers and third-party owned generating facilities through competitive bid processes is the most logical criteria to maintain a reliable system at reasonable cost.¹³³⁵ To accomplish this, and help the system rationally move forward in a timely manner, the Colorado Commission suggests adding the following additional language to the commercial readiness section: "RTOs and Transmission Providers shall have the ability to create a separate cluster study process or other mechanisms to prioritize executed contracts that serve and benefit native load in accordance with local load-serving resources needs and priorities as determined through equitable competitive bid processes."¹³³⁶

686. AEE, on the other hand, responds to the Colorado Commission by arguing that allowing transmission providers to prioritize generating facilities that are selected through IRP processes or utility procurements and that benefit native load could allow vertically integrated utilities to push preferred generating facilities through the interconnection process and therefore comes with a risk of discrimination.¹³³⁷

687. CESA argues that proposals to prioritize and favor certain generating facilities and interconnection customers must be rejected as violating the Commission's long-standing policies on open access and non-discriminatory interconnection procedures.¹³³⁸ CESA contends that the Colorado Commission's proposal is therefore unduly discriminatory and also goes

well beyond what the Commission contemplated in the NOPR.

688. Clean Energy Associations state that they support the Commission's instead accepting regionally specific proposals that would align the interconnection process with competitive procurements associated with resource planning, rather than placing them at odds.¹³³⁹ Clean Energy Associations state that projects selected through competitive procurement processes are ready projects, and these processes attempt to consider the transmission (interconnection service and transmission service) costs and the production-related costs. Clean Energy Associations state that one way to accomplish this might be to grant resource solicitation clusters a queue position distinct from other clustered projects, but that concept could be extended to ensure more certainty to the bidder and the resource planning entity of the interconnection and delivery requirements and associated rights.

689. Bonneville sees value in applying commercial readiness requirements to the *pro forma* SGIP and SGIA and contends that failing to do so could create a perverse incentive for interconnection customers to break up large projects into smaller projects to avoid stringent commercial readiness requirements under the *pro forma* LGIP.¹³⁴⁰

iii. Commission Determination

690. We adopt a modified NOPR proposal to revise sections 3.4.2, 7.5, 8.1, and 11.3 of the *pro forma* LGIP, insofar as they require interconnection customers to submit commercial readiness deposits, and we do not adopt the NOPR proposal insofar as it included non-financial commercial readiness demonstrations in the *pro forma* LGIP. To effectuate the requirements that we adopt in this final rule, we modify the proposed revisions to sections 3.4.2, 7.5, and 8.1 to remove the proposed readiness demonstrations and to require that the interconnection customer submit the commercial readiness deposit at the beginning of each study in the cluster study process (*i.e.*, the initial cluster study, the cluster restudy, and the facilities study). For the commercial readiness deposit submitted to enter the cluster restudy and the commercial readiness deposit to enter the facilities study, we also modify the NOPR proposal to move from commercial readiness deposits based on study deposit amounts to commercial

¹³²⁸ NY Commission and NYSERDA Initial Comments at 9.

¹³²⁹ Pacific Northwest Utilities Initial Comments at 4–5.

¹³³⁰ Enel Initial Comments at 45.

¹³³¹ Arizona Commission Initial Comments at 2.

¹³³² Colorado Commission Initial Comments at 1.

¹³³³ *Id.* at 2.

¹³³⁴ *Id.* at 7.

¹³³⁵ *Id.* at 28.

¹³³⁶ *Id.* The Colorado Commission also notes that some or all of this proposed language may be more appropriate for section 4 (Queue Position) of the *pro forma* LGIP.

¹³³⁷ AEE Reply Comments at 16.

¹³³⁸ CESA Reply Comments at 11.

¹³³⁹ Clean Energy Associations Initial Comments at 38.

¹³⁴⁰ Bonneville Initial Comments at 24–25.

readiness deposits based on percentages of the interconnection customer's identified network upgrade costs. We also modify proposed section 11.3 of the *pro forma* LGIP to remove the language providing that one of the proposed readiness demonstrations can be provided when the interconnection customer returns the executed LGIA or requests that the LGIA be filed unexecuted. We also adopt the definition of commercial readiness deposit but do not adopt the definition of commercial readiness demonstration. We discuss each in turn.

691. We believe that, along with the other reforms adopted in this final rule, the commercial readiness deposits we require will address the need for reform underlying this section by helping reduce the submission of speculative, commercially non-viable interconnection requests into interconnection queues.¹³⁴¹ Further, because the interconnection customer's total commercial readiness deposit held by the transmission provider increases as the interconnection process proceeds, we find that this approach will encourage interconnection customers not ready to proceed through the interconnection process—or whose projects become commercially non-viable during the interconnection process—to withdraw earlier in the process, thereby lessening the incidence of late-stage withdrawals that result in delays and restudies. Similarly, by basing the cluster restudy and the facilities study commercial readiness deposits on the interconnection customer's identified network upgrade cost assignment, an interconnection customer will be subject to the cost consequences of its estimated network upgrades *earlier*. As a result, this approach will encourage interconnection customers to withdraw *earlier* in the interconnection process if they face large network upgrade initial cost assignments or encounter other concerns that cause their interconnection request to be uneconomic. By reducing the number of speculative interconnection requests submitted into the interconnection queue and the number of late-stage withdrawals of interconnection requests, we believe that the commercial readiness deposit requirements that we adopt herein will also enable commercially viable interconnection requests to progress more quickly through the interconnection process.

Transmission providers will be able to focus their resources on those interconnection requests most likely to achieve commercial operation, to the benefit of all interconnection customers.¹³⁴²

692. The commercial readiness deposit amounts proposed in the NOPR are tied to generating facility size, as they are based on the initial study deposit, which is likewise tied to generating facility size. We adopt the NOPR proposal for the initial commercial readiness deposit, where the interconnection customer pays a deposit of two times the study deposit to enter the cluster study. Basing the initial commercial readiness deposit on the size of the generating facility aligns the size of the deposit roughly with any impact from a withdrawal of the interconnection request, as generally, all else equal, increasing the size of the generating facility increases the likelihood of larger, more costly network upgrades and a greater change in interconnection study inputs.

693. However, we are persuaded by several commenters that commercial readiness deposits should be based on assigned network upgrade costs.¹³⁴³ Therefore, we modify the remaining commercial readiness deposits (*i.e.*, the second and third commercial readiness deposits) such that, rather than relying on multiples of the initial study deposit, once estimates of network upgrade costs are available, the commercial readiness deposits equate to increasing percentages of the interconnection customer's identified network upgrade cost assignment. Specifically, we adopt a deposit structure where the commercial readiness deposit to enter

the cluster restudy is the amount required to bring the total amount of the interconnection customer's commercial readiness deposit to 5% of the interconnection customer's network upgrade cost assignment identified in the cluster study, and the commercial readiness deposit to enter the facilities study is the amount required to bring the total amount of the interconnection customer's commercial readiness deposit to 10% of the interconnection customer's network upgrade cost assignment identified in the cluster study or restudy, as applicable.¹³⁴⁴ We find that tying the commercial readiness deposits to the network upgrade cost estimate requires the interconnection customer to deposit an amount that corresponds to its network upgrade cost estimates earlier and, thereby, can incentivize interconnection customers with large network upgrade cost estimates to withdraw at earlier points in the interconnection process to the extent the network upgrade cost assignment causes the interconnection request to no longer be viable. This approach achieves the Commission's goals of ensuring that interconnection customers are able to interconnect in a reliable, efficient, transparent, and timely manner.

694. We decline to adopt the non-financial commercial readiness demonstrations proposed in the NOPR. We find that the non-financial commercial readiness demonstrations are not necessary to address the subject of these reforms—providing additional deterrence of speculative, commercially non-viable interconnection requests—given the significant, increasing commercial readiness deposits we adopt instead.¹³⁴⁵

695. We are also persuaded by commenters who express concerns that the non-financial commercial readiness demonstrations in the NOPR proposal may not necessarily serve as appropriate indicators of a proposed generating facility's commercial viability on a national basis. In some instances, the proposed non-financial commercial readiness demonstrations may be unavailable to interconnection customers with commercially viable projects. For example, this may be true as a result of a misalignment of the timing between resource procurement

¹³⁴² Alliant Energy Initial Comments at 6; Avangrid Initial Comments at 9; Consumer Energy Initial Comments at 5; EEI Initial Comments at 6–7; NERC Initial Comments at 26; Google Initial Comments at 20; Idaho Power Initial Comments at 7; MISO TOs Initial Comments at 28–29; NARUC Initial Comments at 10; NESCOE Initial Comments at 13; North Carolina Commission and Staff Initial Comments at 26; Ohio Commission Consumer Advocate Initial Comments at 12; Omaha Public Power Initial Comments at 9; Pacific Northwest Utilities Initial Comments at 3, 6; Pennsylvania Commission Initial Comments at 14; U.S. Chamber of Commerce Initial Comments at 9; UMPA Initial Comments at 5.

¹³⁴³ For assertions that more directly associating commercial readiness deposits to the estimated costs and likely impact to other interconnection customers in the case of withdrawal would provide greater accountability for interconnection customers and transmission providers, see AEE Initial Comments at 24–25; AES Clean Energy Initial Comments at 16–19; CAISO Initial Comments at 23–24; Clean Energy Associations Initial Comments at 39; EPSA Initial Comments at 10; Indicated PJM TOs Initial Comments at 30–31; Invenergy Initial Comments at 16; MISO Initial Comments at 64–65; R Street Initial Comments at 13; Shell Initial Comments at 15–16.

¹³⁴⁴ See SEIA Initial Comments at 25 (urging the Commission to set the value of the commercial readiness deposit as a percentage of the estimated network upgrade costs).

¹³⁴⁵ See *N.Y. v. FERC*, 535 U.S. 1, 27 (2002) (declining to require reforms where “FERC determined that the remedy it ordered constituted a sufficient response to the problems FERC had identified”).

¹³⁴¹ SoCal Edison Initial Comments at 9, Northwest and Intermountain Initial Comments at 12, MISO Initial Comments at 60, PJM Initial Comments at 35.

decisions and interconnection study processes or inconsistency with a relevant local commercial practice, rather than because the proposed generating facilities lack commercial viability.

696. As commenters note, resource procurement efforts across the country all have different timelines, and the timeline to demonstrate commercial readiness proposed in the NOPR was not tailored to meet the timelines of multiple state procurement efforts.¹³⁴⁶ As commenters explain, an interconnection queue position is often a precondition of offering into a resource solicitation.¹³⁴⁷ We agree that, absent a regionally tailored tariff process pursuant to which commercial readiness criteria could be aligned with applicable resource solicitation processes, the commercial readiness criteria proposed in the NOPR may not be workable in markets where merchant sales are common, and this generally applicable final rule is not an appropriate forum to dictate regionally tailored solutions.

697. We are further concerned that there may be trade-offs entailed in requiring the proposed non-financial commercial readiness demonstrations, which are more appropriately assessed on a regional, rather than national basis. We agree with Enel that ratepayers may benefit from generating facilities being selected in competitive processes that consider the facilities' interconnection costs and schedule, which cannot be done if off-take arrangements are made prior to applying for interconnection service.

698. In addition, we are concerned that the proposed non-financial commercial readiness demonstrations could incentivize power purchasers in some regions to execute purchase contracts with interconnection customers whose generating facilities will later be determined to be commercially non-viable. As commenters note, this could lead to purchasers having to start the procurement process over or choose to over-procure as insurance against potential contract termination, to the detriment of reliability and cost.

699. Therefore, we are persuaded to adopt a framework that requires a commercial readiness deposit for all interconnection customers, similar to what the Commission has accepted in

various RTO/ISO regions.¹³⁴⁸ We find that requiring deposits in amounts substantial enough to demonstrate commitment to reaching commercial operation at progressive milestones throughout the interconnection process will be a sufficient deterrent to speculative behavior—especially when considered as part of the comprehensive package of reform, including increased site control requirements, increased study deposits, and withdrawal penalties, established by this final rule.

700. In the NOPR, the Commission acknowledged the potential that certain non-financial commercial readiness demonstrations *could* provide an unduly discriminatory or preferential advantage to projects being developed by transmission providers or their affiliates.¹³⁴⁹ As summarized above, several commenters have raised—and elaborated on—those concerns. Because we find that the commercial readiness deposits that we adopt in this final rule are sufficient to address the relevant need for reform, and therefore do not adopt the proposed non-financial commercial readiness demonstrations, we need not further address those concerns in this final rule.

701. We recognize that the Commission has previously accepted proposals that include commercial readiness demonstration requirements similar to those proposed in the NOPR. Although we find that commercial readiness deposits are sufficient to address the need for reform in this proceeding, this finding does not preclude transmission providers from adopting non-financial commercial readiness demonstrations, provided they meet the relevant standards when requesting a variation, as discussed above.

702. Some commenters suggest that the Commission could add government and environmental permits as commercial readiness demonstrations as an indicator of commercial readiness that is viable both for independent power producers and for transmission providers and their affiliates.¹³⁵⁰ Although the record provides some support for this, we are concerned that permits and studies may expire due to the length of the interconnection process, and those re-permitting and restudy efforts are still at risk of

rejection or failure, which could lead to late-stage withdrawals.¹³⁵¹ We are also concerned about the possible administrative burden placed on transmission providers, as they must determine which types of permits should be accepted as commercial readiness demonstrations and evaluate the validity of different permits submitted by interconnection customers.

703. Pattern Energy requests that the Commission clarify whether the commercial readiness deposits are additive, meaning that, as each phase of the interconnection process is reached, the full amount of each new readiness deposit must be added on top of the full amounts of earlier readiness deposits (as opposed to merely increasing the total amount of the aggregate readiness deposit to match the level specified for that phase). In response, we clarify that, as modified, the commercial readiness deposits in sections 7.5 and 8.1 of the *pro forma* LGIP make clear that for the second and third commercial readiness deposits, the interconnection customer is only required to submit an additional deposit that brings the total commercial readiness deposit to the amount specified in sections 7.5 and 8.1 of the *pro forma* LGIP (5% of the interconnection customer's identified network upgrade cost estimate and 10% of the interconnection customer's identified network upgrade cost estimate, respectively).

704. In response to comments on the magnitude of commercial readiness deposits (e.g., too high or too low), we reiterate that the commercial readiness deposits are part of a package of reforms meant to deter speculative behavior that also includes site control requirements and withdrawal penalties. Thus, the commercial readiness deposits are not intended to be of such magnitude to alone prevent speculative behavior as they are intended to work together with other reforms adopted in this final rule, such as site control and withdrawal penalties. We believe that the deposits should not be so high that viable projects from smaller developers are unable to enter the queue. At the same time, they will only achieve the aims if they are sufficiently high to serve as some deterrent, in concert with the other relevant reforms adopted in this final rule. In response to National Grid's request that the final rule provide for the deduction from a to-be-retained deposit of any expenses incurred by the transmission provider or RTO/ISO in administering the respective escrow account, we note that Order No. 2003

¹³⁴⁸ See, e.g., *Midcontinent Indep. Sys. Operator, Inc.*, 158 FERC ¶ 61,003 (2017); *Sw. Power Pool, Inc.*, 178 FERC ¶ 61,015 (2022).

¹³⁴⁹ NOPR, 179 FERC ¶ 61,194 at P 132.

¹³⁵⁰ ClearPath Initial Comments at 9; CREA and NewSun Initial Comments at 71; Enel Initial Comments at 47; Longroad Energy Initial Comments at 17; Northwest and Intermountain Initial Comments at 11; Vistra Initial Comments at 11.

¹³⁴⁶ AEE Initial Comments at 21; SoCal Edison Initial Comments at 7–8; Vistra Initial Comments 6–10.

¹³⁴⁷ See Cypress Creek Initial Comments at 22–23; NextEra Initial Comments at 24; Public Interest Organizations Initial Comments at 29.

¹³⁵¹ Enel Initial Comments at 47.

required the collection of various deposits without addressing this type of administrative expense.¹³⁵² We find, in this instance, that there is no need to deviate from Order No. 2003, and we decline to adopt tariff revisions to address the management of an escrow account.

705. In response to Pattern Energy's request for clarification of the commercial readiness deposit amounts in the event that an interconnection customer reduces the size of a proposed generating facility, we clarify that because the modified commercial readiness deposit structure is based on network upgrade cost estimates, a size reduction to a proposed generating facility may or may not impact the remaining commercial readiness deposits, depending on whether the size reduction reduces the interconnection customer's assigned network upgrade costs. This is consistent with the requirements for entering the cluster restudy and facilities study adopted in *pro forma* LGIP sections 7.5 and 8.1, respectively, which require commercial readiness deposits based on percentages of the interconnection customer's identified network upgrade costs.

706. Pattern Energy's request to require that previous deposits be credited towards future deposits based on the portion of those previous deposits that are associated with the reduced MW quantity therefore represents the modified commercial readiness deposit framework we adopt. Under this modified framework, an interconnection customer's previous commercial readiness deposits are effectively credited when it pays later commercial readiness deposits (*i.e.*, the second and third commercial readiness deposits); it pays the required amount of a commercial readiness deposit less the amounts paid for through earlier commercial readiness deposits.

707. We also decline to adopt Bonneville's suggestion to add the commercial readiness provisions to the SGIP because the record does not demonstrate a need for such reform at this time. Because we are not adopting the proposed non-financial commercial readiness demonstrations, we do not address comments proposing revisions or clarifications to those demonstrations. Additionally, several commenters provide additional suggestions for the NOPR proposal, including: (1) addressing the Commission's rules for suspending an

LGIA;¹³⁵³ (2) addressing queue priority;¹³⁵⁴ and (3) better supporting competitive procurement processes.¹³⁵⁵ We find these comments to be outside the scope of the NOPR.

d. LGIA Deposit

i. NOPR Proposal

708. In the NOPR, the Commission proposed to require interconnection customers to submit a deposit equal to nine times the amount of its study deposit when executing the LGIA or requesting the filing of an unexecuted LGIA. The Commission explained that this deposit would be fully refunded once the generating facility achieves commercial operation, but if the interconnection customer withdraws after executing the LGIA or after requesting the filing of an unexecuted LGIA, this deposit would be refunded subject to the withdrawal penalty.¹³⁵⁶ The Commission also sought comment on whether to adopt additional provisions or a different framework that would require larger proposed generating facilities to provide a higher deposit amount—such as a per MW framework.¹³⁵⁷

ii. Comments

709. MISO supports the proposal to require interconnection customers to submit a deposit equal to nine times the amount of its study deposit at LGIA execution because MISO believes it is necessary to continue the commercial readiness deposit and withdrawal penalty framework until the interconnection request achieves commercial operation.¹³⁵⁸ Shell supports the security deposit obligations used in MISO's and SPP's generator interconnection processes, which include a deposit at LGIA execution.¹³⁵⁹

710. Invenergy argues that requiring more security at LGIA execution, in addition to the other proposed burdens on interconnection customers in the NOPR, goes beyond the goal of disincentivizing speculative interconnection requests to creating potentially prohibitive burdens on all interconnection customers, including those with commercially viable proposed generating facilities.¹³⁶⁰

Invenergy contends that, while a deposit based on study costs may make sense in earlier stages of the study process when assigned network upgrade costs are not yet known, it is not appropriate after an LGIA is executed and assigned network upgrade costs are known and memorialized. ACE–NY and AES oppose any additional deposits due from an interconnection customer at the signing of the LGIA that are not tied to network upgrade costs.¹³⁶¹ AES asserts that in many RTOs/ISOs, interconnection customers have to post security for a portion, if not all, of the assigned network upgrade costs associated with an interconnection request, and such posted security is a sufficient incentive to keep an interconnection customer engaged so that they will complete a generating facility after the LGIA is executed.¹³⁶²

711. Several commenters argue that the Commission's LGIA deposit proposal is excessive and potentially exposes ratepayers to unjust and unreasonable costs.¹³⁶³ Ørsted would support a lower amount, such as two times the study deposit, because it believes that the current proposal would not necessarily accurately estimate the costs of required network upgrades.¹³⁶⁴ PJM contends that the Commission should allow transmission providers to adopt security amounts and structures that are rationally related to relevant costs.¹³⁶⁵ Cypress Creek asks the Commission to provide a non-arbitrary basis for its proposed security deposit of nine times the study deposit.¹³⁶⁶ Shell argues that the LGIA deposit appears to be a security deposit and adds that MISO and SPP use a separate security deposit obligation that the Commission should consider.¹³⁶⁷

712. Several commenters argue that study deposits should be refunded in certain circumstances.¹³⁶⁸ Invenergy argues that any deposit due at LGIA execution should be subject to a \$2 million cap and that deposit should be released dollar for dollar as the interconnection customer posts security or makes required payments under the LGIA.¹³⁶⁹ Invenergy asks that the

¹³⁶¹ ACE–NY Initial Comments at 5; AES Initial Comments at 14.

¹³⁶² AES Initial Comments at 14.

¹³⁶³ *Id.*; Clean Energy Associations Initial Comments at 30; ENGIE Initial Comments at 4; Ørsted Initial Comments at 9; PJM Initial Comments at 24; Shell Reply Comments at 22.

¹³⁶⁴ Ørsted Initial Comments at 9.

¹³⁶⁵ PJM Initial Comments at 24.

¹³⁶⁶ Cypress Creek Initial Comments at 53.

¹³⁶⁷ Shell Initial Comments at 19.

¹³⁶⁸ AES Initial Comments at 14; Invenergy Initial Comments at 7; Ørsted Initial Comments at 10; Shell Reply Comments at 23.

¹³⁶⁹ Invenergy Initial Comments at 7–8.

¹³⁵² Order No. 2003, 104 FERC ¶ 61,103 at PP 91–92, 100, 101, 218–219.

¹³⁵³ Clean Energy Associations Initial Comments at 38; PPL Initial Comments at 10.

¹³⁵⁴ Arizona Commission Initial Comments at 2; Colorado Commission Initial Comments at 1–2.

¹³⁵⁵ Clean Energy Associations Initial Comments at 38; Colorado Commission Initial Comments at 1–2, 7, 28.

¹³⁵⁶ NOPR, 179 FERC ¶ 61,194 at P 108.

¹³⁵⁷ *Id.* P 110.

¹³⁵⁸ MISO Initial Comments at 51.

¹³⁵⁹ Shell Initial Comments at 19.

¹³⁶⁰ Invenergy Initial Comments at 6.

Commission also clarify that, in the event a proposed generating facility does not achieve commercial operation, any deposit forfeited under this proposal offsets, and is not in addition to, any withdrawal penalties that may be imposed. Invenenergy adds that it is unreasonable to require that additional deposits be provided when an interconnection customer asks that the LGIA be filed unexecuted, and if the Commission does nonetheless require interconnection customers to post the deposit as a condition of having the LGIA filed unexecuted, the deposit should be refundable if the interconnection customer elects to withdraw within 30 days of the date of the Commission's order in the applicable docket. Ørsted and Shell assert that, for interconnection customers withdrawing after executing the LGIA, all deposits should be refunded in the event that the interconnection customer withdraws as a result of circumstances outside of its control and the withdrawal does not harm any other entity.¹³⁷⁰ AES argues that all study deposits should be refunded at the time of LGIA execution, and opposes any additional deposits not tied to network upgrade costs.¹³⁷¹

713. Southern, on the other hand, argues that making deposits refundable may not be stringent enough and therefore may not accomplish the goals set forth in the NOPR.¹³⁷² NRECA also believes that the Commission should consider whether to make these study deposits non-refundable in the case of withdrawal, as a further disincentive for speculative interconnection requests to enter the interconnection queue.¹³⁷³

iii. Commission Determination

714. We adopt, with modification, the NOPR proposal to revise new section 11.3 of the *pro forma* LGIP to require interconnection customers to submit a deposit when executing the LGIA, or requesting the filing of an unexecuted LGIA, and add the new term "LGIA deposit" to section 1 of the *pro forma* LGIP.¹³⁷⁴ Specifically, we modify the NOPR proposal to require interconnection customers to provide a deposit that will increase the total commercial readiness deposit paid to be

equal to 20% of the estimated network upgrade costs identified in the LGIA, rather than providing a deposit equal to nine times the amount of the interconnection customer's study deposit, as proposed in the NOPR.¹³⁷⁵ Additionally, revised section 11.3 of the *pro forma* LGIP requires that interconnection customers submit the LGIA deposit when returning the executed LGIA to the transmission provider, or within 10 business days of the interconnection customer requesting that the LGIA be filed unexecuted at the Commission.

715. In the NOPR, the Commission sought comment on whether to adopt additional provisions or a different framework for deposits, including the LGIA deposit.¹³⁷⁶ In response, commenters provided suggestions, including suggestions to base deposits on network upgrade costs.¹³⁷⁷ We agree that tying the LGIA deposit to the network upgrade cost estimate sends a more accurate cost signal to the interconnection customer and better aligns the LGIA deposit to its function of ensuring that network upgrades are paid for and constructed than the NOPR proposal. We also agree with commenters that a deposit based on the study deposit amount may make sense in the early stage of the cluster study process when assigned network upgrade costs are not yet estimated, but later in the process, when network upgrade cost estimates are available, the use of percentages of network upgrade cost estimates more closely indicates interconnection request viability.¹³⁷⁸ This approach also addresses comments that the LGIA deposit, as proposed, may have been arbitrary, excessive, and unreasonable.¹³⁷⁹

716. The NOPR proposed that this deposit would be fully refunded once the generating facility achieves commercial operation, but we are modifying the NOPR proposal to remove that statement from *pro forma* LGIP section 11.3, and as explained further below, this deposit will be used as part of the security the interconnection

customer must provide for the construction of network upgrades and transmission provider's interconnection facilities. However, this LGIA deposit could be refunded, subject to the withdrawal penalty, if the interconnection customer withdraws after executing the LGIA or after requesting the filing of an unexecuted LGIA.

717. We also revise the *pro forma* LGIP and *pro forma* LGIA, as suggested by Invenenergy,¹³⁸⁰ to treat the LGIA deposit as part of the security the interconnection customer must provide for the construction of network upgrades and transmission provider's interconnection facilities. Article 11.5 (Provision of Security) of the *pro forma* LGIA requires that, 30 calendar days prior to the commencement of construction under its LGIA, the interconnection customer must provide security for a discrete portion of network upgrades and transmission provider's interconnection facilities, as specified in its LGIA. We revise section 11.3 of the *pro forma* LGIP and article 11.5 of the *pro forma* LGIA to require the transmission provider to use the LGIA deposit, in its entirety, before requiring the interconnection customer to submit additional security for construction of network upgrades and transmission provider's interconnection facilities. By allowing the transmission provider to draw down this LGIA deposit as construction proceeds, the construction of network upgrades and transmission provider's interconnection facilities can commence quickly thereby streamlining the interconnection process. With this revision, requiring the LGIA deposit to be returned at commercial operation is now unnecessary as there will be no deposit remaining to return; therefore, we decline to adopt the NOPR proposal to do so.¹³⁸¹

718. We also revise article 11.5 of the *pro forma* LGIA to require transmission providers to draft Appendix B (Milestones) of the interconnection customer's LGIA to clearly explain and estimate at which point of construction the interconnection customer's LGIA deposit will be depleted, and the interconnection customer must provide additional financial security. In the event the interconnection customer requests suspension of the LGIA under article 5.16 of its LGIA prior to the commencement of construction, the transmission provider is prohibited from using the LGIA deposit to commence construction until the

¹³⁷⁰ Ørsted Initial Comments at 10; Shell Reply Comments at 23.

¹³⁷¹ AES Initial Comments at 14.

¹³⁷² Southern Initial Comments at 8–9.

¹³⁷³ NRECA Initial Comments at 26.

¹³⁷⁴ LGIA deposit shall "mean the deposit Interconnection Customer submits when returning the executed LGIA, or within 10 Business Days of the LGIA being filed unexecuted at the Commission, in accordance with Section 11.3 of this LGIP."

¹³⁷⁵ At LGIA execution or at the time the request is made to file the unexecuted LGIA, the interconnection customer must deposit the difference between its total commercial readiness deposits submitted at that point and 20% of its estimated network upgrade cost responsibility.

¹³⁷⁶ NOPR, 179 FERC ¶ 61,194 at P 110.

¹³⁷⁷ See, e.g., Longroad Reply Comments at 13; PJM Initial Comments at 24.

¹³⁷⁸ ACE–NY Initial Comments at 5; AES Initial Comments at 14; Invenenergy Initial Comments at 6.

¹³⁷⁹ AES Initial Comments at 14; Clean Energy Associations Initial Comments at 30; ENGIE Initial Comments at 4; Ørsted Initial Comments at 9; PJM Initial Comments at 24; Shell Reply Comments at 22.

¹³⁸⁰ Invenenergy Initial Comments at 7.

¹³⁸¹ NOPR, 179 FERC ¶ 61,194 at P 108.

interconnection customer requests to exit suspension and resume construction, unless there is a need for the transmission provider to use a portion of the LGIA deposit to ensure its system is left in a reliable condition during the period of suspension.

719. We do not adopt the suggestion of Ørsted and Shell that, for interconnection customers withdrawing their interconnection requests after executing an LGIA, all deposits should be refunded if withdrawal is the result of circumstances outside the interconnection customer's control and the withdrawal does not harm other entities.¹³⁸² We believe that the exceptions to the application of withdrawal penalties discussed in the section III.A.6.e below appropriately balance the need to deter withdrawals with the reality that withdrawal is not always due to circumstances within interconnection customers' control.

720. In response to Southern's comments that making both study and LGIA deposits refundable may not be stringent enough and therefore may not disincentivize speculative interconnection requests,¹³⁸³ we reiterate that, as adopted, the deposits serve different functions. In this instance, the LGIA deposit serves as a credit towards the security the interconnection customer must provide for network upgrades and transmission provider's interconnection facilities. To the extent the LGIA deposit pays for the construction of network upgrades, such a deposit would be refunded through transmission credits in regions that follow the *pro forma* LGIA provisions on crediting.

e. Withdrawal Penalties

i. NOPR Proposal

721. The Commission preliminarily found that withdrawal penalties are

needed to account for the harms that can occur when interconnection customers withdraw from the interconnection queue.¹³⁸⁴ The Commission proposed to revise the *pro forma* LGIP to require transmission providers to assess withdrawal penalties to interconnection customers in certain circumstances. Specifically, the Commission proposed to revise the *pro forma* LGIP to require transmission providers to assess withdrawal penalties to interconnection customers that choose to withdraw at any point in the interconnection process or do not otherwise reach commercial operation, unless: (1) the withdrawal does not delay the timing of other proposed generating facilities in the same cluster; (2) the withdrawal does not increase the cost of network upgrades for other proposed generating facilities in the same cluster; (3) the interconnection customer withdraws after receiving the most recent cluster study report and the costs assigned to the interconnection customer have increased 25% compared to the previous cluster study report; or (4) the interconnection customer withdraws after receiving the individual facilities study report and the costs assigned to the interconnection customer have increased by more than 100% compared to costs identified in the cluster study report.¹³⁸⁵ Thus, the Commission proposed that interconnection customers would be exempt from a withdrawal penalty if the withdrawal does not harm other interconnection customers or if the withdrawal follows a significant unanticipated increase in network upgrade cost estimates.

722. The Commission proposed that the withdrawal penalty would increase as the interconnection customer moves through the study process and would also increase if an interconnection

customer provides a commercial readiness deposit in lieu of a demonstration of commercial readiness.¹³⁸⁶ For an interconnection customer that provides a commercial readiness deposit in lieu of a demonstration of commercial readiness, the Commission proposed that its withdrawal penalty would be higher and increase as the interconnection customer progresses in the interconnection process.

723. The Commission proposed that the withdrawal penalty for an interconnection customer that provides a commercial readiness deposit in lieu of a demonstration of commercial readiness will be the greater of the study deposit or: (1) two times the study cost if the customer withdraws during the cluster study or after receipt of a cluster study report, capped at \$1 million; (2) three times the study cost if the customer withdraws during the cluster restudy or after receipt of any applicable restudy reports, capped at \$1.5 million; (3) five times the study cost if the customer withdraws during the facilities study, after receipt of the individual facilities study report, or after receipt of the draft LGIA, capped at \$2 million; or (4) nine times the study costs if the customer withdraws before achieving commercial operation and after executing the LGIA or filing an unexecuted LGIA.¹³⁸⁷ The Commission also proposed that the withdrawal penalty revenues be used to fund studies conducted under the cluster study process.

724. The table below summarizes the proposed withdrawal penalty structure for both interconnection requests that have demonstrated commercial readiness and those that have not (by instead submitting a deposit in lieu of demonstrating commercial readiness).¹³⁸⁸

Phase of withdrawal	Commercial readiness demonstration provided?	Total withdrawal penalty (if greater than study deposit)	Withdrawal penalty cap
1	Yes	1 times study costs	No Cap.
2	Yes	1 times study costs	No Cap.
3	Yes	1 times study costs	No Cap.
LGIA	Yes	9 times study costs	No Cap.
1	No	2 times study costs	\$1 million.
2	No	3 times study costs	\$1.5 million.
3	No	5 times study costs	\$2 million.
LGIA	No	9 times study costs	No Cap.

¹³⁸² See Ørsted Initial Comments at 10; Shell Reply Comments at 23.

¹³⁸³ Southern Initial Comments at 8–9.

¹³⁸⁴ NOPR, 179 FERC ¶ 61,194 at P 140.

¹³⁸⁵ *Id.* P 141.

¹³⁸⁶ *Id.* P 142 (citing May Joint Task Force Tr. 75:23–76:1 (Kimberly Duffley) (“I think one of the best practices of the new system that [Duke Energy Progress and Duke Energy Carolinas] have implemented is the increase of withdrawal

penalties as the interconnection moves through the process.”)).

¹³⁸⁷ *Id.* P 143.

¹³⁸⁸ *Id.* P 144.

725. The Commission also proposed to add the defined term “withdrawal penalty” to the *pro forma* LGIP.¹³⁸⁹ The Commission sought comment on: (1) how to define the circumstances in which a withdrawal is deemed to have delayed the timing or increased the cost of network upgrades for other proposed generating facilities in the same cluster, including what criteria should be used to determine whether the withdrawal caused the delay or increased cost, and whether to establish a threshold for when a delay or increase in cost will trigger a withdrawal penalty (and if so, what that threshold should be); (2) whether the Commission should consider exceptions to the proposed withdrawal penalties beyond those proposed in the NOPR; (3) whether withdrawal penalties that increase with proposed generating facility size (as measured by MW) would more effectively deter withdrawals that cause the greatest harm; and (4) whether a correlation exists between the size of a withdrawing proposed generating facility and the relative level of harm (in terms of delays and increased cost) to other interconnection customers as a result of the withdrawal.¹³⁹⁰

ii. Comments

(a) Comments in Support

726. Multiple commenters generally support the Commission’s proposed withdrawal penalties and view the proposal as appropriate to reduce the volume of speculative interconnection requests.¹³⁹¹ Environmental Defense Fund states that, if adopted with certain of the other NOPR proposals, the Commission’s proposed withdrawal penalties are appropriate to address the delays and costs caused by speculative interconnection requests.¹³⁹² Eversource states that properly calibrated withdrawal penalties are essential to dissuade withdrawals and reduce study process delays.¹³⁹³

¹³⁸⁹ *Id.* P 145.

¹³⁹⁰ *Id.* PP 145–148.

¹³⁹¹ ACE–NY Initial Comments at 7; Ameren Initial Comments at 18; APPA–LPPC Initial Comments at 17–18; APS Initial Comments at 15; CAISO Initial Comments at 21; Consumers Energy Initial Comments at 5; Dominion Initial Comments at 33; MISO Initial Comments at 66; NARUC Initial Comments at 10; National Grid Initial Comments at 26; NextEra Initial Comments at 6; NRECA Initial Comments at 9; NV Energy Initial Comments at 6; NYTOs Initial Comments at 20–21; Omaha Public Power Initial Comments at 9; PPL Initial Comments at 17; SoCal Edison Initial Comments at 10; U.S. Chamber of Commerce Initial Comments at 9; UMPA Initial Comments at 3–5; Vistra Initial Comments at 6–7.

¹³⁹² Environmental Defense Fund Initial Comments at 4.

¹³⁹³ Eversource Initial Comments at 18.

727. MISO supports the Commission’s proposal to impose a withdrawal penalty on withdrawing interconnection customers, a penalty that MISO suggests should be secured by the commercial readiness deposit.¹³⁹⁴ That said, MISO asserts that the study cost for interconnection requests is not that substantial, and MISO does not believe that paying a withdrawal penalty in the amount of only the study costs would be a sufficient deterrent to prevent speculative interconnection requests from entering or remaining in the interconnection queue.

(b) Comments in Opposition

728. Many commenters oppose the withdrawal penalty proposal.¹³⁹⁵ CREA and NewSun encourage instead better cost certainty for interconnection customers earlier in the study process.¹³⁹⁶ CREA and NewSun suggest that the Commission incorrectly assumes that the interconnection customer has adequate visibility into likely interconnection costs, and thus the financial viability of its proposed generating facility before entering the interconnection queue and becoming liable for these penalties. CREA and NewSun state that the NOPR provides no realistic path to know likely interconnection costs prior to entering the interconnection queue.¹³⁹⁷

729. ENGIE does not support the implementation of withdrawal penalties and notes that withdrawal penalties without meaningful opportunity for interconnection customers to exit the interconnection process are unlikely to incentivize withdrawal.¹³⁹⁸ New York State Department is skeptical that a withdrawal penalty program will be beneficial to ratepayers.¹³⁹⁹

730. Pacific Northwest Organizations claim that, without access to interconnection cost information and with larger withdrawal penalties, independent power producers may be discouraged from entering the

interconnection queue.¹⁴⁰⁰ Some commenters claim that withdrawal penalties (including in a transitional cluster study process) can result in the potential for discrimination against independent power producers.¹⁴⁰¹ These commenters assert that LSEs can recover withdrawal penalties they incur from their retail ratepayers, whereas independent power producers must absorb these costs and risks in their solicitation process bids. Interwest also suggests that the proposed withdrawal penalties are less likely to apply to LSEs than to independent power producers because LSEs will likely be able to use the proposed commercial readiness demonstration path, as opposed to paying the deposits in lieu of demonstrating commercial readiness, and would thus not be subject to the harsher withdrawal penalties.¹⁴⁰² Interwest urges the Commission to require waiver of, or a substantial reduction in, withdrawal penalties from the transition cluster or resource solicitation cluster if the interconnection customer participated in an RFP or other competitive solicitation process but was not ultimately selected, or if a permit becomes unavailable due to some regulatory or regime change.¹⁴⁰³

731. R Street claims that the proposal risks imposing severe anti-competitive barriers to entry.¹⁴⁰⁴ New York State Department makes similar anti-competitive impact arguments.¹⁴⁰⁵ R Street asserts that imposing financial commitments and readiness requirements can create regulatory barriers to entry if they deter interconnection requests for commercially viable generating facilities or increase financing costs.¹⁴⁰⁶ R Street argues that the proposal is misguided because it would add another administrative process that increases implementation complications and costs.¹⁴⁰⁷ R Street suggests that the Commission should instead use a simple loss of deposit as its financial lever.

732. rPlus argues that withdrawal penalties, particularly when coupled with the proposed study deposit requirements and study cost allocations, are unduly discriminatory or punitive to

¹³⁹⁴ MISO Initial Comments at 66–67.

¹³⁹⁵ CREA and NewSun Initial Comments at 74–77; ENGIE Initial Comments at 6; Hydropower Commenters Initial Comments at 26; Interwest Initial Comments at 21; Northwest and Intermountain Initial Comments at 12; New York State Department Initial Comments at 11; Pacific Northwest Organizations Initial Comments at 3–4; rPlus Initial Comments at 5; R Street Initial Comments at 12; SEIA Initial Comments at 25–27; SEIA Reply Comments at 10–11; Shell Initial Comments at 25.

¹³⁹⁶ CREA and NewSun Initial Comments at 74, 77.

¹³⁹⁷ *Id.* at 76.

¹³⁹⁸ ENGIE Initial Comments at 6.

¹³⁹⁹ New York State Department Initial Comments at 11.

¹⁴⁰⁰ Pacific Northwest Organizations Initial Comments at 3–4.

¹⁴⁰¹ Interwest Initial Comments at 21; Northwest and Intermountain Initial Comments at 12.

¹⁴⁰² Interwest Reply Comments at 13–14.

¹⁴⁰³ Interwest Initial Comments at 21.

¹⁴⁰⁴ R Street Initial Comments at 12.

¹⁴⁰⁵ New York State Department Initial Comments at 11.

¹⁴⁰⁶ R Street Initial Comments at 12.

¹⁴⁰⁷ *Id.* at 14.

pumped storage as compared to other renewable technologies.¹⁴⁰⁸ rPlus and Hydropower Commenters claim that, under these proposals, a large capacity pumped storage project (ranging from 400 MW to over 1,000 MW in size, according to rPlus) would expect to hit the maximum deposit and/or penalty in every stage of the interconnection process.¹⁴⁰⁹ rPlus claims that the high cost of entry and the liability associated with withdrawal may give large utilities an unfair advantage in commercial negotiations.¹⁴¹⁰

733. Shell calls for a reconsideration of the withdrawal penalties proposed in the NOPR, claiming that the proposal could disrupt project development when paired with the proposed commercial readiness requirements and financial commitments (for deposits and site control).¹⁴¹¹ Shell suggests that the Commission adopt withdrawal penalties modeled on MISO's framework, which encourages interconnection customers to withdraw from the interconnection queue with refunded deposits rather than penalizing interconnection customers for making justifiable decisions. Shell contends that there should only be a large penalty for late-stage withdrawals.¹⁴¹² Shell contends that, otherwise, the Commission is sending the wrong signal and driving out competition without linking the underlying issue of unexpected network upgrade costs that typically come from affected system studies that are provided very late in the study process.

734. Some commenters contend that increasing the amount of money at stake for an interconnection customer without providing off-ramps from the interconnection process at reasonable decision points where previously unavailable information is supplied does not necessarily incentivize interconnection customers to exit the interconnection queue.¹⁴¹³ CREA and NewSun suggest that the proposed withdrawal penalties may incentivize an interconnection customer to remain in the interconnection queue waiting for other interconnection customers to withdraw, and the penalty those interconnection customers pay will eventually be distributed to the remaining interconnection customers in the cluster, or interconnection

customers may elect to remain in the interconnection queue in the hopes that others in the cluster withdraw to the point where the cost of network upgrades become more palatable.¹⁴¹⁴

(c) Comments on Specific Proposal

(1) Withdrawal Penalty Amounts

735. Several commenters oppose the proposed withdrawal penalty amounts.¹⁴¹⁵ AEE argues that the Commission's proposed withdrawal penalty amounts are overly punitive, especially for those interconnection customers that submit a deposit in lieu of demonstrating commercial readiness, which many interconnection customers will be forced to do under the Commission's proposed commercial readiness requirements.¹⁴¹⁶ AEE and Clean Energy Associations assert that the Commission's proposed withdrawal penalty amounts also appear arbitrary, with no basis in the costs of conducting studies or other relevant factors.¹⁴¹⁷ AEE argues that the Commission should reduce these amounts and tie them more closely to its objectives and to the study costs that transmission providers are expected to incur, which it asserts will avoid turning the penalties into a punitive measure that provides a profit opportunity for transmission providers.¹⁴¹⁸ AEE contends that the withdrawal penalty frameworks and time frames should be designed to discipline the decisions of interconnection customers rather than being punitive. Google does not support the proposal to impose higher withdrawal penalties on interconnection customers that submit a deposit in lieu of demonstrating commercial readiness.¹⁴¹⁹

736. Interwest argues that some of the proposed withdrawal penalties—those in the range of five to nine times the study costs—far exceed reasonableness, especially in the face of the potential for a myriad of ways in which an LSE can bias the bid review process and slow the cluster study process under existing rules without stringent oversight.¹⁴²⁰ Interwest argues that the NOPR does not sufficiently acknowledge the need to reform study processes to prevent inaccurate studies, which create widely different results from one study to

another.¹⁴²¹ Interwest suggests that these inaccurate studies, along with delayed affected system study results, lead to withdrawals, strengthening the case that withdrawal penalties should not increase dramatically toward the end of the study process and around execution of an LGIA without appropriate recourse for the interconnection customer. Interwest argues that a 25% increase in study costs from one study to another should be a sufficient basis for withdrawal without incurring withdrawal penalties, as part of a tariff with incentives for transmission providers to provide accurate estimates of network upgrade costs. Interwest argues that, for these reasons, withdrawal penalties are redundant and punitive when combined with increasingly large at-risk deposits as proof of commercial readiness.

737. SDG&E asserts that a withdrawal penalty of nine times the study deposit amount will provide a disincentive for late-stage withdrawals in certain cases, but that a penalty alone should not be relied on in lieu of other financial security mechanisms.¹⁴²² SDG&E maintains that a more reasonable amount for a withdrawal penalty may be the greater of nine times the study deposit and a CAISO-style financial security posting that is based on factors such as network upgrade and interconnection facilities costs.

738. Some commenters argue that the Commission should adopt the RTO/ISO model of financial readiness milestones that are tied to network upgrade costs.¹⁴²³ Clean Energy Associations submit that tying deposits and penalties to network upgrade costs allocated to the interconnection customer is superior because network upgrade costs are a better indicator of the harm that may be caused by a withdrawal than generating facility size.¹⁴²⁴

739. AES contends that tying the withdrawal penalty to the percentage of network upgrade deposit at risk provides a better incentive for interconnection customers with proposed generating facilities with high network upgrade costs to withdraw earlier in the interconnection process, rather than risk losing their posted security.¹⁴²⁵ Invenergy suggests that any withdrawal penalty imposed after LGIA execution should be tied to assigned

¹⁴⁰⁸ rPlus Initial Comments at 5.

¹⁴⁰⁹ *Id.*; Hydropower Commenters Initial Comments at 26.

¹⁴¹⁰ rPlus Initial Comments at 5.

¹⁴¹¹ Shell Initial Comments at 9, 24; Shell Reply Comments at 26.

¹⁴¹² Shell Initial Comments at 25.

¹⁴¹³ CREA and NewSun Initial Comments at 76; SEIA Initial Comments at 25–27; SEIA Reply Comments at 10–11.

¹⁴¹⁴ CREA and NewSun Initial Comments at 76.

¹⁴¹⁵ AEE Initial Comments at 19; CREA and NewSun Initial Comments at 75; Interwest Initial Comments at 22.

¹⁴¹⁶ AEE Initial Comments at 19.

¹⁴¹⁷ *Id.*; Clean Energy Associations Initial Comments at 41.

¹⁴¹⁸ AEE Initial Comments at 19–20.

¹⁴¹⁹ Google Initial Comments at 21.

¹⁴²⁰ Interwest Initial Comments at 22.

¹⁴²¹ Interwest Reply Comments at 13–14.

¹⁴²² SDG&E Initial Comments at 6.

¹⁴²³ ACE–NY Initial Comments at 8; AES Initial Comments at 19; AES Reply Comments at 3–6; Enel Initial Comments at 4; Invenergy Initial Comments at 24; Pine Gate Initial Comments at 34.

¹⁴²⁴ Clean Energy Associations Initial Comments at 41.

¹⁴²⁵ AES Initial Comments at 19.

network upgrade costs and should be subject to a \$2 million cap to avoid unnecessarily punitive penalties, as the LGIA may impose additional financial obligations for construction of the assigned upgrades.¹⁴²⁶ CAISO argues that network upgrade-based financial requirements are far more effective than the withdrawal penalties proposed in the NOPR because network upgrade-based requirements are tied to the project's actual interconnection costs, which correlate with its competitiveness to obtain a power purchase agreement and therefore its likelihood to remain in the queue.¹⁴²⁷

740. NYISO argues that the withdrawal penalty amounts proposed in the NOPR, which are tied to study costs, are unlikely to provide sufficient capital to cover the costs of constructing the network upgrades of withdrawn generating facilities on which other interconnection customers are relying.¹⁴²⁸ SoCal Edison suggests that, instead of using study costs as the basis for the withdrawal penalty amount, which would not be known until completion of the interconnection studies, the Commission should require that withdrawal penalties be calculated based on increasing multiples of the study deposits, which are known and serve as a proxy of the study costs.¹⁴²⁹

(2) Proposed Withdrawal Penalty Exemptions

741. Some commenters support the NOPR proposal to exempt interconnection customers from withdrawal penalties in certain instances, stating that the proposal achieves a workable balance between the needs of interconnection customers and transmission providers.¹⁴³⁰ For example, MISO agrees that interconnection requests that experience significant cost increases should be able to withdraw without a penalty.¹⁴³¹ Omaha Public Power states that the four scenarios proposed in the NOPR for interconnection customers to qualify for exemptions to withdrawal penalties seem to properly acknowledge instances where other interconnection customers are not negatively impacted by a withdrawal, or when it is no longer economically viable for the interconnection customer to move forward with the generating facility due

to drastically increased network upgrade costs.¹⁴³²

742. On the other hand, SEIA contends that, although the NOPR proposal exempts interconnection customers from withdrawal penalties if there is no impact to other generating facilities in the same cluster, withdrawals almost always impact other generating facilities in the cluster, such that withdrawal penalties are likely unavoidable.¹⁴³³ Pine Gate states that the proposed list of withdrawal penalty exemptions is not reflective of an appropriate balance between interconnection customer and transmission provider accountability because it increases the burden on interconnection customers without any increase to accountability for transmission providers.¹⁴³⁴ Pattern Energy disagrees with a standard tied to a potential delay of a lower-queued interconnection customer, given the Commission's proposed transition to a cluster study approach.¹⁴³⁵ Pattern Energy contends that the only impact that should be relevant to granting an exemption is a financial impact.

743. NRECA supports including the 100% cost increase exemption in the final rule, which would apply where there is a large late-stage cost increase, making the interconnection request's success economically challenging.¹⁴³⁶ Pattern Energy, on the other hand, claims that the Commission's proposal incentivizes transmission providers to overestimate costs in cluster studies for fear that there will be later, unexpected cost increases in the facilities study, which Pattern Energy argues presents a barrier to entry.¹⁴³⁷ Pine Gate also claims that requiring a 100% increase in costs between the facilities study phase and the previous cluster study phase in order to allow for penalty-free withdrawal exposes interconnection customers to withdrawal penalties in instances where costs increase dramatically due to no fault of the interconnection customer.¹⁴³⁸ Several commenters recommend that the Commission ensure that any penalties for withdrawal account for unanticipated cost increases.¹⁴³⁹

¹⁴³² Omaha Public Power Initial Comments at 9–10.

¹⁴³³ SEIA Initial Comments at 26.

¹⁴³⁴ Pine Gate Initial Comments at 34.

¹⁴³⁵ Pattern Energy Initial Comments at 33.

¹⁴³⁶ NRECA Initial Comments at 30.

¹⁴³⁷ Pattern Energy Initial Comments at 34.

¹⁴³⁸ Pine Gate Initial Comments at 35.

¹⁴³⁹ Clean Energy Associations Initial Comments at 40 (arguing that the Commission should allow interconnection customers to withdraw without penalty if costs in a restudy increase by over 25% relative to prior study results); CREA and NewSun

744. Xcel recommends that the Commission allow an interconnection request, submitted by a resource planning entity as agent for an interconnection customer, that is withdrawn by the resource planning entity because it was not picked in a resource solicitation process, to be exempt from withdrawal penalties, as the withdrawal was due to no fault of the interconnection customer.¹⁴⁴⁰ Xcel states that, other than this exemption, the Commission should not expand the exemptions from withdrawal penalties beyond those proposed in the NOPR.

745. NextEra and Northwest and Intermountain argue that interconnection customers should be exempt from withdrawal penalties if the transmission provider's or affected system operator's studies or posted information are untimely.¹⁴⁴¹

746. NextEra contends that the NOPR does not explain why there are different withdrawal penalty levels for interconnection customers demonstrating commercial readiness via the proposed non-financial demonstration options and those submitting a deposit in lieu of demonstrating commercial readiness.¹⁴⁴²

747. Several commenters argue that the proposed exemptions require

Initial Comments at 78 (suggesting that withdrawal penalties should not apply anytime an interconnection customer withdraws after receipt of a system impact study, facilities study, or restudy that contains a 25% cost increase over the prior study or a 50% cumulative increase over the initial study); ENGIE Initial Comments at 7; Invenergy Initial Comments at 25 (arguing that the Commission should allow interconnection customers to withdraw without penalty if affected system study results cause an interconnection customer's costs to increase by more than 25% compared to costs allocated to it by the host transmission provider in a prior study); Longroad Energy Initial Comments at 18 (recommending that the Commission reduce the penalty exemption threshold to a cost-increase of only 20% from the initial cluster study to the restudy and a cost increase of only 10% from the final restudy to the individual cluster facilities study); NextEra Initial Comments at 26 (suggesting that a more reasonable withdrawal penalty exemption threshold for cost increases for late-stage withdrawals would be in the range of 30%); Ørsted Initial Comments at 15 (arguing that the Commission should allow interconnection customers to withdraw without penalty if costs in a restudy increase by over 25% relative to prior study results); Pattern Energy Initial Comments at 33 (suggesting that, if costs increase by 15% from the first to the second study report, but a restudy results in an additional 20% increase compared to the second study report, then the total increase from the first study report to the restudy report would be 35%, and this total additive percentage increase should be deemed sufficient to constitute an excusable withdrawal event); Pine Gate Initial Comments at 35.

¹⁴⁴⁰ Xcel Initial Comments at 35.

¹⁴⁴¹ NextEra Initial Comments at 26; Northwest and Intermountain Initial Comments at 13.

¹⁴⁴² NextEra Initial Comments at 27.

¹⁴²⁶ Invenergy Initial Comments at 24.

¹⁴²⁷ CAISO Initial Comments at 23.

¹⁴²⁸ NYISO Initial Comments at 25.

¹⁴²⁹ SoCal Edison Initial Comments at 10.

¹⁴³⁰ MISO Initial Comments at 68; Omaha Public Power Initial Comments at 9–10.

¹⁴³¹ MISO Initial Comments at 68.

clarification.¹⁴⁴³ For one, CAISO claims that the exemption criteria, as written in the NOPR, are not workable.¹⁴⁴⁴ CAISO argues that the Commission's description of the exemptions is problematic due to the use of "or," which suggests meeting any criterion would relieve the interconnection customer of withdrawal penalties. CAISO posits that, under the Commission's criteria, a withdrawal could not affect the timing of other generating facilities but still increase their costs; however, the interconnection customer would meet the first exemption and not be subject to withdrawal penalties. CAISO argues that withdrawals would never delay the timing of generating facilities in the same cluster. CAISO states that a cluster's upgrades are a package, and the construction schedule would not change simply because one interconnection customer that is sharing upgrades withdraws. CAISO suggests that the Commission clarify that, to be exempt from withdrawal penalties, each interconnection customer must meet (1) both criterion one and two, and (2) criterion three or four.

748. Invenery proposes that the list of exemptions to withdrawal penalties be revised to include: (1) the withdrawal does not directly cause material delays in the timing of other interconnection requests within the same cluster, as determined at the time of withdrawal by the transmission provider; or (2) the withdrawal does not directly cause a material increase in the costs assigned to other interconnection requests within the same cluster, as determined at the time of withdrawal by the transmission provider.

749. Omaha Public Power contends that the exemption to withdrawal penalties cannot be applied to the interconnection process as it currently functions for those transmission providers that allow for overlapping studies (e.g., when a cluster study is being studied prior to the conclusion of the preceding cluster study).¹⁴⁴⁵ Omaha Public Power claims that overlapping studies lead to baseline costs in the subsequent cluster studies that are inherently wrong and do not factor in the previously existing unfinished cluster studies. Omaha Public Power claims that this inaccurate starting point for costs is likely higher than what is accurate, and any subsequent restudy

will likely lead to identification of network upgrades that fall below the exemption threshold, subjecting interconnection customers to wrongful withdrawal penalties. Omaha Public Power argues that, until an interconnection process can be conducted without overlapping studies, these exemptions will be woefully misapplied. Southern raises similar concerns.¹⁴⁴⁶

750. Yet other commenters believe that the NOPR proposal is too lenient.¹⁴⁴⁷ NRECA suggests that transmission providers should be afforded flexibility whether to adopt exemptions to withdrawal penalties related to: (1) not delaying the timing of other interconnection requests in the same cluster; (2) not increasing the cost of network upgrades for other interconnection requests in the same cluster; and (3) withdrawing if the most recent cluster study report shows a cost increase of at least 25% compared to the previous cluster study report.¹⁴⁴⁸ NRECA asserts that these exemptions may or may not be needed for a particular transmission provider and potentially may allow withdrawals that trigger time-consuming restudy processes. SDG&E generally opposes exemptions to withdrawal penalties and claims that material modification provisions in the *pro forma* LGIP already address impacts to other interconnection customers.¹⁴⁴⁹ SDG&E argues that, regardless of the impact to other interconnection customers, there are still costs and resources committed between all entities to study and assess proposed generating facilities. SDG&E believes that withdrawal penalties should apply for all generating facilities, and any exemptions should be sparing.

(3) How To Determine if a Withdrawal Has Delayed or Increased the Cost of Network Upgrades for Other Generating Facilities in the Same Cluster

751. Some commenters argue that it would be difficult to define the circumstances under which a withdrawal is deemed to have delayed the timing or increased the cost of network upgrades for other interconnection requests in the same cluster.¹⁴⁵⁰ APS and Bonneville argue that attempting to do so would create an undue burden on transmission providers, and that the withdrawal of an

interconnection request could have an impact on generating facilities in a subsequent cluster.¹⁴⁵¹ NextEra suggests that one test to determine whether a withdrawal delays other interconnection requests could be whether the withdrawal delays the planned in-service date of other interconnection requests in the same cluster.¹⁴⁵² However, NextEra acknowledges that even this assessment could be difficult to calculate, as delays could not manifest themselves for months or years, other factors could cause delays, and interconnection customers could seek to delay their generating facilities for commercial reasons. Pattern Energy asserts that the Commission must clearly define the standard for timing delays and increasing the cost of network upgrades for other interconnection customers.¹⁴⁵³

752. Bonneville suggests that, similar to the method used to assess a material modification under the *pro forma* LGIP and *pro forma* SGIP, the Commission could provide a non-exhaustive list of examples that would be deemed as delaying the timing or increasing the costs of network upgrades.¹⁴⁵⁴ Bonneville suggests that transmission providers could be given discretion to determine whether other withdrawal situations that are not listed should fall under this category by considering whether the withdrawal has delayed the timing or increased the cost of network upgrades for other interconnection requests in a cluster.

753. Invenery argues that transmission providers should not be permitted to simply assume that withdrawals cause some harm to other interconnection requests and that there should be a requirement for transmission providers to perform an analysis to determine whether a withdrawal results in material harm to other interconnection requests, which interconnection customers could review.¹⁴⁵⁵ Invenery states that the analysis of whether a withdrawal causes a cost increase or delays the timing for other interconnection requests should be performed at each phase of the study process.

754. Invenery requests that the Commission clarify that a withdrawal will not delay the timing of another interconnection request or increase its network upgrade costs if the withdrawal simply requires the transmission

¹⁴⁴³ CAISO Initial Comments at 21–22; Environmental Defense Fund Initial Comments at 4–5; EEI Initial Comments at 8; EEI Reply Comments at 6–7; Eversource Initial Comments at 19; Shell Reply Comments at 27.

¹⁴⁴⁴ CAISO Initial Comments at 21–22.

¹⁴⁴⁵ Omaha Public Power Initial Comments at 10.

¹⁴⁴⁶ Southern Initial Comments at 21–22.

¹⁴⁴⁷ NRECA Initial Comments at 30; SDG&E Initial Comments at 6–7.

¹⁴⁴⁸ NRECA Initial Comments at 30.

¹⁴⁴⁹ SDG&E Initial Comments at 6–7.

¹⁴⁵⁰ APS Initial Comments at 16–17; Bonneville Initial Comments at 12; MISO Initial Comments at 67.

¹⁴⁵¹ APS Initial Comments at 16–17; Bonneville Initial Comments at 12.

¹⁴⁵² NextEra Initial Comments at 26.

¹⁴⁵³ Pattern Energy Initial Comments at 33.

¹⁴⁵⁴ Bonneville Initial Comments at 12.

¹⁴⁵⁵ Invenery Initial Comments at 26–27.

provider to account for the withdrawal. Invenenergy requests that the Commission clarify that any delay or cost increase analysis must be based on a reasonable analysis and show a direct relationship between the withdrawal and the asserted impact on another interconnection request.

755. MISO encourages the Commission to impose the withdrawal penalty whenever an interconnection request withdraws from the interconnection queue.¹⁴⁵⁶ MISO argues that even if after restudy it turns out that the withdrawal of an interconnection request did not actually increase network upgrade costs to other interconnection customers in the cluster, the withdrawal still negatively impacts the interconnection queue by increasing uncertainty for other interconnection customers, prompting further withdrawals and adding administrative cost and burden that impede efficient interconnection queue processing. Pattern Energy likewise argues that the withdrawal of any interconnection request from the interconnection queue results in some form of delay, such as the time taken by a transmission provider to perform a review of the potential impacts of the withdrawal, which could be interpreted as causing a delay because the withdrawal impact analysis could delay the receipt of final study results and agreements.¹⁴⁵⁷ PJM makes similar arguments.¹⁴⁵⁸

756. Xcel contends that, if a withdrawal results in a restudy of a cluster or subsequent clusters, that restudy will delay the receipt of study results, LGIA execution, and the construction of required network upgrades.¹⁴⁵⁹ Therefore, Xcel argues that any withdrawal that results in a restudy should not be exempt from a withdrawal penalty unless the commercial operation dates of other impacted interconnection requests in the same or subsequent cluster are not impacted. Xcel asserts that delaying LGIA execution may negatively impact off-take agreements and should also be considered harm to equally or lower-queued interconnection customers. Xcel notes that harm is not limited to the reallocation of interconnection costs to equally or lower-queued interconnection requests. Xcel contends that delays, resulting in clogged interconnection queues, can impact resource decisions and thus harm interconnection requests not yet in the

interconnection queue. Xcel argues that, if the withdrawal causes restudy, but the restudy does not impact the timing discussed above, then the restudy results should be used to determine the impact on costs allocated to equally or lower-queued interconnection requests.

757. Xcel notes that it may be difficult to determine if a single withdrawal would have caused harm when multiple interconnection requests are withdrawn in the same time frame.¹⁴⁶⁰ Xcel generally supports penalizing withdrawals if they have a combined impact, as it would be difficult, if not impossible and time consuming, to determine each individual withdrawal's impact. According to Xcel, if the withdrawal penalty was determined on an individual basis, some interconnection customers may wait for others to withdraw, then argue that their secondary withdrawals did not have an impact because all delays and cost impacts were caused by the first withdrawal.

758. Indicated PJM TOs state that a withdrawal can impose costs on other interconnection customers even if it does not delay the timing of other proposed generating facilities. Indicated PJM TOs argue that if withdrawals impose more network upgrade costs on other interconnection customers, it would be unfair to excuse withdrawing interconnection customers just because the transmission provider can keep to its original timelines.¹⁴⁶¹ Indicated PJM TOs further claim that, particularly in a large RTO/ISO, it is not clear how the transmission provider would determine that a particular withdrawal did or did not delay the processing of other interconnection requests. Indicated PJM TOs argue that this criterion for being excused from penalties or forfeitures should be eliminated.

(4) Withdrawal Penalty Collection and Distribution

759. APS seeks clarification on the mechanism the Commission proposes for transmission providers to collect withdrawal penalties from interconnection customers.¹⁴⁶² APS and MISO express concerns that, under the withdrawal penalty collection proposal, a transmission provider would have to act as a collection agency, which is likely unworkable.¹⁴⁶³ EEI suggests that the Commission institute financial assurance requirements for interconnection customers to reduce the

likelihood that penalized entities are unable to pay the penalties they are assessed.¹⁴⁶⁴ Eversource asserts that the Commission should set clear rules that include policies governing how RTOs/ISOs will collect penalties and address potential scenarios in which interconnection customers refuse to pay or declare bankruptcy.¹⁴⁶⁵ MISO claims that interconnection customers can structure the businesses behind the interconnection request in such a way so that the legal entity would be very difficult to collect from.¹⁴⁶⁶

760. Some commenters do not support the Commission's proposal to require withdrawal penalty revenues to be used to fund studies conducted under the cluster study process.¹⁴⁶⁷ CAISO states that transmission providers already have provisions specifying where non-refundable funds go, and using them for interconnection studies would require careful accounting without relieving study burdens.¹⁴⁶⁸ NextEra and PJM suggest that transmission providers should be allowed to use forfeited funds to help pay for increased network upgrade costs incurred by other interconnection customers due to a withdrawal.¹⁴⁶⁹ Invenenergy asserts that excess funds should be applied to offset network upgrade costs assigned through that cluster study process in proportion to any upgrade costs that were directly shifted from a withdrawn interconnection customer.¹⁴⁷⁰ RWE Renewables assert that withdrawal penalties should be used to create meaningful decision points for interconnection customers, to discern whether they are willing to commit resources to each particular generating facility.¹⁴⁷¹ RWE Renewables and Interwest contend that withdrawal penalties should be allocated between and among different clusters for transmission expansion, so that they benefit load and interconnection customers, rather than restudies, which they believe will not be needed as frequently in the proposed cluster study process.¹⁴⁷²

761. CAISO opposes the NOPR proposal to cap withdrawal

¹⁴⁶⁴ EEI Initial Comments at 8.

¹⁴⁶⁵ Eversource Initial Comments at 19.

¹⁴⁶⁶ MISO Initial Comments at 69.

¹⁴⁶⁷ CAISO Initial Comments at 22; Interwest Reply Comments at 14; NextEra Initial Comments at 27–28; PJM Initial Comments at 39; RWE Renewables Initial Comments at 2.

¹⁴⁶⁸ CAISO Initial Comments at 22.

¹⁴⁶⁹ NextEra Initial Comments at 27–28; PJM Initial Comments at 39.

¹⁴⁷⁰ Invenenergy Initial Comments at 27–28.

¹⁴⁷¹ RWE Renewables Initial Comments at 2.

¹⁴⁷² *Id.*; Interwest Reply Comments at 14.

¹⁴⁵⁶ MISO Initial Comments at 67–68.

¹⁴⁵⁷ Pattern Energy Initial Comments at 33.

¹⁴⁵⁸ PJM Initial Comments at 41.

¹⁴⁵⁹ Xcel Initial Comments at 33–34.

¹⁴⁶⁰ *Id.* at 34.

¹⁴⁶¹ Indicated PJM TOs Reply Comments at 35–36.

¹⁴⁶² APS Initial Comments at 16.

¹⁴⁶³ *Id.*; MISO Initial Comments at 69.

penalties.¹⁴⁷³ CAISO contends that larger projects create the most churn in queue, and projects that cannot demonstrate commercial readiness should be the most likely to withdraw. CAISO argues that withdrawal penalty caps will disproportionately affect smaller and more competitive interconnection requests more than larger and less competitive interconnection requests and suggests that the Commission remove the withdrawal penalty caps so the withdrawal penalties affect interconnection customers equally.

762. Pattern Energy suggests that, in addition to the Commission's proposed use of withdrawal penalties to defray future study costs, the Commission should designate a portion of any withdrawal penalties to be used for recruitment, retention, and performance bonuses for engineers, administrators, and/or consultants, who can then be deployed to help alleviate queue backlogs.¹⁴⁷⁴

763. Other commenters request clarification of the proposal for distribution of withdrawal penalty funds. AES and EDF Renewables argue that it is critical that the Commission clarify that transmission providers do not receive any benefits from withdrawal fee and non-refundable deposit proceeds; otherwise, they argue, transmission providers would be financially incentivized to force interconnection customers to withdraw.¹⁴⁷⁵ Several commenters request clarification of the Commission's intent for excess money that remains after funding any appropriate restudies for the current cluster, and some of these commenters have suggested uses for this excess.¹⁴⁷⁶ AES asserts that any withdrawal fees and non-refundable deposits collected should go towards improving the interconnection process.¹⁴⁷⁷ EDF Renewables suggests that any remainder should be refunded to the interconnection customer.¹⁴⁷⁸ On the other hand, Southern opposes refunding excess penalty amounts to the interconnection customer and proposes that any remaining amounts be applied to network upgrades needed in the same cluster or treated as a revenue credit

against the revenue requirement in the determination of transmission rates.¹⁴⁷⁹ APS suggests that the remainder act as a credit towards the transmission provider's transmission rates, as this method would guarantee that all transmission customers benefit from the penalties.¹⁴⁸⁰

764. Shell claims that withdrawal penalties will accumulate faster than they may be spent by the relevant transmission provider.¹⁴⁸¹ Therefore, Shell asserts that the Commission must address the following: (1) the system of independent checks and balances that transmission providers will employ to ensure that only specific individuals have access to the withdrawal penalty account; (2) the average cost of a cluster study from start to finish so that, if a withdrawal penalty is forfeited, it can be determined how many future cluster studies the transmission provider could expect to perform with forfeited funds; (3) if funds from a withdrawal penalty are used to pay for future study costs, whether future interconnection customers must still post a study deposit; and (4) if a withdrawal penalty account balance accumulates faster than funds can be spent, what independent system of checks and balances transmission providers will use to ensure that their staff and/or consultants do not overcharge for their services related to studies.

(d) Requests for Flexibility, Clarification, or Technical Conference

765. Some commenters would prefer that the Commission allow for transmission providers to craft and use their own withdrawal penalty structure instead of having a standardized approach for all transmission providers.¹⁴⁸² AEP supports the adoption of withdrawal penalties with reasonable penalty-free off ramps but asserts that this is an area in which flexibility should be permitted, particularly where alternative approaches already have been through robust stakeholder processes.¹⁴⁸³ NYTOs suggest that there should be

flexibility regarding the amount of the withdrawal penalties, which NYTOs argue should be tied to each transmission provider's and associated transmission owners' interconnection processes.¹⁴⁸⁴ Pacific Northwest Utilities argue that the Commission should allow flexibility as to the timing of the penalties.¹⁴⁸⁵ Pacific Northwest Utilities also request flexibility to define their own requirements for withdrawal penalties to limit interconnection queue overcrowding.¹⁴⁸⁶ Interwest contends that the Commission should not attempt to predetermine the amount of withdrawal penalties in a rulemaking proceeding with limited evidence; rather, the Commission should require that transmission providers develop appropriate mechanisms and determine appropriate monetary amounts to substantially reduce the risk that the efforts of interconnection customers are not thwarted or delayed by others' overly speculative interconnection requests.¹⁴⁸⁷

766. Some commenters seek general clarification on several of the withdrawal penalty proposals. For example, NV Energy requests clarification on whether, if a withdrawal penalty is deemed appropriate at the time an interconnection customer withdraws its interconnection request, that the interconnection customer is charged both the actual costs incurred to perform studies and the applicable withdrawal penalty (*i.e.*, two separate charges).¹⁴⁸⁸

767. NV Energy seeks clarification, if an interconnection customer's generating facility does not achieve commercial operation, whether the nine times the actual study cost deposit would be applied toward its withdrawal penalties, and whether the interconnection customer would be charged nine times the actual study costs.

768. Southern suggests that, in the NOPR's proposed definition of "withdrawal penalty" and in the exemptions to that penalty, the phrase "the commercial operation date in the interconnection request" should replace the phrase "commercial operation," such that the definition would read "the penalty assessed by Transmission Provider to an Interconnection Customer that chooses to withdraw from the queue or does not otherwise reach the Commercial Operation Date in the

¹⁴⁷³ CAISO Initial Comments at 24.

¹⁴⁷⁴ Pattern Energy Initial Comments at 34.

¹⁴⁷⁵ AES Initial Comments at 19–20; EDF Renewables Initial Comments at 7.

¹⁴⁷⁶ AES Initial Comments at 19–20; APS Initial Comments at 16; EDF Renewables Initial Comments at 7; Invenenergy Initial Comments at 27–28; ISO–NE Initial Comments at 33; Southern Initial Comments at 22.

¹⁴⁷⁷ AES Initial Comments at 19–20.

¹⁴⁷⁸ EDF Renewables Initial Comments at 7.

¹⁴⁷⁹ Southern Initial Comments at 22.

¹⁴⁸⁰ APS Initial Comments at 16.

¹⁴⁸¹ Shell Initial Comments at 18–19.

¹⁴⁸² AEP Initial Comments at 24; Avangrid Initial Comments at 9; Avangrid Reply Comments at 4; CREA and NewSun Initial Comments at 77–78; Dominion Initial Comments at 34; Indicated PJM TOs Initial Comments at 33; NYISO Initial Comments at 24; NYTOs Initial Comments at 21; Omaha Public Power Initial Comments at 11; OMS Initial Comments at 13; Pacific Northwest Utilities Initial Comments at n.6; PJM Initial Comments at 41; SDG&E Initial Comments at 6; SEIA Initial Comments at 27; Southern Initial Comments at 20; Shell Initial Comments at 24–25; SPP Initial Comments at 11.

¹⁴⁸³ AEP Initial Comments at 23–24.

¹⁴⁸⁴ NYTOs Initial Comments at 21.

¹⁴⁸⁵ Pacific Northwest Utilities Initial Comments at 2, 4–5, & n.6.

¹⁴⁸⁶ *Id.* at 2.

¹⁴⁸⁷ Interwest Reply Comments at 13.

¹⁴⁸⁸ NV Energy Initial Comments at 6–7.

Interconnection Request.”¹⁴⁸⁹ Southern argues that to be consistent and clear with *pro forma* LGIP section 3.7.1.1, the definition of withdrawal penalty must be revised to reflect that the withdrawal penalty is applicable if the interconnection customer is deemed withdrawn.

769. Invenergy requests that the Commission clarify that, to the extent withdrawal penalty amounts are used to fund some portion of an interconnection study, that it does not reduce the transmission provider’s potential exposure for penalties in the event that study is not timely completed.¹⁴⁹⁰

770. Invenergy requests that the Commission clarify that, to the extent any post-LGIA withdrawal penalty is imposed, it is offset by the deposit posted at LGIA execution and not additional to that deposit, which would be unreasonable and unnecessarily punitive.¹⁴⁹¹

771. MISO encourages the Commission to bolster the definitions of “commercial readiness deposit,” “study deposit,” and “withdrawal penalty” to clearly enable the transmission provider to apply those deposits toward the withdrawal penalty.¹⁴⁹²

772. CAISO seeks clarification that the NOPR’s proposed withdrawal penalties would not displace transmission providers’ other existing procedures and penalties that incentivize interconnection customers to withdraw earlier rather than later and cites its own requirement that interconnection customers post financial security based on their allocated network upgrade costs.¹⁴⁹³

773. NV Energy requests that the Commission clarify what happens if only a portion of an interconnection request is brought to commercial operation, as it relates to withdrawal penalties and the construction of network upgrades.¹⁴⁹⁴

774. Tri-State requests clarification on the meaning of “previous withdrawal penalty revenue received” in section 3.7.1.1 of the *pro forma* LGIP¹⁴⁹⁵ and requests clarification on whether section 3.7.1.2 of the *pro forma* LGIP includes the paragraph after (c) regarding commercial operation.

(e) Alternatives and Miscellaneous

775. Some commenters provide comments in response to the

Commission’s query on whether a correlation exists between the size of a withdrawing proposed generating facility and the relative level of harm, in terms of delays and increased cost, to other interconnection customers as a result of the withdrawal.¹⁴⁹⁶ Some commenters indicate that there can be a correlation between the size of a withdrawing proposed generating facility and the relative level of harm caused by the withdrawal and encourage withdrawal penalties that increase with the proposed generating facility size.¹⁴⁹⁷ For example, Idaho Power contends that large generating facilities typically trigger more expensive network upgrades which, when withdrawn, are more likely to trigger restudies.¹⁴⁹⁸ Other commenters do not support withdrawal penalties that increase based on the size of a generating facility.¹⁴⁹⁹ APS argues that the determinant of “relative level of harm” is entirely subjective to the transmission provider and could lead to litigation.¹⁵⁰⁰ APS argues that the location of the interconnection request is more closely correlated with the effect on other interconnection customers than is the size of a proposed generating facility. Xcel states that, although larger generating facilities tend to have a larger impact, if the total impact to other projects is calculated as a combined impact, then the size of the project should not impact the withdrawal penalty calculation.¹⁵⁰¹

776. Ørsted expresses concern that relatively small generating facilities (by MW) that fail to demonstrate commercial readiness and are forced to withdraw from the interconnection queue pose significant threats to the efficient management of the cluster study process and recommends that withdrawal penalties be correlated to an interconnection customer’s commercial readiness.¹⁵⁰²

777. AEP supports the idea of off-ramp opportunities at specific times in the cluster study process rather than having to analyze individual withdrawal impacts throughout a cluster study process.¹⁵⁰³ AEP contends that such an approach should limit restudies and minimize delays to

remaining interconnection customers. Similarly, PJM asserts that only allowing withdrawals during certain decision points ensures that studies start and finish at the same time and that the cluster status is maintained during the duration of the study.¹⁵⁰⁴ According to PJM, allowing withdrawals at any point in the study process, as proposed in the NOPR, even with relevant penalties assessed, will cause cascading restudies and negative impacts on other interconnection customers in a cluster.

778. SPP states that, under its current LGIP, interconnection customers provide progressively increasing financial security deposits at each stage of the study process, and the amounts of the financial security deposits required to enter into later stages of the study process are based on the amount of network upgrade costs assigned in the previous stage, which it asserts is better related to the risk and harm of a withdrawal than the NOPR proposal.¹⁵⁰⁵

779. Rather than being assessed withdrawal penalties, CREA and NewSun assert that interconnection customers should be refunded any unused study deposits.¹⁵⁰⁶ CREA and NewSun argue that penalties should apply only to deter wrongful conduct that the interconnection customer can avoid committing and should not be used as an arbitrary barrier to market entry.¹⁵⁰⁷

iii. Commission Determination

780. We adopt, with modifications, the NOPR proposal to impose withdrawal penalties on interconnection customers for withdrawing their interconnection requests from the interconnection queue, absent qualification for one of the limited exemptions, as discussed below. We add the defined term “withdrawal penalty,” as modified below, to the *pro forma* LGIP; revise section 3.7 of the *pro forma* LGIP; and add sections 3.7.1, 3.7.1.1, and 3.7.1.2 to the *pro forma* LGIP, with the modifications to the NOPR proposal discussed below. However, we decline to adopt the withdrawal penalty caps proposed in the NOPR.

781. We find that, along with the other reforms adopted in this final rule, adopting a withdrawal penalty framework is needed to remedy the issues regarding speculative interconnection requests, including

¹⁴⁹⁶ NOPR, 179 FERC ¶ 61,194 at P 148.

¹⁴⁹⁷ Avangrid Initial Comments at 20; Clean Energy States Initial Comments at 10; Enel Initial Comments at 35; Idaho Power Initial Comments at 8; PPL Initial Comments at 17.

¹⁴⁹⁸ Idaho Power Initial Comments at 8.

¹⁴⁹⁹ APS Initial Comments at 17; Xcel Initial Comments at 35.

¹⁵⁰⁰ APS Initial Comments at 17.

¹⁵⁰¹ Xcel Initial Comments at 35.

¹⁵⁰² Ørsted Initial Comments at 13.

¹⁵⁰³ AEP Initial Comments at 24.

¹⁵⁰⁴ PJM Initial Comments at 41.

¹⁵⁰⁵ SPP Initial Comments at 11.

¹⁵⁰⁶ CREA and NewSun Initial Comments at 77.

¹⁵⁰⁷ *Id.* at 74–75.

¹⁴⁸⁹ Southern Initial Comments at 21–22.

¹⁴⁹⁰ Invenergy Initial Comments at 28.

¹⁴⁹¹ *Id.* at 24.

¹⁴⁹² MISO Initial Comments at 68–69.

¹⁴⁹³ CAISO Initial Comments at 22–23.

¹⁴⁹⁴ NV Energy Initial Comments at 7.

¹⁴⁹⁵ Tri-State Initial Comments at 28.

study delays from overcrowded interconnection queues and the harms to the function of the interconnection queue that occur when interconnection customers withdraw from the interconnection queue at various stages of the study process. We believe that withdrawal penalties—as adopted herein—will encourage interconnection customers to ensure that their proposed generating facilities are likely commercially viable when they submit their interconnection requests because withdrawal, in most instances, will incur a penalty. We adopt withdrawal penalties that increase in amount as interconnection customers proceed through the interconnection process in order to ensure that interconnection customers continue to evaluate whether their proposed generating facilities are commercially viable, thereby reducing the number of late-stage withdrawals and accompanying restudies.¹⁵⁰⁸ We additionally modify the proposal, as discussed below, regarding how the withdrawal penalty funds are distributed. Specifically, after withdrawal penalty funds are used to fund studies conducted under the cluster study process in the same cluster, as proposed in the NOPR, we modify the proposal to require any remaining withdrawal penalty funds be used to offset net increases to network upgrade cost assignments experienced by interconnection customers from the same cluster that remain in the interconnection queue and are directly affected by the withdrawal of an interconnection request because they previously shared an obligation to fund a network upgrade¹⁵⁰⁹ with the withdrawn interconnection request in the same cluster.¹⁵¹⁰ If the

interconnection customer withdraws before it executes its LGIA or requests to file its LGIA unexecuted and after the interconnection customers in the same cluster that the withdrawn interconnection customer participated in have executed LGIAs, requested their LGIAs to be filed unexecuted, or withdrawn (or have been deemed withdrawn), any remaining withdrawal penalty funds not applied to study costs or net increases in network upgrade cost assignments must be returned to the withdrawn interconnection customer.¹⁵¹¹

782. As explained in section II of this final rule, we find that Commission-jurisdictional rates have been rendered unjust and unreasonable due to speculative interconnection requests that enter and remain in the interconnection queue. By incentivizing interconnection customers to submit interconnection requests only for proposed generating facilities that they believe will be commercially viable and to remain in the interconnection queue only as long as that continues to be true, and by offsetting increases in network upgrade cost responsibility experienced by interconnection customers directly affected by a withdrawal because they share an obligation to fund a network upgrade with the withdrawn interconnection request in the same cluster, we believe that the withdrawal penalty requirements will work in tandem with the other reforms adopted in this final rule to remedy those unjust and unreasonable rates.

783. Specifically, we adopt the NOPR proposal, with modification, to revise the *pro forma* LGIP to require the transmission provider to assess withdrawal penalties, unless an exemption applies at any point in the interconnection process. The withdrawal penalties will be applied to an interconnection customer if: (1) the interconnection customer withdraws its interconnection request at any point in the interconnection process; (2) the interconnection customer's interconnection request has been deemed withdrawn by the transmission provider at any point in the interconnection process; or (3) the interconnection customer's generating facility does not reach commercial operation (such as when an interconnection customer's LGIA is terminated prior to reaching commercial operation). We note that a withdrawal could trigger minor adjustments to the study results of the remaining equally-

or lower-queued interconnection requests that do not represent a significant harm to those remaining in the queue. Therefore, we are modifying the NOPR proposal to require the transmission provider to assess a withdrawal penalty only if the withdrawal has a material impact on the cost or timing of any interconnection requests with an equal or lower queue position. If the transmission provider determines that the impact of the withdrawal is immaterial, the transmission provider must not assess a withdrawal penalty.

784. We adopt this provision in place of the NOPR proposal to exempt interconnection customers from withdrawal penalties if: (1) the withdrawal does not delay the timing of other proposed generating facilities in the same cluster; or (2) the withdrawal does not increase the cost of network upgrades for other proposed generating facilities. We adopt the NOPR proposal that the interconnection customer will also be exempt from paying a withdrawal penalty if (1) the interconnection customer withdraws its interconnection request after receiving the most recent cluster study report and the network upgrade costs assigned to the interconnection customer's request have increased 25% compared to the previous cluster study report, or (2) the interconnection customer withdraws its interconnection request after receiving the individual facilities study report and the network upgrade costs assigned to the interconnection customer's request have increased by more than 100% compared to costs identified in the cluster study report. Accordingly, with these exemptions from the withdrawal penalty, the required withdrawal penalty approach adopted herein does not allow for penalties if the impact of the withdrawal is immaterial to other interconnection customers or if the withdrawal follows significant, unanticipated increases in network upgrade cost estimates.

785. For the withdrawal penalty exemptions, we clarify that the relevant cost increases are network upgrade cost estimate increases, and we adopt revisions to the *pro forma* LGIP accordingly. This clarification is consistent with the Commission's description of these exemptions in the NOPR: "Thus, under this proposal, interconnection customers would be exempt from a withdrawal penalty . . . if the withdrawal follows a significant unanticipated increase in *network upgrade* cost estimates."¹⁵¹²

¹⁵⁰⁸ See RWE Renewables Initial Comments at 2 (asserting that withdrawal penalties should be used to create meaningful decision points for interconnection customers to demonstrate project commitment through the interconnection process).

¹⁵⁰⁹ Sharing an obligation means (1) interconnecting to the same substation network upgrade, or (2) in the case of a system network upgrade, where interconnection customers are identified through the proportional impact method, as contributing to the need for the same system network upgrade.

¹⁵¹⁰ See Invenery Initial Comments at 27–28; NextEra Initial Comments at 27–28; PJM Initial Comments at 39; Southern Initial Comments at 22 (suggesting that transmission providers should be allowed to use forfeited funds to help pay for increased network upgrade costs incurred by other interconnection customers in the same cluster due to a withdrawal). We disagree with RWE Renewables and Interwest that withdrawal penalties should be allocated between and among different clusters because we find that withdrawal penalties should only be allocated to interconnection customers that are directly affected by a withdrawal because they share an obligation to fund a network upgrade. See RWE Renewables

Initial Comments at 2; Interwest Reply Comments at 14.

¹⁵¹¹ See EDF Renewables Initial Comments at 7.

¹⁵¹² NOPR, 179 FERC ¶ 61,194 at P 141 (emphasis added).

786. We disagree with commenters that the thresholds to trigger the exemptions—a 25% increase in estimated network upgrade costs above the cluster study report estimate or a 100% increase in estimated network upgrade costs in the facilities study report—are too high. As an initial matter, the potential interconnection customer will have access to heatmap information, as required in this final rule, that will allow it to evaluate project feasibility without a financial commitment and thereby avoid potential withdrawal penalty risk. As stated by Omaha Public Power and Southern, upon entering the interconnection queue and receiving the estimates provided in the cluster study report, the interconnection customer is aware that the estimates may change. Additionally, we find that the trigger thresholds are set at an amount that provides sufficient room for estimates to change as the cluster evolves while limiting interconnection customer exposure to withdrawal penalties when such estimates change by a significant amount. Moreover, the increasing threshold triggers reflect the fact that estimates should improve in accuracy as interconnection customers move through the interconnection process and should increasingly disincentivize commercially non-viable generating facilities from staying in the interconnection queue. An interconnection customer will know to factor in both the cost estimates and the potential withdrawal penalty but also the exemption trigger thresholds as it proceeds through the interconnection queue.

787. We do not believe that interconnection customers will be subject to “wrongful withdrawal penalties” as suggested by some commenters. In addition, the withdrawal penalty exemptions are designed to allow penalty-free withdrawal if the withdrawal does not materially harm other interconnection customers or if the withdrawal follows a significant unanticipated increase in network upgrade cost estimates. The withdrawal penalty exemptions are not designed to mitigate all business risk associated with interconnecting a new generating facility. The withdrawal penalty structure adopted herein, where the withdrawal penalty at the earlier stages of the interconnection process is generally lower than the withdrawal penalty at later stages also lessens the cost exposure for an interconnection customer that withdraws at an earlier stage, when the impact of the withdrawal is less disruptive to the

administration of the interconnection queue and other interconnection customers. We find that, by increasing the withdrawal penalty amounts as the interconnection customer proceeds through the interconnection queue, interconnection customers will be incentivized to withdraw non-viable interconnection requests earlier in the process, leading to fewer late-stage withdrawals.

788. We also disagree with commenters that request additional exemptions to the withdrawal penalty structure. We believe that the withdrawal penalty exemptions and withdrawal penalty structure, as modified by this final rule, will deter unwarranted assessments of withdrawal penalties.

789. Regarding commenters’ requests for clarification concerning how to determine whether a withdrawal impacts other interconnection requests with the same or lower queue positions for purposes of assessing qualification for an exemption to a withdrawal penalty, we defer to the transmission provider’s discretion because the transmission provider is best suited to determine whether a withdrawal has a material impact on the cost or timing of any interconnection customer with the same or lower queue position.

790. We do not adopt the NOPR proposal regarding withdrawal penalty calculations for interconnection customers that provide demonstrations of commercial readiness because we do not adopt the non-financial commercial readiness demonstration options in this final rule, as discussed above in section III.A.6.c.iii. Instead, we modify the proposed penalty structure to base the withdrawal penalty calculation on an increasing percentage of the cost of the identified network upgrades assigned to the interconnection customer as the interconnection customer moves through the interconnection queue.¹⁵¹³ We also decline to adopt the withdrawal penalty caps proposed in the NOPR. We believe that this structure will provide better financial incentives for interconnection customers to avoid late-stage withdrawals that cause the greatest disruption to interconnection queue processing via restudies and delays because interconnection customers will be subject to higher withdrawal

penalties late in the interconnection process.

791. With regard to the withdrawal penalty calculation structure more specifically, we modify the NOPR proposal and require that, unless an interconnection customer qualifies for one of the stated exemptions discussed above, the transmission provider must assess a withdrawal penalty on an interconnection customer with a proposed generating facility that does not reach commercial operation based either on the actual study costs or on a percentage of the interconnection customer’s assigned network upgrade costs, depending on what phase the interconnection customer withdraws its interconnection request. Thus, the withdrawal penalty for an interconnection customer will be calculated as the greater of the study deposit or: (1) two times the study cost if the interconnection customer withdraws during the cluster study or after receipt of a cluster study report; (2) 5% of the interconnection customer’s identified network upgrade costs if the interconnection customer withdraws during the cluster restudy or after receipt of any applicable restudy reports; (3) 10% of the interconnection customer’s identified network upgrade costs if the interconnection customer withdraws during the facilities study, after receipt of the individual facilities study report, or after receipt of the draft LGIA; or (4) 20% of the interconnection customer’s identified network upgrade costs if, after executing, or requesting to file unexecuted, the LGIA, the interconnection customer’s LGIA is terminated before its generating facility achieves commercial operation. The table below summarizes the withdrawal penalty structure adopted herein.

Phase of withdrawal	Total withdrawal penalty (if greater than study deposit)
Initial Cluster Study ...	2 times study costs.
Cluster Restudy	5% of network upgrade costs.
Facilities Study	10% of network upgrade costs.
After Execution of, or After the Request to File Unexecuted, the LGIA.	20% of network upgrade costs.

792. We find that the withdrawal penalty structure adopted herein, which requires larger withdrawal penalties as the interconnection customer progresses through the interconnection process, combined with the exemptions, strikes the proper balance between enabling interconnection customers that possess

¹⁵¹³ See Invenenergy Initial Comments at 27–28; NextEra Initial Comments at 27–28; PJM Initial Comments at 39; Southern Initial Comments at 22 (suggesting that transmission providers should be allowed to use forfeited funds to help pay for increased network upgrade costs incurred by other interconnection customers in the same cluster due to a withdrawal).

imperfect information when entering into and remaining in the interconnection queue to make withdrawal decisions and deterring speculative interconnection requests from entering into and remaining in the queue when they are unlikely to be completed, to the detriment of other interconnection customers, especially when these interconnection requests are withdrawn at later stages of the interconnection process.

793. We decline to adopt the withdrawal penalty caps proposed in the NOPR because such caps would mute the economic signals that withdrawal penalties are intended to send to interconnection customers in the interconnection queue. The withdrawal penalty structure is meant to incentivize interconnection customers to withdraw from the interconnection queue upon receipt of network upgrade cost assignments that make the interconnection request commercially non-viable. However, withdrawal penalty caps would shield interconnection customers that withdraw due to higher-cost network upgrades from consequences proportional to the impact of that withdrawal, which can drive cascading withdrawals, creating the need for restudies and leading to delays. We accordingly agree with CAISO that the withdrawal penalty caps proposed in the NOPR would disproportionately benefit interconnection requests for larger generating facilities.¹⁵¹⁴ We find that, while withdrawal penalty caps protect interconnection customers that are allocated relatively high network upgrade costs, they offer no such commensurate protection for interconnection customers with lower network upgrade cost assignments, reflecting an imbalanced withdrawal penalty structure.

794. We also adopt and modify the proposed definition of “withdrawal penalty” in section 1 of the *pro forma* LGIP to address situations in which it may be unclear what it means to be withdrawn from the interconnection queue. Specifically, we clarify that a withdrawal penalty applies when an interconnection customer actively chooses to withdraw its interconnection request but also when its interconnection request is deemed to have been withdrawn from the interconnection queue for one reason or another, or if it otherwise does not reach commercial operation, per the terms of the *pro forma* LGIP.

795. Commenters observe that, under the NOPR proposal, interconnection

customers with large projects (in terms of MW) would be subject to large withdrawal penalties.¹⁵¹⁵ While this is true for the initial withdrawal penalty, which continues to be based on project size because it is tied to study costs, the modification to the NOPR proposal described above, where later withdrawal penalties are based on percentages of identified network upgrade costs, reflects the potential impact of a withdrawal on the remaining interconnection customers in a cluster. Additionally, as some commenters point out, there is typically a correlation between the size of the proposed generating facility and the relative harm to other interconnection customers from the withdrawal of the interconnection request, so we believe that basing the initial withdrawal penalty on project size is appropriate.¹⁵¹⁶

796. Because we modify the process for distributing withdrawal penalty funds in response to comments, as described below, transmission providers will not accumulate large amounts of funds from withdrawal penalties, and therefore Shell’s concerns are moot.¹⁵¹⁷

797. Furthermore, we believe the proposed *pro forma* LGIP section 3.7.1.2 requirement that transmission providers post on their OASIS site, and update quarterly, the balance of withdrawal penalty revenue held by them but not yet dispersed, and the instructions of how to distribute withdrawal penalty funds contained in this provision provide sufficient transparency to help interested parties understand, monitor, and review withdrawal penalty funds. Transmission providers have substantial experience collecting and accounting for fees assessed to customers, and we will not mandate here what accounting method they should use for the collection and tracking of withdrawal penalties.

798. With respect to the distribution of withdrawal penalty funds, we adopt the NOPR proposal to require transmission providers to use withdrawal penalty funds to fund studies and restudies conducted under the cluster study process, with modification. Specifically, we adopt a structure whereby, if interconnection customers withdraw and are subject to withdrawal penalties, the transmission provider must use the withdrawal penalty funds as follows: (1) to fund studies and restudies in the same

cluster; (2) if withdrawal penalty funds remain, to offset net increases in costs borne by other remaining interconnection customers from the same cluster for network upgrades shared by both the withdrawing and non-withdrawing interconnection customers prior to the withdrawal; and (3) if any withdrawal penalty funds remain, they will be returned to the withdrawing interconnection customer.

799. We believe that using withdrawal penalty funds to reduce network upgrade cost shifts caused by withdrawals will reduce the risk that the shifted costs are so large as to cause cascading withdrawals, thus ensuring that interconnection customers are able to interconnect in a reliable, efficient, transparent, and timely manner. We agree with Invenergy that it is appropriate for there to be a relationship between the impact caused by the withdrawal of an interconnection request and how the withdrawal penalty funds are distributed. We also are persuaded by Invenergy, PJM, NextEra, and Southern that there are benefits to distributing withdrawal penalty funds to other interconnection customers remaining in the cluster to offset increased network upgrade costs resulting from the withdrawal.¹⁵¹⁸ We therefore modify the NOPR proposal and revise section 3.7.1 of the *pro forma* LGIP consistent with the discussion below.

800. In the paragraphs that follow we summarize the steps a transmission provider must follow in distributing withdrawal penalty funds, as fully detailed in section 3.7.1.2 of the *pro forma* LGIP, and we present an illustrative example.

801. Section 3.7.1.2.1 of the *pro forma* LGIP describes the transmission provider’s handling of withdrawal penalty funds and the first step of distributing them to fund studies and restudies. For a single cluster, the transmission provider shall hold all withdrawal penalty funds until all interconnection customers in that cluster have: (1) withdrawn or been deemed withdrawn; (2) executed an LGIA; or (3) requested an LGIA to be filed unexecuted. Any withdrawal penalty funds collected shall first be used to fund studies for interconnection customers in the same cluster that have executed an LGIA or requested an LGIA to be filed unexecuted. Distribution of the withdrawal penalty funds for such

¹⁵¹⁵ See Hydropower Commenters Initial Comments at 26; rPlus Initial Comments at 5.

¹⁵¹⁶ Avangrid Initial Comments at 20; CAISO Initial Comments at 24; Idaho Power Initial Comments at 8; National Grid Initial Comments at 26–27; PPL Initial Comments at 17.

¹⁵¹⁷ Shell Initial Comments at 18–19.

¹⁵¹⁸ Invenergy Initial Comments at 27–28; NextEra Initial Comments at 27–28; PJM Initial Comments at 39; Southern Initial Comments at 20–21.

¹⁵¹⁴ See CAISO Initial Comments at 23–24.

study costs shall not exceed the total actual study costs.

802. Section 3.7.1.2.2 of the *pro forma* LGIP provides that if, after the first distribution step is complete, withdrawal penalty funds remain, the transmission provider must proceed to the second step of distributing them to offset net increases in network upgrade cost assignments driven by the withdrawal. The transmission provider will determine if the withdrawn interconnection customers, at any point in the cluster study process, shared cost assignment for one or more network upgrades with any remaining interconnection customers in the same cluster based on the cluster study report, cluster restudy report(s), interconnection facilities study report, and any subsequent issued restudy report for the cluster.

803. If the transmission provider determines that withdrawn interconnection customers shared cost assignment for network upgrades with remaining interconnection customers in the same cluster, the transmission provider will calculate the remaining interconnection customers' net increase in costs (*i.e.*, financial impact) due to a shared cost assignment for network upgrades with the withdrawn interconnection customer. It will then distribute withdrawal penalty funds as described in section 3.7.1.2.3 of the *pro forma* LGIP, depending on whether the withdrawal occurred before the withdrawing interconnection customer executed an LGIA (*i.e.*, during the cluster study process) or after.

804. If the transmission provider determines that more than one interconnection customer in the same cluster was financially impacted by the same withdrawn interconnection customer, the transmission provider will apply the relevant withdrawn interconnection customer's withdrawal penalty to reduce the financial impact to each impacted interconnection customer based on each withdrawn interconnection customer's proportional share of the financial impact. Each interconnection customer's proportional share will be determined by either the proportional impact method if the net cost increase is related to a system network upgrade or on a per capita basis if the net cost increase is related to a substation network upgrade.

805. Section 3.7.1.2.4 of the *pro forma* LGIP details the process by which the transmission provider will provide amended LGIAs to any interconnection customers in the cluster that qualify for distribution of withdrawal penalty funds under this framework. To account for withdrawals that occurred *during*

the cluster study process, the transmission provider must do the following: Within 30 calendar days of all interconnection customers in the same cluster having: (1) withdrawn or been deemed withdrawn; (2) executed an LGIA; or (3) requested an LGIA to be filed unexecuted, determine if, and to what extent, any interconnection customers qualify to have their increased network upgrade costs offset by withdrawal penalty funds and provide such interconnection customers with an amended LGIA that provides the reduction in network upgrade cost assignment and associated reduction to the interconnection customer's financial security requirements.

806. To account for withdrawals that occurred in the same cluster *after the withdrawing interconnection customer executed an LGIA, or requests the filing of an unexecuted LGIA*, the transmission provider must do the following: Within 30 calendar days of such withdrawal or termination, determine if, and to what extent, any interconnection customers qualify to have their increased network upgrade costs offset by withdrawal penalty funds and provide such interconnection customers with an amended LGIA that provides the reduction in network upgrade cost assignment and associated reduction to the interconnection customer's financial security requirements.

807. For any given withdrawal, if the transmission provider determines that there are no network upgrade cost assignments in the withdrawn interconnection customer's cluster shared with the withdrawn interconnection customer, or if the transmission provider determines that the withdrawn interconnection customer's withdrawal did not cause a net increase in the shared cost assignment for any remaining interconnection customers in the cluster, the transmission provider must return the remaining withdrawal penalty to the withdrawn interconnection customer. Such remaining withdrawal penalties will be returned to withdrawn interconnection customers based on the proportion of each withdrawn interconnection customer's contribution to the total amount of withdrawal penalty funds collected for the cluster. The transmission provider must make such disbursement within 60 calendar days of the date on which all interconnection customers in the same cluster have either (1) withdrawn or been deemed withdrawn; (2) executed an LGIA; or (3) requested an LGIA to be filed unexecuted.

808. By way of example, assume that the transmission provider's proportional impact method identifies that interconnection customers A, B, and C in the same cluster all contribute to the need for system network upgrade A, estimated at \$40 million, in the proportions of 50%, 25% and 25%, respectively. Interconnection customer C withdraws from the interconnection queue after the facilities study, but before executing, or requesting the unexecuted filing of, the LGIA and pays a withdrawal penalty of \$1 million.¹⁵¹⁹ System network upgrade A is still required for interconnection customers A and B, and when the transmission provider conducts the proportional impact method in the cluster restudy for the same cluster, it now determines that interconnection customer A's revised network upgrade cost allocation for system network upgrade A would increase to 67% and interconnection customer B's revised network upgrade cost allocation for system network upgrade A would increase to approximately 33%. The transmission provider would base the distribution of this interconnection customer's withdrawal penalty on the proportional impact analysis and credit 67% of the \$1 million to interconnection customer A and 33% to interconnection customer B.

809. Finally, section 3.7.1.2.5 of the *pro forma* LGIP provides that if, after the first and second distribution steps are complete, some or all of an interconnection customer's withdrawal penalty remains, the transmission provider must return the balance of the withdrawn interconnection customer's withdrawal penalty funds to the withdrawn interconnection customer.

810. In response to commenter's concerns regarding the ability of transmission providers to collect withdrawal penalties from interconnection customers,¹⁵²⁰ we further clarify that, in addition to study deposits, transmission providers must apply commercial readiness deposits received from the interconnection customer that exceed the costs that the transmission provider has incurred, including interest calculated in accordance with § 35.19a(a)(2) of the Commission's regulations, toward any

¹⁵¹⁹ In this example, interconnection customer C paid a \$1 million withdrawal penalty because it was allocated \$10 million in network upgrade cost (*i.e.*, 25% of \$40 million) and withdrew after receiving the facilities study report, at which point the withdrawal penalty is 10% of the amount of network upgrades allocated to the interconnection customer.

¹⁵²⁰ APS Initial Comments at 16; EEI Initial Comments at 8; Eversource Initial Comments at 19; MISO Initial Comments at 69.

withdrawal penalties assessed to the interconnection customer, in accordance with *pro forma* LGIP section 3.7.

811. In response to NV Energy and Invenergy, we clarify that an interconnection customer that withdraws during any time in the interconnection process is responsible for the applicable withdrawal penalty as well as the costs incurred to perform studies up to that point, and withdrawal penalty amounts will not be applied toward incurred study costs. Additionally, in response to NV Energy, we clarify that if any portion of a generating facility proposed in an interconnection request achieves commercial operation, even if less than the original requested MW amount, the interconnection customer will not be subject to withdrawal penalties.

812. In response to Tri-State, we clarify that the phrase “regardless of any previous Withdrawal Penalty revenues received” in *pro forma* LGIP section 3.7.1.1 means that the withdrawal penalty will be calculated based on actual study costs and will exclude any credits to the study costs from penalties assessed to and received from other interconnection customers.

813. We disagree with commenters that assert that a technical conference is needed to further develop the record on withdrawal penalties before finalizing requirements in this final rule. For the reasons explained above, we believe that the record supports the reforms that we adopt herein and that their adoption is needed to ensure that interconnection customers are able to interconnect in a reliable, efficient, transparent, and timely manner.

7. Transition Process

a. NOPR Proposal

814. In the NOPR, the Commission proposed to revise the *pro forma* LGIP to require transmission providers to establish a transition process for moving to a first-ready, first-served cluster study process.¹⁵²¹ Specifically, the Commission proposed to require transmission providers to offer existing, eligible interconnection customers the options to either enter a transitional serial interconnection facilities study or a transitional cluster study,¹⁵²² with commercial readiness requirements, or

withdraw from the interconnection queue without penalty.

815. To proceed to the transitional serial study, the Commission proposed that eligible interconnection customers (*i.e.*, interconnection customers that have executed a facilities study agreement before the effective date of the transmission provider’s compliance filing) would execute a transitional serial interconnection facilities study agreement to codify their choice.¹⁵²³ The Commission proposed that at the time of execution of such agreement, the interconnection customer would be required to provide a deposit equal to 100% of the interconnection facility and network upgrade costs allocated to the interconnection customer in the system impact study report. The Commission explained that if the interconnection customer’s proposed generating facility reaches commercial operation, this deposit would be used toward construction costs of the same facilities.

816. The Commission further explained that if the interconnection customer withdraws, the deposit would be refunded after the final invoice for study costs and the withdrawal penalty are settled. The Commission proposed that the transitional serial study withdrawal penalty would equal nine times the study cost. The Commission also proposed that transitional serial generating facilities would be required to provide evidence of exclusive site control for the entire generating facility and any interconnection customer’s interconnection facilities, as well as demonstrate commercial readiness through one of the following: (1) an executed term sheet (or comparable evidence) related to a contract for the sale of the generating facility’s output or its energy/ancillary services; (2) reasonable evidence that the generating facility is included in a resource planning entity’s resource plan, has received a contract via a resource solicitation process, or is being developed for a large end-use customer; or (3) a provisional LGIA that is not suspended and includes a commitment to build the generating facility. The Commission proposed that the deadline for the interconnection customer to meet all the provisions above would be 60 calendar days after the effective date of a transmission provider’s compliance filing to the final rule. Finally, the Commission proposed that the transmission provider complete transitional serial studies within 90 calendar days after the deadline for

eligibility requirements to be satisfied.¹⁵²⁴

817. The Commission proposed that existing interconnection customers that opt for the transitional cluster study would execute a transitional cluster study agreement to codify their choice.¹⁵²⁵ The Commission proposed that interconnection customers may make a one-time extension of their requested commercial operation date upon entry into the transitional cluster study, where any such extension shall not result in a commercial operation date later than December 31, 2027. The Commission proposed that the costs of this study and the identified facilities would be allocated as the costs are allocated for future cluster studies, as set forth in this final rule. The Commission also proposed that the transitional cluster would be subject to an expedited combined system impact and interconnection facilities study. The Commission explained that transitional cluster study generating facilities would be required to select ERIIS or NRIS. The Commission proposed to require interconnection customers opting for a transitional cluster study to make a \$5 million deposit. The Commission proposed to subject this deposit to the same conditions as the transitional serial study deposit.

818. The Commission also proposed to require interconnection customers with interconnection requests in the transitional cluster to produce evidence of exclusive site control for their entire generating facilities and demonstrate commercial readiness through one of the same three options described above for transitional serial studies.¹⁵²⁶ The Commission proposed that the deadline to satisfy these requirements would be 60 calendar days after the effective date of a transmission provider’s compliance filing to the final rule. Finally, the Commission proposed that the transitional cluster study be completed by the transmission provider within 300 calendar days after the deadline for eligibility requirements to be satisfied.

819. The Commission sought comment on: (1) whether certain interconnection customers with pending interconnection requests submitted prior to the issuance of a final rule should be allowed to proceed to LGIA execution without entering the transition process; (2) whether the Commission should require transmission providers to accept any additional commercial readiness demonstrations for entry into the

¹⁵²¹ NOPR, 179 FERC ¶ 61,194 at P 156.

¹⁵²² In the NOPR, the Commission explained that the transmission provider would consider all interconnection requests accepted within a standard cluster study request period have equal queue priority for purposes of the cluster study. *See id.* P 67. This would be true for all interconnection requests accepted for the transitional cluster study as well, per the NOPR.

¹⁵²³ *Id.* P 158.

¹⁵²⁴ NOPR, 179 FERC ¶ 61,194 at P 158.

¹⁵²⁵ *Id.* P 159.

¹⁵²⁶ *Id.* P 159.

transition process, and whether existing interconnection customers should be permitted to enter their interconnection requests into the transitional cluster study process by posting a deposit in lieu of demonstrating commercial readiness; and (3) whether \$5 million is a reasonable estimate of the costs that would be allocated to the interconnection customer via the transitional cluster study.¹⁵²⁷

b. Comments

i. Comments in Support

820. A few commenters fully support the proposed transition process.¹⁵²⁸ For example, NRECA states that it strongly supports the proposed transition process because it fulfills the Commission's goal of ensuring an efficient way to prioritize and process interconnection requests, based on how far they have advanced through the interconnection process and their commercial readiness.¹⁵²⁹

821. More commenters support the NOPR's core proposal to require transmission providers to offer interconnection customers with existing interconnection requests three options for moving forward (*i.e.*, entering a transitional serial study, entering a transitional cluster study, or withdrawing without penalty).¹⁵³⁰ For example, Pine Gate asserts that, given the current interconnection queue backlogs in multiple regions, it is essential that the Commission craft a transition process that permits late-stage interconnection requests to finish the interconnection process under the existing rules, while transitioning most interconnection requests to the new cluster study process.¹⁵³¹

822. With respect to the transitional serial study,¹⁵³² many commenters, predominantly interconnection customers, support the proposal to

provide this option to interconnection customers that have executed a facilities study agreement.¹⁵³³ AEE and Pine Gate state that this provision respects the investments made by interconnection customers based on current interconnection procedures.¹⁵³⁴ Similarly, Pattern Energy argues that, at the facilities study stage, an interconnection customer has relatively concrete economic expectations about its potential network upgrade obligations and should not be required to start the interconnection process over again.¹⁵³⁵

823. Other commenters express qualified support for the proposal. Noting that significant investments have been made and that generating facility contracting and financing patterns have been developed based on existing tariffs, Interwest calls for a structured, well-noticed transition period, to allow the market sufficient time to adjust to new processes, especially if the new process dramatically alters interconnection and cost allocation principles.¹⁵³⁶ Similarly, the Pennsylvania Commission agrees that a transition process is necessary to integrate the Commission's proposed interconnection queue reforms to allow individual interconnection customers the opportunity to decide, based on the newly adopted minimum interconnection parameters, whether to remain in the interconnection queue.¹⁵³⁷

ii. Comments in Opposition

824. CREA and NewSun argue that the proposed transition process is unnecessary, as a first-ready, first-served cluster study process places the decision to enter a cluster in the hands of the interconnection customer regardless of whether there are previously queued interconnection requests.¹⁵³⁸ In a similar vein, EEI contends that it would be reasonable to require transmission providers to establish their own transition processes or to allow existing interconnection customers to proceed to LGIA execution

without entering the transition process.¹⁵³⁹

825. CREA and NewSun also fault the proposal to treat all interconnection requests in a transitional cluster as having a single queue priority because it fails to protect the investment expectations of interconnection customers with interconnection requests that have entered the interconnection queue.¹⁵⁴⁰ CREA and NewSun argue that the Commission has previously recognized that queue positions should be respected and either grandfathered or otherwise transitioned into a cluster study process that avoids devaluing the existing queue position. CREA and NewSun urge the Commission to modify its proposed cluster study process so that higher-queued interconnection requests are given a higher-priority than lower-queued interconnection requests. CREA and NewSun explain that this has worked in CAISO and Bonneville, which they assert uses a similar mechanism to respect queue positions in its transmission planning expansion process.

826. Shell requests that the Commission let existing processes continue for all interconnection customers that have executed a system impact study agreement or cluster study agreement because such processes, while not perfect, are functioning "well enough."¹⁵⁴¹ Illinois Commission expresses more general concern about the time required for a transition process to be completed, noting that PJM's transition process for a recent set of interconnection queue reforms is expected to result in significant delays.¹⁵⁴² Such delays, Illinois Commission contends, could prompt withdrawals and less-than-optimal use of potential new resources, which in turn would undermine state public policy goals and potentially threaten reliability. Longroad Energy similarly recommends that the Commission seek to avoid creating a situation whereby a transmission provider is forced to institute a pause on reviewing interconnection requests, similar to PJM's recent proposal to halt its review of interconnection requests for a two-year period.¹⁵⁴³

iii. Comments on Specific Proposal

(a) Serial Study Eligibility and Transition Process Exceptions

827. Numerous commenters express support for one or more of the eligibility

¹⁵²⁷ *Id.* P 160.

¹⁵²⁸ Affected Interconnection Customers Initial Comments at 13; Consumers Energy Initial Comments at 5; Idaho Power Initial Comments at 9; Longroad Energy Reply Comments at 16; NRECA Initial Comments at 9, 31.

¹⁵²⁹ NRECA Initial Comments at 31.

¹⁵³⁰ Clean Energy Associations Initial Comments at 42–43; ENGIE Initial Comments at 7; NARUC Initial Comments at 10; NextEra Initial Comments at 28; Ørsted Initial Comments at 13; Pine Gate Initial Comments at 35–36.

¹⁵³¹ Pine Gate Initial Comments at 35–36; *see also* NextEra Initial Comments at – +28.

¹⁵³² Note that most commenters refer to this as "proceeding to LGIA" or "proceeding to LGIA without going through the transition process," while a few use the term "transitional serial study." These terms are taken to be synonymous because the NOPR describes the transitional serial study process as permitting interconnection customers to "continue under the existing serial study process, enter into an LGIA, and interconnect." *See* NOPR, 179 FERC ¶ 61,194 at P 158.

¹⁵³³ AEE Initial Comments at 27; AES Initial Comments at 20; Affected Interconnection Customers Initial Comments at 9; Idaho Power Initial Comments at 9; Longroad Energy Reply Comments at 16; NARUC Initial Comments at 10; NextEra Initial Comments at 28; Northwest and Intermountain Initial Comments at 5; Ørsted Initial Comments at 14; Pattern Energy Initial Comments at 35; Pine Gate Initial Comments at 37; SEIA Initial Comments at 28.

¹⁵³⁴ AEE Initial Comments at 27; Pine Gate Initial Comments at 37.

¹⁵³⁵ Pattern Energy Initial Comments at 35.

¹⁵³⁶ Interwest Initial Comments at 6, 23–24.

¹⁵³⁷ Pennsylvania Commission Initial Comments at 15.

¹⁵³⁸ CREA and NewSun Initial Comments at 79.

¹⁵³⁹ EEI Initial Comments at 9.

¹⁵⁴⁰ CREA and NewSun Initial Comments at 45.

¹⁵⁴¹ Shell Initial Comments at 37.

¹⁵⁴² Illinois Commission Initial Comments at 7.

¹⁵⁴³ Longroad Energy Reply Comments at 16–17.

requirements proposed in the NOPR. To proceed with a transitional serial study, Affected Interconnection Customers agree that interconnection customers should provide evidence of exclusive site control, demonstrate commercial readiness, and fund 100% of their interconnection facility and network upgrade costs upfront.¹⁵⁴⁴ Affected Interconnection Customers reason that delays in processing interconnection requests occur if speculative interconnection requests without adequate funding are allowed to enter and clog the serial study process, only to drop out later and cause the need for restudies.

828. However, Bonneville, PJM, OPSI, RWE Renewables, and NextEra express concern that offering interconnection customers a serial study option may be inefficient.¹⁵⁴⁵ Bonneville states that it has received 52 interconnection requests, totaling 33 GW, in the 90 days since the NOPR's issuance, and that completing existing studies under the current process could delay Bonneville's ability to implement a new cluster study process, thus diminishing its near-term benefits.¹⁵⁴⁶ OPSI calls for the Commission to analyze whether this option could materially delay the transition process, and if so, consider using a cluster study process as soon as feasible in the transition.¹⁵⁴⁷ Similarly, RWE Renewables assert that all parties should already be on notice about the pending changes, allowing for swifter movement to new processes, particularly for those that have not yet had any studies completed.¹⁵⁴⁸ NextEra argues that it is best for all interconnection customers at the same stage in the interconnection process to abide by the same transition rules rather than giving them a choice between a serial or cluster study process.¹⁵⁴⁹

829. Several commenters suggest broadening opportunities for a transitional serial study and/or exempting certain interconnection requests from transitional study. AEE, Clean Energy Associations, and Pine Gate support allowing interconnection requests with an executed or unexecuted facilities study agreement to proceed with a serial study.¹⁵⁵⁰ Clean

Energy Associations propose serial study eligibility for any interconnection request that has a system impact study underway, provided the interconnection customer can meet commercial readiness demonstration and deposit requirements on par with what would be required at the equivalent stage of the standard cluster study process.¹⁵⁵¹ ENGIE supports a process that exempts interconnection requests with interconnection costs of \$5 million or less from a transitional study.¹⁵⁵² ENGIE also proposes that interconnection requests that do not contribute to the need for network upgrades and/or do not need facilities studies be permitted to proceed to an LGIA early.

830. Cypress Creek suggests that eligibility for a transitional serial study¹⁵⁵³ be based on: (1) a specified interconnection queue window developed through a stakeholder process that extends to late stage interconnection requests; and (2) an objective assessment of the plotted distribution of total network upgrades (in terms of millions of dollars) to which the candidate interconnection request contributes, such that the total number of interconnection requests eligible for transitional serial and transitional cluster studies is known so transitional studies can be completed by a reasonable deadline.¹⁵⁵⁴ Cypress Creek states that the distribution curve of network upgrades will help support eligibility to those interconnection requests on the lower half of impacts. Finally, Cypress Creek suggests that the Commission establish a date by which the transitional serial process would conclude, and by which the transitional cluster process would begin. Following these transitional studies, Cypress Creek recommends that the new cluster study process commence, in lieu of the second transitional cluster proposed by the Commission. Cypress Creek argues that this more rapid transition process better balances interconnection rights of late-stage interconnection requests with the need to move to the new process compared to the proposed transition process.

(b) New Requirements on Existing Interconnection Customers

831. AEE, Invenery, NESCOE, and Shell argue that it is wrong, or could be unfairly burdensome, to impose significant new requirements on

interconnection customers that have entered and proceeded through the interconnection queue in good faith.¹⁵⁵⁵ Invenery adds that this is especially true of interconnection customers that may have entered the interconnection queue years before the NOPR was issued.¹⁵⁵⁶ Other commenters make similar points.¹⁵⁵⁷

832. AEE and EDF Renewables stress the importance of not disrupting or further delaying interconnection requests that are well along in the interconnection process.¹⁵⁵⁸ ACE-NY states, more broadly, that interconnection requests currently in serial interconnection queues should not be unduly harmed, adding that any transition process should not delay the commercial operation date of existing and future generating facilities.¹⁵⁵⁹

833. Clean Energy Associations argue that transition interconnection customers, whether they be in the serial or cluster study process, should not be held to higher standards than those interconnection customers that would proceed with the regular cluster study process unless the transition process leads to an LGIA and includes only ready interconnection requests that have been delayed in the existing interconnection queue.¹⁵⁶⁰ Invenery concurs with this principle, if the Commission elects to impose requirements on existing interconnection customers.¹⁵⁶¹

(c) Deposits

834. Several commenters object to the proposal to require that interconnection customers, at the time of execution of the transitional serial study agreement, provide a deposit equal to 100% of the interconnection facility and network upgrade costs allocated to them in the system impact study report.¹⁵⁶² AEE and EDF Renewables argue that the costs assigned at the system impact study stage often vary significantly from the network upgrade costs provided at

¹⁵⁴⁴ Affected Interconnection Customers Initial Comments at 10.

¹⁵⁴⁵ Bonneville Initial Comments at 14; NextEra Initial Comments at 28; OPSI Initial Comments at 6; PJM Initial Comments at 42; RWE Renewables Initial Comments at 1–2.

¹⁵⁴⁶ Bonneville Initial Comments at 14.

¹⁵⁴⁷ OPSI Initial Comments at 6.

¹⁵⁴⁸ RWE Renewables Initial Comments at 2.

¹⁵⁴⁹ NextEra Initial Comments at 28.

¹⁵⁵⁰ AEE Initial Comments at 27; Clean Energy Associations Initial Comments at 43; Pine Gate Initial Comments at 37.

¹⁵⁵¹ Clean Energy Associations Initial Comments at 43.

¹⁵⁵² ENGIE Initial Comments at 7.

¹⁵⁵³ The original term used by Cypress Creek, “transitional serial cluster,” is assumed to mean transitional serial study.

¹⁵⁵⁴ Cypress Creek Initial Comments at 25–26.

¹⁵⁵⁵ AEE Initial Comments at 26; Invenery Initial Comments at 37; NESCOE Reply Comments at 10; Shell Initial Comments at 37.

¹⁵⁵⁶ Invenery Initial Comments at 37.

¹⁵⁵⁷ AEE Initial Comments at 26; EDF Renewables Initial Comments at 8; ACE-NY Initial Comments at 4; AEE Initial Comments at 26; EDF Renewables Initial Comments at 8; Northwest and Intermountain Initial Comments at 2, 5.

¹⁵⁵⁸ AEE Initial Comments at 26; EDF Renewables Initial Comments at 8.

¹⁵⁵⁹ ACE-NY Initial Comments at 4.

¹⁵⁶⁰ Clean Energy Associations Initial Comments at 43.

¹⁵⁶¹ Invenery Initial Comments at 38.

¹⁵⁶² Clean Energy Associations Initial Comments at 43; Cypress Creek Initial Comments at 26; EDF Renewables Initial Comments at 9; Invenery Initial Comments at 38; Pine Gate Initial Comments at 36; SEIA Initial Comments at 28.

the facilities study stage.¹⁵⁶³ EDF Renewables also argue that the NOPR proposal is inconsistent with Order No. 2003, which specifically rejected such a proposal in favor of requiring security for discrete portions of these costs.¹⁵⁶⁴ EDF Renewables adds that requiring a full deposit imposes a real cost on interconnection customers, which typically obtain a letter of credit from a bank.

835. Likewise, several commenters object to the proposal to require a \$5 million deposit to proceed to the transitional cluster study.¹⁵⁶⁵ Most of these commenters claim that \$5 million dollars is excessive and/or arbitrary;¹⁵⁶⁶ fails to reflect the relative impact of smaller proposed generating facilities;¹⁵⁶⁷ likely is not indicative of costs across all markets;¹⁵⁶⁸ and will prompt otherwise viable interconnection requests to withdraw.¹⁵⁶⁹ With respect to the NOPR's reliance on PSCo's claim that \$5 million is within the range of interconnection costs on its system, CREA and NewSun question whether PSCo intended the deposit to serve as a barrier to its competitors in the generation market.¹⁵⁷⁰ CREA and NewSun note that the three orders cited by the Commission in the NOPR mention a \$5 million deposit, but none provide a reasoned decision for acceptance of this deposit amount.¹⁵⁷¹ Conversely, Xcel asserts that \$5 million dollars is a low estimate of costs that may ultimately be allocated to interconnection customers.¹⁵⁷²

836. AEE, Invenergy, and Pine Gate recommend that the deposit for either the transitional serial facilities study agreement or transitional cluster study

agreement reflect a percentage of the network upgrade costs allocated to the interconnection customer, with Invenergy recommending 20%.¹⁵⁷³ Northwest and Intermountain and Xcel recommend that the final rule require transmission providers to propose a deposit amount for transitional studies that is appropriate to their interconnection queue and their specific system configurations.¹⁵⁷⁴ Xcel suggests that the Commission should accept proposals that use an average of actual historical estimates of costs allocated to interconnection customers with executed LGIAs to determine the security required to enter the transitional cluster.¹⁵⁷⁵

(d) Commercial Readiness and Site Control

837. Idaho Power and Xcel emphasize the importance of requiring a commercial readiness demonstration to enter the transition process.¹⁵⁷⁶ Xcel argues that if a readiness demonstration is not required, unready interconnection requests may be in the study models for more than three years after they execute an LGIA and when they ultimately withdraw, which will cause delays and cascading restudies.¹⁵⁷⁷ Idaho Power asserts that commercial readiness demonstrations for interconnection customers with executed LGIAs are also critical, as their resource and network upgrades will need to be modeled in the transitional cluster study.¹⁵⁷⁸ NRECA proposes that interconnection customers that show requisite site control and commercial readiness proceed to the "front of the line" as "first-ready" in the transition cluster process without additional evaluation.¹⁵⁷⁹ Both Idaho Power and EEI recommend that interconnection customers with LGIAs, but that have suspended interconnection-related construction, be required to meet the commercial readiness requirements, with EEI also recommending that they be required to demonstrate site control.¹⁵⁸⁰

838. In addition to the proposed commercial readiness demonstration requirements, Affected Interconnection Customers recommend that interconnection customers also be

allowed to provide evidence of (1) major equipment either contracted to purchase or owned as part of an existing equipment fleet or (2) a completed engineering package under provisional LGIAs.¹⁵⁸¹ SEIA recommends that interconnection customers be allowed to demonstrate commercial readiness by providing a commitment to participate in RTO/ISO markets or an application for a site permit.¹⁵⁸²

839. A number of commenters oppose the NOPR's proposed commercial readiness requirements, as applied to the transition process.¹⁵⁸³ SEIA states that the proposed requirements will be nearly impossible for an independent power producer to meet and ignore the very nature of a capacity market, which is to allow independent power producers to sell capacity into a market.¹⁵⁸⁴

840. Several commenters support allowing a deposit in lieu of demonstrating commercial readiness, as applied to the transition process.¹⁵⁸⁵ Pattern Energy argues for this option to be available specifically for the transitional cluster study and recommends a \$5 million deposit value.¹⁵⁸⁶ Pattern Energy claims that this would balance the need for interconnection customers that may have been waiting for years to have their interconnection requests studied with the need to transition to a new process. SEIA and Pine Gate recommend that a commercial readiness deposit should be the norm, not the exception, with SEIA also recommending that interconnection customers be required to provide evidence of site control.¹⁵⁸⁷ Pine Gate recommends a readiness deposit framework that requires interconnection customers to make incrementally at-risk payments throughout the interconnection process.¹⁵⁸⁸

841. At the same time, several commenters oppose permitting deposits in lieu of demonstrating commercial readiness, as applied to the transition process.¹⁵⁸⁹ Ameren calls such deposits "opportunities for delay" that will not facilitate the interconnection of

¹⁵⁶³ AEE Initial Comments at 26–27; EDF Renewables Initial Comments at 9.

¹⁵⁶⁴ EDF Renewables Initial Comments at 9 (citing Order No. 2003, 104 FERC ¶ 61,103 at P 596).

¹⁵⁶⁵ AEE Initial Comments at 26; Clean Energy Associations Initial Comments at 43; CREA and NewSun Initial Comments at 81; EDF Renewables Initial Comments at 9; Invenergy Initial Comments at 38; Northwest and Intermountain Initial Comments at 5; Pine Gate Initial Comments at 36.

¹⁵⁶⁶ AEE Initial Comments at 26; Clean Energy Associations Initial Comments at 43; CREA and NewSun Initial Comments at 81; EDF Renewables Initial Comments at 9; Pine Gate Initial Comments at 36.

¹⁵⁶⁷ CREA and NewSun Initial Comments at 81; EDF Renewables Initial Comments at 9.

¹⁵⁶⁸ AEE Initial Comments at 26; CREA and NewSun Initial Comments at 81; Pine Gate Initial Comments at 36.

¹⁵⁶⁹ AEE Initial Comments at 26.

¹⁵⁷⁰ CREA and NewSun Initial Comments at 81.

¹⁵⁷¹ *Id.* at 81–82 (citing *Pub. Serv. Co. of Colo., 169 FERC ¶ 61,182; Tri-State Generation & Transmission Ass'n, Inc., 173 FERC ¶ 61,015; Tri-State Generation & Transmission Ass'n, Inc., 174 FERC ¶ 61,021 (2021).*

¹⁵⁷² Xcel Initial Comments at 36.

¹⁵⁷³ AEE Initial Comments at 26; Invenergy Initial Comments at 38; Pine Gate Initial Comments at 36.

¹⁵⁷⁴ Northwest and Intermountain Initial Comments at 5; Xcel Initial Comments at 36.

¹⁵⁷⁵ Xcel Initial Comments at 36.

¹⁵⁷⁶ Idaho Power Initial Comments at 9; NRECA Initial Comments at 31; Pattern Energy Initial Comments at 35; Xcel Initial Comments at 36.

¹⁵⁷⁷ Xcel Initial Comments at 36.

¹⁵⁷⁸ Idaho Power Initial Comments at 9.

¹⁵⁷⁹ NRECA Initial Comments at 31.

¹⁵⁸⁰ EEI Initial Comments at 9–10; Idaho Power Initial Comments at 9.

¹⁵⁸¹ Affected Interconnection Customers Initial Comments at 10–11.

¹⁵⁸² SEIA Reply Comments at 12.

¹⁵⁸³ AEE Initial Comments at 26; CREA and NewSun Initial Comments at 79; Pine Gate Initial Comments at 36; SEIA Initial Comments at 29.

¹⁵⁸⁴ SEIA Initial Comments at 28.

¹⁵⁸⁵ AEE Initial Comments at 26; EDF Renewables Initial Comments at 9; Invenergy Initial Comments at 38; Pattern Energy Initial Comments at 35.

¹⁵⁸⁶ Pattern Energy Initial Comments at 35.

¹⁵⁸⁷ SEIA Initial Comments at 29.

¹⁵⁸⁸ Pine Gate Initial Comments at 36.

¹⁵⁸⁹ Ameren Initial Comments at 19; EEI Initial Comments at 10; Idaho Power Initial Comments at 9; Xcel Initial Comments at 36.

interconnection requests for which the interconnection customer has demonstrated commercial readiness.¹⁵⁹⁰ Idaho Power opposes the option because the transitional cluster study is an expedited, combined system impact and interconnection facilities study.¹⁵⁹¹ If the Commission does allow a deposit, EEI argues that the option should apply only in specific circumstances, and should be sufficiently high to deter interconnection requests that are not ready from entering the transitional cluster.¹⁵⁹²

(e) Withdrawal Penalties

842. Many commenters oppose the NOPR's proposed transition process withdrawal penalties.¹⁵⁹³ CREA and NewSun, Pine Gate, and Ørsted call the penalties harsh or draconian.¹⁵⁹⁴ Ørsted notes that offshore wind project interconnection customers with contracts awarded via a state-sponsored resource solicitation process have already spent tens of millions of dollars to secure leaseholds, conduct extensive geotechnical studies of these lease areas, and engineering studies.¹⁵⁹⁵ Given these investments, Ørsted contends that the decision to withdraw from the interconnection queue is most likely going to be based on some issue outside of the control of the interconnection customer, such as supply chain constraints, and not because the interconnection request will not go forward at some point.

843. AES states that withdrawal should be penalty-free if an interconnection customer decides not to move forward with a proposed generating facility during the transition.¹⁵⁹⁶ EDF Renewables asserts that a transition process should offer existing interconnection customers an opportunity to exit the interconnection queue in line with what they expected when entering.¹⁵⁹⁷ SEIA recommends that the withdrawal penalty for interconnection customers in the transitional cluster study be capped at the withdrawing interconnection request's allocation of network upgrade costs.¹⁵⁹⁸

(f) Compliance Timeline

844. NRECA supports the NOPR's proposed timeline for compliance.¹⁵⁹⁹ NRECA states that the 180-day¹⁶⁰⁰ period proposed in the NOPR would be sufficient to allow interconnection customers to get their deposits, site control, and commercial readiness demonstrations in order.¹⁶⁰¹ PPL states that transmission providers should continue moving requests to the LGIA execution stage and have interconnection customers demonstrate commercial readiness as normal until the effective date of the transition process.¹⁶⁰²

845. AES, CREA and NewSun, and Invenery assert that the NOPR's proposed 60-day deadline for compliance is difficult or impossible to meet for most interconnection customers.¹⁶⁰³ Invenery adds that the fact of the rulemaking's existence is insufficient to put interconnection customers on notice of potential reforms, given that any aspect of the NOPR could be modified in the final rule and be subject to variations in compliance filings.¹⁶⁰⁴ AES states that it does not oppose requiring interconnection customers to demonstrate site control and meet commercial readiness criteria but recommends that at least six months be given for compliance.¹⁶⁰⁵

(g) Alternatives

846. Shell argues that the final rule should allow an opt-out provision for the transition process under which transmission providers can demonstrate their existing processes' efficiencies by detailing their prior performance on certain measures, such as the average duration of each interconnection study and the average length of time from submission of an interconnection request to execution of an LGIA or filing of an unexecuted LGIA.¹⁶⁰⁶

847. In cases where the transition process is slow due to the sheer scale of

change, Illinois Commission calls for an accelerated process for interconnection requests that allow states to ensure reliability and meet statutory obligations and public policy objectives.¹⁶⁰⁷ Illinois Commission adds that such a process could be accomplished in a narrowly tailored manner and would be more efficient than allowing RTOs/ISOs an extended period to clear out prior interconnection queue backlogs.

848. CREA and NewSun propose, and SEIA supports, a transitional cluster study process for transmission providers facing an otherwise unmanageable volume of interconnection requests.¹⁶⁰⁸ CREA and NewSun assert that such a process would expedite interconnection study, eliminate excessive deposits and penalties, permit withdrawals without penalty if no burden is imposed on other interconnection customers, respect queue positions and associated investment expectations of queued interconnection requests, and avoid "years of bottlenecks and market distorting problems" associated with solutions based on readiness requirements.¹⁶⁰⁹ CREA and NewSun state that this proposed process draws on Bonneville, CAISO, and MISO's current practices as examples and would take an estimated 460 days to complete, incorporating four milestones with increasing deposits and two off-ramps (or decision points).¹⁶¹⁰

849. CREA and NewSun further propose to respect queue positions by providing a separate cluster study for existing interconnection customers that have advanced to the system impact study stage and having interconnection requests retain queue position even as they are studied in a cluster.¹⁶¹¹ CREA and NewSun also propose to allow interconnection customers to trade queue positions.¹⁶¹²

(h) Tariff Language

850. Southern notes that under proposed section 5.1.1.2(2) of the *pro forma* LGIP, the true-up of actual construction costs must be completed within 30 days of a generating facility achieving commercial operation, which appears to conflict with the true-up provisions in *pro forma* LGIA article 12.2 (Final Invoice), which, Southern states, provides that the true-up is due within six months.¹⁶¹³ Southern requests that the Commission make

¹⁵⁹⁰ Ameren Initial Comments at 19.

¹⁵⁹¹ Idaho Power Initial Comments at 9.

¹⁵⁹² EEI Reply Comments at 10.

¹⁵⁹³ AEE Initial Comments at 26; AES Initial Comments at 20; CREA and NewSun Initial Comments at 79; EDF Renewables Initial Comments at 8; Ørsted Initial Comments at 14; Pine Gate Initial Comments at 36; SEIA Initial Comments at 37.

¹⁵⁹⁴ CREA and NewSun Initial Comments at 79; Ørsted Initial Comments at 14; Pine Gate Initial Comments at 36.

¹⁵⁹⁵ Ørsted Initial Comments at 14.

¹⁵⁹⁶ AES Initial Comments at 20.

¹⁵⁹⁷ EDF Renewables Initial Comments at 8.

¹⁵⁹⁸ SEIA Initial Comments at 37.

¹⁵⁹⁹ NRECA Initial Comments at 32; PPL Initial Comments at 18.

¹⁶⁰⁰ Note that the proposed deadline for transmission providers to submit a compliance filing is within 180 calendar days of the effective date of the final rule. The proposed deadline for interconnection customers to meet the requirements for transitional serial study or transitional cluster study is 60 calendar days after the Commission-approved effective date of a transmission provider's filing in compliance with this final rule.

¹⁶⁰¹ NRECA Initial Comments at 32.

¹⁶⁰² PPL Initial Comments at 18.

¹⁶⁰³ AES Initial Comments at 20; CREA and NewSun Initial Comments at 79; Invenery Initial Comments at 37–38.

¹⁶⁰⁴ Invenery Initial Comments at 37.

¹⁶⁰⁵ AES Initial Comments at 20.

¹⁶⁰⁶ Shell Initial Comments at 37.

¹⁶⁰⁷ Illinois Commission Initial Comments at 7–8.

¹⁶⁰⁸ SEIA Reply Comments at 12.

¹⁶⁰⁹ CREA and NewSun Initial Comments at 82, Ex. A at 4.

¹⁶¹⁰ *Id.*, Ex. A at 3.

¹⁶¹¹ *Id.*, Ex. A at 2.

¹⁶¹² *Id.*, Ex., at 2–3.

¹⁶¹³ Southern Initial Comments at 35.

these provisions consistent at six months.

iv. Requests for Flexibility and Clarification

851. Several commenters argue that a one-size-fits-all transition plan is not appropriate, given the diversity of processes currently used by transmission providers and the varying volumes of interconnection requests in their interconnection queues.¹⁶¹⁴ For instance, Duke Southeast Utilities references the Commission's recognition that transmission providers that already have a Commission-approved LGIP and LGIA based on a first-ready, first-served cluster study process may not need another transition process. Duke adds that requiring a second transition process would likely add confusion and potentially result in waiver requests filed with the Commission.¹⁶¹⁵ ISO-NE states that New England does not currently suffer interconnection queue backlogs to the same extent as other regions, and transition provisions could have a significant impact on interconnection requests that are currently proceeding through the existing interconnection process.¹⁶¹⁶ WAPA claims that it needs sufficient flexibility to develop new programs within its existing appropriations (or to seek additional appropriations or spending authority) and to accommodate Federal contracting timelines (because it hires contractors to conduct facilities studies).¹⁶¹⁷

852. CAISO, Duke Southeast Utilities, and Invenery call on the Commission to permit transmission providers in regions that already use a first-ready, first-served cluster study process to minimize or omit a transition process.¹⁶¹⁸ CAISO recommends that transmission providers be permitted to propose just and reasonable effective

dates for each reform.¹⁶¹⁹ CAISO adds that it anticipates that most reforms should be effective with the beginning of the next cluster study after a compliance filing is approved, but some reforms could be implemented for existing interconnection requests in the queue, especially for interconnection customers that may not have executed an LGIA. Conversely, Tri-State states that a transition period will be necessary, even for those transmission providers already employing a first-ready, first-served cluster study process, due to changes beyond the overarching structure of the interconnection queue, such as a requirement for 100% site control.¹⁶²⁰

853. Several commenters ask the Commission to let transmission providers establish their own transition plans.¹⁶²¹ MISO notes that this previously occurred after the 2008 interconnection queue technical conference, where transmission providers were able to propose their own transition plan in adopting a first-ready, first-served model.¹⁶²² Ameren, National Grid, and NEPOOL call for RTOs/ISOs, in particular, to be allowed flexibility to develop a transition process with input from stakeholders.¹⁶²³ Avangrid notes that determining an equitable and achievable transition plan was among the most challenging aspects of the stakeholder process that led to PJM's recent interconnection queue reform filing and asserts that other regions should have the chance for similar deliberations.¹⁶²⁴ NYTOs argue that transmission providers should be allowed to propose: (1) setting an effective date for new interconnection requests that will be subject to the new cluster study process; (2) establishing an approach for the existing interconnection queue to be seen through to completion; and (3) determining a high-level process, including a high-level time frame for updating tariffs, if the proposed reforms are approved.¹⁶²⁵

854. Several commenters request that the Commission clarify how the NOPR's proposed transition process relates to PJM's transition process accepted as

part of its recent interconnection queue reforms.¹⁶²⁶ OPSI requests that the final rule not extend any transition process beyond what PJM proposed.¹⁶²⁷ Indicated PJM TOs request that the Commission allow PJM to implement its carefully negotiated transition process to a first-ready, first-served cluster study process.¹⁶²⁸ PJM suggests that the Commission hold in abeyance any compliance filing obligations in this proceeding until PJM has completed its proposed transition process.¹⁶²⁹ PJM argues that this would be in keeping with the Commission's statement that it will review any filings that result from transmission provider interconnection queue reform efforts "based on the record before us in those proceedings and not based on whether they comply with the proposed reforms in this NOPR." ¹⁶³⁰ PJM also asserts that, given the size of its interconnection queue backlog, allowing interconnection customers the option of a transitional serial study process will delay implementation of PJM's cluster study process by several years and create uncertainty regarding that process.¹⁶³¹ PJM emphasizes that elsewhere in the NOPR, the Commission acknowledges the importance of allowing transmission providers to clear their interconnection queue backlogs quickly.¹⁶³²

c. Commission Determination

855. We adopt the NOPR proposal to modify section 5 of the *pro forma* LGIP to establish a transition process for moving to the first-ready, first-served cluster study process adopted in this final rule from the existing first-come, first-served serial study process. Specifically, we adopt the NOPR proposal to require transmission providers to offer existing interconnection customers up to three transition options, depending on which phase of the serial study process their interconnection requests are in: (1) a transitional serial study comprised of a facilities study (*i.e.*, a transitional serial interconnection facilities study), (2) a transitional cluster study comprised of a clustered system impact study and individual facilities studies, or (3) withdrawal from the interconnection

¹⁶¹⁴ Ameren Initial Comments at 19; Avangrid Initial Comments at 8; Bonneville Initial Comments at 13; CAISO Initial Comments at 24; Duke Southeast Utilities Initial Comments at 11; EEI Initial Comments at 10; Indicated PJM TOs Reply Comments at 42; Invenery Initial Comments at 39; ISO-NE Initial Comments at 33; MISO Initial Comments at 70; NARUC Initial Comments at 10–11; National Grid Initial Comments at 28; NEPOOL Initial Comments at 14; NYISO Initial Comments at 12; NYTOs Initial Comments at 21; WAPA Initial Comments at 8–9; *see also* Invenery Initial Comments at 41 (asserting that, while many of the NOPR proposals should be prospective only, affected systems reform should apply immediately to all pending requests and active studies).

¹⁶¹⁵ Duke Southeast Utilities Initial Comments at 11.

¹⁶¹⁶ ISO-NE Initial Comments at 33–34.

¹⁶¹⁷ WAPA Initial Comments at 8–9.

¹⁶¹⁸ CAISO Initial Comments at 25.

¹⁶¹⁹ *Id.*; Duke Southeast Utilities Initial Comments at 11; Invenery Initial Comments at 39.

¹⁶¹⁹ CAISO Initial Comments at 25.

¹⁶²⁰ Tri-State Initial Comments at 17.

¹⁶²¹ Ameren Initial Comments at 19; Avangrid Initial Comments at 37; MISO Initial Comments at 70; National Grid Initial Comments at 28–29; NEPOOL Initial Comments at 14; NESCOE Reply Comments at 10; NYTOs Initial Comments at 21–22.

¹⁶²² MISO Initial Comments at 70.

¹⁶²³ Ameren Initial Comments at 19; National Grid Initial Comments at 28; NEPOOL Initial Comments at 14.

¹⁶²⁴ Avangrid Initial Comments at 8, 36–37.

¹⁶²⁵ NYTOs Initial Comments at 21–22.

¹⁶²⁶ Indicated PJM TOs Initial Comments at 34; OPSI Initial Comments at 7; Pennsylvania Commission Initial Comments at 15; PJM Initial Comments at 42; *see also* PJM Interconnection, L.L.C., 181 FERC ¶ 61,162 at PP 60–69.

¹⁶²⁷ OPSI Initial Comments at 7.

¹⁶²⁸ Indicated PJM TOs Initial Comments at 34.

¹⁶²⁹ PJM Initial Comments at 42.

¹⁶³⁰ *Id.* at 42–43 (citing NOPR, 179 FERC ¶ 61,194 at P 6).

¹⁶³¹ *Id.* at 43.

¹⁶³² PJM Reply Comments at 8–9.

queue without penalty. We also adopt definitions for the reports issued in association with options (1) and (2), respectively (*i.e.*, a transitional serial interconnection facilities study report and a transitional cluster study report). As discussed below, regarding eligibility for the transitional serial study, we modify the NOPR proposal to require transmission providers to offer the transitional serial study option to interconnection customers that have been tendered a facilities study agreement, even if they have not yet executed that agreement, as of 30 calendar days after the filing date of the transmission provider's initial filing to comply with this final rule. Similarly, regarding eligibility for the transitional cluster study, we modify the NOPR proposal to require transmission providers to offer the transitional cluster study option to interconnection customers with an assigned queue position as of 30 calendar days after the filing date of the transmission provider's initial filing to comply with this final rule. We also adopt the NOPR proposals for transition process deposits, withdrawal penalties, and deadlines. We decline to adopt the proposal to impose a commercial readiness demonstration requirement and adopt, with modification, the NOPR proposal for site control requirements.

856. We concur with commenters that, given current interconnection queue backlogs in multiple regions, it is essential that the Commission craft a transition process. Doing so will give interconnection customers, along with other market participants, time to adjust to new processes and requirements. We note that many responsive commenters support the proposed three options and, in particular, support providing interconnection customers at the facilities study stage the option for a transitional serial study.¹⁶³³ We concur with NRECA that the NOPR's proposed transition process will create an efficient way to prioritize and process interconnection requests, based on how far they have advanced through the interconnection process and their level of commercial readiness. We further find that the transition process, as adopted herein, appropriately balances the need to move expeditiously to the new cluster study process with the need to respect the investments and expectations of interconnection

customers at an advanced stage in the existing interconnection process.¹⁶³⁴

857. We disagree with commenters that contend that the NOPR's proposed transition process is unnecessary, should be optional, or poses an undue risk of delay. As stated in the NOPR and affirmed in our findings in section II of this final rule, we believe that interconnection queue backlogs exist throughout the country, in part, because the *pro forma* LGIP creates an incentive for interconnection customers to submit multiple interconnection requests for a given potential generating facility and remain in the interconnection queue to determine which of those interconnection requests has the lowest costs to interconnect.¹⁶³⁵ Given this, simply moving to the new cluster study process, as CREA and NewSun suggest, risks creating large initial clusters, which may prevent interconnection customers from being able to interconnect in a reliable, efficient, transparent, and timely manner. Similarly, if transmission providers only used serial study processes to transition, it could put existing interconnection requests at greater risk of cascading withdrawals that would delay the adoption of standard cluster study processes. With respect to concerns that a transition process could introduce delays, we note that the serial study portion of the transition process is limited to 90 calendar days, after which point the transitional cluster study commences.

858. We decline requests to modify the proposed transitional cluster study process to give higher-queued interconnection requests a higher queue position than lower-queued interconnection requests. As stated above, to address the interconnection queue backlogs that currently exist, it is necessary to move the bulk of existing interconnection requests to the cluster study process, and as such, interconnection requests studied in the same cluster have equal queue priority to avoid undue discrimination.

859. We also decline calls to modify the NOPR proposal to require that: (1) interconnection customers electing the transitional serial study must provide a deposit equal to 100% of the interconnection facility and network upgrade costs allocated to the interconnection customer in the system impact study; and (2) interconnection customers electing the transitional cluster study must provide a deposit equal to \$5 million. As noted earlier, the

transition process is anticipated to involve more interconnection customers than standard annual clusters (due to existing interconnection queue backlogs), which greatly increases the risk of late-stage withdrawals. Adopting deposit requirements for the transitional studies higher than those adopted for the cluster study process will help to ensure that the transitional process is used by interconnection customers that intend to proceed with their proposed generating facilities. In response to arguments that the proposed deposit amounts are arbitrary and/or excessive, we note that they are based on expected costs to the extent practicable and that only a portion of these deposits are ultimately at-risk. That is, the withdrawal penalty is set at nine times the study cost, as discussed below, with the remainder of deposits to be refunded.¹⁶³⁶ We also note that existing interconnection customers that are currently in an interconnection queue can opt to withdraw their interconnection requests without penalty and wait for the first standard cluster study with associated lower deposit requirements. Finally, with respect to EDF Renewable's claim that the transitional serial study deposit conflicts with the Commission's intentions in Order No. 2003, we find that the heightened need to avoid late-stage withdrawals during the transition process—a need that the Commission could not have anticipated in Order No. 2003—warrants the transitional use of this requirement for the transitional serial study.

860. We adopt the NOPR proposal that the transitional study withdrawal penalty should equal nine times the study cost. The withdrawal penalty plays an important role in deterring speculative interconnection requests in both the standard cluster study and the transition process. We disagree with commenters that call for a lower penalty to apply during the transition process, given that the risk of withdrawals is heightened during the transition process. With respect to Ørsted's contention that offshore wind developers will likely withdraw interconnection requests solely due to circumstances beyond their control, we note that, regardless of the cause, a withdrawal may cause harm to other interconnection customers in the transition process. Thus, we find it appropriate to impose penalties on

¹⁶³³ Clean Energy Associations Initial Comments at 42–43; Consumers Energy Initial Comments at 5; ENGIE Initial Comments at 7; Longroad Energy Reply Comments at 16; NARUC Initial Comments at 10; NextEra Initial Comments at 28; Ørsted Initial Comments at 13; Pine Gate Initial Comments at 35–36.

¹⁶³⁴ See *e.g.*, *Pub. Serv. Co. of Colo.*, 169 FERC ¶ 61,182.

¹⁶³⁵ NOPR, 179 FERC ¶ 61,194 at PP 24–35.

¹⁶³⁶ See *supra* section III.A.7.a. Also, as one indicator of study costs, NV Energy states that, on average, it spends between \$80,000 and \$100,000 between the clustered system impact study and facilities studies. See *supra* section III.A.6.a.

those that choose to withdraw notwithstanding that withdrawal may at times be due to circumstances beyond the interconnection customer's control. Interconnection customers will bear the risk of withdrawal penalties and consider that risk in deciding whether to elect to join a transition process.

861. We recognize that some transmission providers have existing cluster studies in progress and others have Commission-approved transition plans in progress. We emphasize that the provisions of this final rule are not intended to interfere with the timely completion of those in-progress cluster studies and transition processes. With respect to concerns about duplicative transition processes, we clarify that transmission providers that have already adopted a cluster study process or are currently undergoing a transition to a cluster study process will not be required to implement a new transition process.

862. We are not persuaded by commenters' requests to permit transmission providers to establish their own transition plans. Transmission providers would likely require months-to-years to develop and execute their own transition plans, given the need for stakeholder dialogue and internal approval, followed by Commission review and approval. We find that the benefits of moving forward with an efficient, standardized transition process outweigh the potential benefits of relying on tailor-made transition processes developed by each transmission provider and its stakeholders.

863. Likewise, we decline to adopt any of the alternatives put forth by commenters. We are not persuaded by Shell's proposal to allow transmission providers to "opt-out" of the transition process based on their prior performance. We view the existing serial study process as inherently more prone to cascading withdrawals and delays, and thus ill-suited to a transition period intended to set the stage for a standard cluster study process. We view the Illinois Commission's proposal for an accelerated process (for interconnection requests related to states' objectives) in regions that may propose a lengthier transition process timeline, as more appropriately addressed by transmission providers in individual compliance filings. And, given the need for even more stringent requirements in a transition process discussed earlier, we view CREA and NewSun's proposal to use progressively increasing deposits, during a transition process, as inherently ill-suited to

address major interconnection queue backlogs.

864. Finally, we decline calls to modify the NOPR proposal to require interconnection customers to meet transitional serial study eligibility requirements in 60 days after the Commission-approved effective date of a transmission provider's filing in compliance with this final rule. Given that we do not adopt the proposed commercial readiness demonstration requirements, we find that the 60-calendar day deadline provides interconnection customers with sufficient time to adjust to the new requirements, *i.e.*, to choose a transition option and, depending on the option chosen, demonstrate site control and provide a deposit. Furthermore, we concur with NRECA that this period will be augmented, in practice, by the 90-calendar day period afforded to transmission providers to submit their compliance filings.¹⁶³⁷

i. Transition Process Eligibility and Exceptions

865. As stated above, we modify the NOPR proposal regarding the eligibility for the transitional serial study and transitional cluster study.¹⁶³⁸ Any interconnection customer that has been tendered a facilities study agreement as of 30 calendar days after the filing date of the transmission provider's initial filing to comply with this final rule (even if it has not yet executed that agreement) may opt to proceed with a transitional serial study or withdraw its interconnection request without penalty. Transmission providers are required to tender an LGIA, pursuant to the requirements of section 11 of the *pro forma* LGIP, to any interconnection customer that has received a final facilities study report before the transmission provider commences transitional serial studies. Any interconnection customer that has an assigned queue position as of 30 calendar days after the filing date of the transmission provider's initial filing to comply with this final rule may opt to proceed with a transitional cluster study or withdraw its interconnection request without penalty.

866. We find that an earlier eligibility cut-off for the transitional studies will allow the transitional studies to begin sooner, which in turn, will allow transmission providers and interconnection customers to benefit from the Commission's new cluster study process sooner. Further, we consider this modification appropriate

because interconnection customers will have 120 calendar days after the publication of this final rule in the **Federal Register** to achieve eligibility for the transition process (90 calendar days for transmission providers to submit compliance filings, plus the 30-calendar day eligibility cut-off).

867. Additionally, we modify the NOPR proposal to require the transmission provider to tender the appropriate transitional study agreements (serial and/or cluster as applicable) to eligible interconnection customers no later than the Commission-approved effective date of the transmission provider's compliance filing with this final rule. We find that this requirement will help ensure that interconnection customers are informed about their eligibility for the transitional studies (including the associated requirements and deadlines) in a timely manner.

868. Transmission providers are not required to tender transitional study agreements to interconnection customers that submit an interconnection request after the 30-calendar day eligibility cut-off described above. Interconnection customers that submit an interconnection request after the 30-calendar day eligibility cut-off will be required to pay for any studies conducted by the transmission provider under its existing tariff (as required by *pro forma* LGIP section 13.3), and their interconnection requests will not be allowed to enter the transition process, although they may enter their interconnection requests in the transmission provider's first standard cluster study, provided that they meet the new requirements for interconnection requests by the close of the first cluster request window.

869. We are persuaded by commenters' suggestion to require transmission providers to offer the transitional serial study option to interconnection customers that have been tendered a facilities study agreement, even if they have not yet executed that agreement, as of 30 calendar days after the filing date of the transmission provider's initial filing to comply with this final rule, and we modify the NOPR proposal accordingly. We find that interconnection requests at this point in the interconnection process are at an equivalent point as those interconnection requests for which interconnection customers have executed a facilities study agreement, as in both cases, the transmission provider has completed the system impact study but has not yet commenced the facilities study. We are not persuaded by commenters to extend the option for

¹⁶³⁷ See *infra* section IV.C.

¹⁶³⁸ See *supra* section III.A.7.c.

transitional serial study to interconnection requests at earlier stages in the interconnection process, as such modifications may undermine the ability of the proposed reforms to accelerate interconnection queue processing and could delay the transition to the new, more efficient cluster study process. We disagree with the proposal to exempt from the transition process interconnection requests that appear, based on a feasibility study, to require limited or no network upgrades. The results of this feasibility study may no longer be accurate depending on which higher-queued interconnection customers remain in the interconnection queue after the transition date.

ii. Commercial Readiness and Site Control

870. We decline to adopt the proposed commercial readiness demonstration options for transitional studies for the same reasons that we are not adopting those options for cluster studies going forward, as discussed above. We adopt with modification the NOPR's proposed site control requirements. Specifically, we require interconnection customers electing a transitional study, regardless of whether they select the transitional serial study or the transitional cluster study, to demonstrate 100% site control for their proposed generating facilities. We find that such a requirement will provide further assurance that such interconnection customers are ready to proceed to construction. We modify the NOPR proposal by declining to require that interconnection customers that choose to proceed with a transitional serial interconnection facilities study must also demonstrate 100% site control for any interconnection customer's interconnection facilities because such a requirement would be overly burdensome for interconnection customers, in addition to the other requirements we are adopting elsewhere in this final rule. Further, we find that this requirement is not needed to ensure that such interconnection customers are ready to proceed to construction.

iii. Tariff Language

871. We agree with Southern's recommendation to align timelines for truing up construction costs in the proposed *pro forma* LGIP section 5.1.1.2(2) and current, unmodified by this final rule, *pro forma* LGIA article 12.2 (Final Invoice) by making these provisions consistent at six months, and we modify the NOPR proposal accordingly. We agree with Southern that consistent timelines for truing up

construction costs will provide clarity and certainty for interconnection customers.

B. Reforms To Increase the Speed of Interconnection Queue Processing

1. Elimination of the Reasonable Efforts Standard

a. Need for Reform and NOPR Proposal

872. As the Commission explained in the NOPR, the *pro forma* LGIP does not require transmission providers to meet deadlines for conducting interconnection studies.¹⁶³⁹ Rather, transmission providers are only required to use "reasonable efforts" to complete interconnection studies on time.¹⁶⁴⁰ "Reasonable efforts" are defined as "actions that are timely and consistent with Good Utility Practice and are substantially equivalent to those a Party would use to protect its own interests."¹⁶⁴¹ There are no explicit consequences in the *pro forma* LGIP for transmission providers that fail to meet their study deadlines.

873. In the NOPR, the Commission preliminarily found that the use of the reasonable efforts standard for transmission providers to complete interconnection studies resulted in Commission-jurisdictional rates that were unjust and unreasonable because: (1) the timely provision of interconnection service was critical to maintaining just and reasonable rates; (2) the data collected pursuant to Order No. 845 demonstrated that the failure to timely complete interconnection studies was a significant nationwide problem, even for transmission providers that had implemented other interconnection reforms; and (3) the reasonable efforts standard did not provide a meaningful incentive for transmission providers to complete their interconnection studies within the deadlines established in their tariffs.¹⁶⁴²

874. The Commission proposed to revise the *pro forma* LGIP to eliminate the reasonable efforts standard for transmission providers completing interconnection studies and instead impose firm study deadlines and establish penalties that would apply when transmission providers fail to meet study deadlines.¹⁶⁴³ Specifically, the Commission proposed to require

transmission providers that do not complete a cluster study, cluster restudy, facilities study, or affected system study by the deadline specified in the *pro forma* LGIP to pay a penalty of \$500 per each business day that the study is late, except in situations where *force majeure* applies. The Commission proposed that those penalties would be distributed to the delayed interconnection customers on a pro rata basis to offset their study costs. Consistent with other penalties, the Commission proposed that such penalties would not be recoverable in transmission rates.¹⁶⁴⁴

875. The Commission also proposed to cap penalties at 100% of the total study deposit received for the late study to provide a safeguard against overly large penalties that may be considered punitive.¹⁶⁴⁵ The Commission further proposed that no financial penalties on transmission providers that fail to meet study deadlines would be assessed until one cluster study cycle (that is not a transitional study cycle) after the Commission-approved effective date for implementing the reforms proposed in the NOPR. Additionally, the Commission proposed a 10-business day grace period such that no penalties would be assessed for a study that is delayed by 10 business days or less; for studies that are delayed by more than 10 business days, the penalty would be calculated based on the first business day the study was late. Further, the Commission proposed to permit the transmission provider to extend the deadline for a particular study by 30 business days by mutual agreement of the transmission provider and all interconnection customers in the relevant study. Finally, the Commission proposed to require transmission providers to post to their OASIS or a public website on a quarterly basis the total amount of such penalties from the previous quarter and the highest amount of such penalties paid to a single interconnection request from the previous quarter.

876. The Commission acknowledged that the application of penalties for late interconnection studies in the context of RTOs/ISOs may raise several unique issues.¹⁶⁴⁶ However, consistent with the Commission's findings in Order No. 890,¹⁶⁴⁷ the Commission explained that

¹⁶³⁹ NOPR, 179 FERC ¶ 61,194 at P 28.

¹⁶⁴⁰ See *pro forma* LGIP sections 2.2, 6.3, 7.4, 8.3.

¹⁶⁴¹ Order No. 2003, 104 FERC ¶ 61,103 at P 67; *pro forma* LGIP section 1.

¹⁶⁴² NOPR, 179 FERC ¶ 61,194 at PP 165–167 (citing May Joint Task Force Tr. 89:6–25 (Thad LeVar) (encouraging the Commission to examine "appropriate consequences to the transmission providers when they [do not] comply with the tariffs," including by missing study deadlines)).

¹⁶⁴³ *Id.* P 168.

¹⁶⁴⁴ *Id.* P 169.

¹⁶⁴⁵ *Id.* P 170.

¹⁶⁴⁶ *Id.* P 171.

¹⁶⁴⁷ *Preventing Undue Discrimination & Preference in Transmission Serv.*, Order No. 890, 118 FERC ¶ 61,119, 72 FR 12226, *order on reh'g*, Order No. 890–A, 121 FERC ¶ 61,297 (2007), *order on reh'g*, Order No. 890–B, 123 FERC ¶ 61,299 (2008), *order on reh'g*, Order No. 890–C, 126 FERC

penalties are appropriate in certain circumstances to incentivize compliance with tariff deadlines, notwithstanding the RTO's/ISO's status as a not-for-profit entity. To ensure that RTOs/ISOs would be able to pay any such penalties, the Commission proposed to require RTOs/ISOs to propose tariff provisions that would require the RTO/ISO to submit requests to recover the costs of specific interconnection study penalties under FPA section 205. The Commission explained that, similar to the ability of RTOs/ISOs to seek to directly assign monetary penalties for violations of reliability standards to other responsible entities, RTOs/ISOs could include a provision that the RTO/ISO may make an FPA section 205 filing seeking to allocate such penalties to the appropriate transmission owner that is responsible for, or contributed to, the delay.¹⁶⁴⁸ However, the Commission sought comment on whether there was a more appropriate method for assigning such penalties in RTOs/ISOs. More generally, the Commission sought comment on whether penalties would effectively incentivize more timely completion of interconnection studies in RTOs/ISOs, and/or whether monetary penalties could have adverse consequences (e.g., compromising accuracy or increasing waiver requests as transmission providers strive to meet deadlines).

877. Additionally, the Commission sought comment on: (1) the proposed penalty structure, including whether the penalty amount for a cluster study should be \$500 per business day or whether an approach that accounts for the number of interconnection customers affected, such as \$100 per business day per customer in the delayed study, would be more appropriate; (2) how and when the Commission should require transmission providers to communicate to interconnection customers the status of studies that may be delayed; (3) whether to include exceptions to the penalty other than *force majeure*, and if so, what those exceptions should be; and (4) whether Commission staff should issue periodic reports summarizing the status of transmission providers' interconnection queues and timeliness of interconnection studies based on information collected through existing reporting requirements, and whether this periodic report should be in addition to or a substitute for the

proposed monetary penalties discussed above.¹⁶⁴⁹

b. Comments

i. Comments in Support

878. Many commenters support the NOPR proposal to eliminate the reasonable efforts standard and establish firm interconnection study deadlines by imposing financial penalties when transmission providers fail to meet study deadlines.¹⁶⁵⁰ Multiple commenters explain that interconnection studies are often substantially delayed, which creates uncertainty and risk in the process of bringing new generating facilities online,¹⁶⁵¹ and ultimately results in an unreasonable market barrier for new generating facilities.¹⁶⁵² NARUC contends that the timely provision of interconnection service is critical to maintaining just and reasonable rates.¹⁶⁵³

879. Some commenters argue that the interconnection queue backlogs indicate that the reasonable efforts standard has not been effective in ensuring timely access to the transmission system for new generating facilities¹⁶⁵⁴ nor in

imposing consequences when transmission providers fail to meet study deadlines.¹⁶⁵⁵ Some commenters argue that the Order No. 845 reporting data supports the conclusion that the reasonable efforts standard has failed to ensure transmission providers complete interconnection studies on time.¹⁶⁵⁶ AEE argues that the broad definition of "reasonable efforts" presents a high bar to prove that interconnection study delays were unreasonable.¹⁶⁵⁷

880. Some commenters assert that the reasonable efforts standard results in an insufficient allocation of transmission provider resources to process the interconnection queue¹⁶⁵⁸ and that the risk of penalties will provide a needed incentive for transmission providers to complete interconnection studies on time.¹⁶⁵⁹ Some commenters argue that penalizing transmission providers is appropriate because they control the staffing and study process and are in the best position to ensure that studies are timely and accurate.¹⁶⁶⁰ CREA and NewSun assert that the volume of interconnection requests is unlikely to decrease, so transmission providers need to ensure that they hire adequate staff to meet this need.¹⁶⁶¹ Google cautions against taking "implicit threats of reduced cooperation or assertions that transmission providers cannot do any better" seriously, noting that any major reform to interconnection processes will entail growing pains.¹⁶⁶²

¹⁶⁴⁹ *Id.* P 173.

¹⁶⁵⁰ ACE-NY Initial Comments at 11–12; ACE-NY Reply Comments at 2; ACORE Initial Comments at 4; Affected Interconnection Customers Initial Comments at 23–25; CESA Initial Comments at 11; Clean Energy Associations Initial Comments at 43; Clean Energy States Initial Comments at 9; Consumers Energy Initial Comments at 5; CREA and NewSun Initial Comments at 83; CREA and NewSun Reply Comments at 56; Cypress Creek Initial Comments at 23; ELCON Initial Comments at 7; EPSA Initial Comments at 10–11; Evergreen Action Initial Comments at 2; Fervo Energy Initial Comments at 5; Fervo Energy Reply Comments at 7; Google Initial Comments at 5; Google Reply Comments at 3, 5; Illinois Commission Initial Comments at 9; Individual Signatories Initial Comments at 1; Interwest Initial Comments at 8; Invenery Initial Comments at 29–30; Iowa Commission Initial Comments at 5; Navajo Utility Initial Comments at 12; New Jersey Commission Initial Comments at 13–14; New Jersey Commission Reply Comments at 1; Northwest and Intermountain Initial Comments at 14; Ørsted Initial Comments at 14; Pine Gate Initial Comments at 38; Public Interest Organizations Initial Comments at 33; SEIA Initial Comments at 30; TAPS Initial Comments at 3; UMPA Initial Comments at 6–7.

¹⁶⁵¹ ELCON Initial Comments at 7; EPSA Initial Comments at 11; Fervo Energy Initial Comments at 5; NARUC Initial Comments at 13–14; Navajo Utility Initial Comments at 12; SEIA Initial Comments at 33.

¹⁶⁵² Pennsylvania Commission Initial Comments at 4; *see also* AEE Reply Comments at 21, 30; Fervo Energy Reply Comments at 7; Public Interest Organizations Initial Comments at 33 (explaining that the slow pace of interconnection has discouraged incorporation of new generation and stunted the transition of the transmission system).

¹⁶⁵³ NARUC Initial Comments at 13–14.

¹⁶⁵⁴ AEE Reply Comments at 20–21; Clean Energy Associations Initial Comments at 43; CREA and NewSun Initial Comments at 84; Iowa Commission Initial Comments at 5; New Jersey Commission Reply Comments at 3; Public Interest Organizations Initial Comments at 34.

¹⁶⁵⁵ ACE-NY Reply Comments at 3; Affected Interconnection Customers Initial Comments at 23; CREA and NewSun Initial Comments at 83; EPSA Initial Comments at 10; Fervo Energy Initial Comments at 5; Pennsylvania Commission Initial Comments at 2.

¹⁶⁵⁶ ACE-NY Initial Comments at 11–12; AEE Reply Comments at 18; Affected Interconnection Customers Initial Comments at 23–24; Pennsylvania Commission Initial Comments at 2–3; UMPA Initial Comments at 6–7.

¹⁶⁵⁷ AEE Initial Comments at 28.

¹⁶⁵⁸ ELCON Initial Comments at 7; Fervo Energy Initial Comments at 5; Invenery Initial Comments at 29–30; Northwest and Intermountain Initial Comments at 14; *see also* Clean Energy Associations Initial Comments at 43–44; NARUC Initial Comments at 14; SEIA Initial Comments at 33.

¹⁶⁵⁹ ACE-NY Initial Comments at 12; ACE-NY Reply Comments at 3; ELCON Initial Comments at 7; EPSA Initial Comments at 11; Evergreen Action Initial Comments at 2–3; Fervo Energy Initial Comments at 5; Google Initial Comments at 16; Individual Signatories Initial Comments at 1; New Jersey Commission Reply Comments at 2; Northwest and Intermountain Initial Comments at 14; Pine Gate Initial Comments at 38; Public Interest Organizations Initial Comments at 34; SEIA Initial Comments at 33; TAPS Initial Comments at 3.

¹⁶⁶⁰ Invenery Initial Comments at 30; SEIA Initial Comments at 32; *see also* Iowa Commission Initial Comments at 5–6 ("RTOs/ISOs need to prioritize interconnection studies and need to hold their employees and/or outside entities responsible for delays").

¹⁶⁶¹ CREA and NewSun Reply Comments at 56.

¹⁶⁶² Google Reply Comments at 4.

¶ 61,228, *order on clarification*, Order No. 890–D, 129 FERC ¶ 61,126 (2009).

¹⁶⁴⁸ NOPR, 179 FERC ¶ 61,194 at P 172.

AEE argues that some transmission providers have improved their generator interconnection process, which underscores that it is feasible to hold all transmission providers to higher standards.¹⁶⁶³

881. Some commenters point out that the NOPR proposal resolves an imbalance between interconnection customers, which are held to strict deadlines, and transmission providers, which are currently not required to meet study deadlines.¹⁶⁶⁴ Some commenters assert that the proposed penalties complement the stricter financial and readiness requirements that the NOPR proposed to apply to interconnection customers¹⁶⁶⁵ or that the firm study deadlines and penalty structure are necessary to ensure that the other NOPR proposals are successful.¹⁶⁶⁶

882. Multiple commenters note that long interconnection delays have economic costs for consumers, so transmission providers should also face economic costs for failing to meet deadlines.¹⁶⁶⁷ Navajo Utility asserts that interconnection delays prevent it from using 100 MW of transmission rights that it was granted through settlement, which leaves it with an obligation to pay for transmission rights without the ability to use them.¹⁶⁶⁸

ii. Comments in Opposition

883. Many commenters, particularly transmission providers, oppose the NOPR proposal to eliminate the reasonable efforts standard and impose

financial penalties on transmission providers for late studies.¹⁶⁶⁹ Further, some commenters assert that the Commission cannot support a statutory finding under FPA section 206 to justify the NOPR proposal¹⁶⁷⁰ or that the NOPR proposal is not based on substantial evidence and fails to consider important aspects of the problem.¹⁶⁷¹

884. Many commenters argue that it is inequitable to penalize transmission providers for study delays because those delays are largely due to factors outside the transmission provider's control, including high volumes of speculative interconnection requests, a shortage of qualified engineers, delayed data from interconnection customers, affected system coordination, cascading restudies caused by withdrawals, and the increasing complexity of studies due to new types of generating facilities.¹⁶⁷² Some commenters contend that the record supports retaining the reasonable efforts standard because third-party

forces are common to most study delays.¹⁶⁷³

885. Some commenters argue that data from reports required by Order No. 845 does not support the NOPR proposal.¹⁶⁷⁴ AEP notes that the data referenced in the NOPR represents only one year and does not support the conclusion that transmission providers are intentionally slow in interconnection queue processing.¹⁶⁷⁵ MISO notes that its Order No. 845 reports show that the majority of delays are caused by the need to wait for affected systems studies.¹⁶⁷⁶ NYISO states that its August 2022 Order No. 845 report, and other recent RTO/ISO reports, detail the various drivers of delays, which are typically outside their control.¹⁶⁷⁷ NYISO argues that it would not be reasonable decision-making for the Commission to ignore these reports and draw an overly simplistic conclusion that the reasonable efforts standard is to blame for study delays. PG&E and Southern note that their Order No. 845 data indicates that they have no delayed studies.¹⁶⁷⁸

886. Conversely, AEE and Public Interest Organizations respond that commenters that claim that study delays are caused by factors beyond transmission providers' control fail to acknowledge the availability of potential solutions, such as increasing expenditures to attract and retain staff and policy and process improvements.¹⁶⁷⁹ ACE-NY asserts that, while other parties can cause delays, transmission providers are also responsible for delays.¹⁶⁸⁰ SEIA argues that interconnection request withdrawals are often similarly outside interconnection customers' control.¹⁶⁸¹ AEE contends that accepting high interconnection queue volumes as a legitimate cause for delays would amount to providing a permanent free pass to transmission providers to exceed study deadlines.¹⁶⁸²

887. Several commenters who oppose the NOPR proposal assert that transmission providers engage in good

¹⁶⁶³ AEE Reply Comments at 26.

¹⁶⁶⁴ ACE-NY Initial Comments at 12; CREA and NewSun Initial Comments at 83–84; ELCON Initial Comments at 8; Fervo Energy Reply Comments at 7–8; Pennsylvania Commission Initial Comments at 2–3; Public Interest Organizations Reply Comments at 10; SEIA Reply Comments at 13.

¹⁶⁶⁵ AEE Reply Comments at 19–21; APPA-LPPC Initial Comments at 21; Clean Energy Associations Initial Comments at 43.

¹⁶⁶⁶ ACE-NY Initial Comments at 12; EPSA Initial Comments at 11; Evergreen Action Initial Comments at 2–3; Fervo Energy Initial Comments at 5; Individual Signatories Initial Comments at 1; New Jersey Commission Reply Comments at 2; Pine Gate Initial Comments at 38; SEIA Initial Comments at 33.

¹⁶⁶⁷ AEE Reply Comments at 18, 30; Consumers Energy Initial Comments at 7 (explaining that interconnection delays could create additional costs to end-use customers because LSEs may invest in continued operation of existing assets set to retire while new generating facilities are delayed); Evergreen Action Initial Comments at 2; Interwest Initial Comments at 8; Iowa Commission Initial Comments at 5–6 (asserting that “[d]elayed studies result in denial of likely low-cost generation to consumers”); Navajo Utility Initial Comments at 12 (explaining that study delays postpone important generation, tax revenue, and construction jobs for Navajo Nation); Northwest and Intermountain Initial Comments at 14; Public Interest Organizations Reply Comments at 10; SEIA Initial Comments at 32; SEIA Reply Comments at 13.

¹⁶⁶⁸ Navajo Utility Initial Comments at 12.

¹⁶⁶⁹ AECI Initial Comments at 6; AEP Initial Comments at 25–29; Alliant Energy Initial Comments at 6; Ameren Initial Comments at 20–21; Avangrid Initial Comments at 9; Bonneville Initial Comments at 15; Dominion Initial Comments at 34; EEI Initial Comments at 14–15; Indicated PJM TOs Initial Comments at 5, 36; Longroad Energy Reply Comments at 14; MISO Initial Comments at 13, 71; MISO TOs Initial Comments at 14; NextEra Initial Comments at 6, 29–30; North Dakota Commission Initial Comments at 5; NYISO Initial Comments at 25–26; NYTOs Reply Comments at 2; Omaha Public Power Initial Comments at 11; OMS Initial Comments at 15; Pacific Northwest Utilities Initial Comments at 9; PacifiCorp Initial Comments at 32–34; PG&E Initial Comments at 3–5; PJM Initial Comments at 7, 55; PPL Initial Comments at 19; Puget Sound Initial Comments at 9; SDG&E Reply Comments at 1; Southern Initial Comments at 5; SPP Initial Comments at 11; Tri-State Initial Comments at 17–18; U.S. Chamber of Commerce Initial Comments at 9; Vermont Electric and Vermont Transco Initial Comments at 2; WAPA Initial Comments at 10; WIRES Initial Comments at 9–10; Xcel Initial Comments at 38.

¹⁶⁷⁰ Indicated PJM TOs Initial Comments at 38.

¹⁶⁷¹ Dominion Reply Comments at 20; MISO TOs Initial Comments at 23; NYISO Reply Comments at 4–5; PG&E Reply Comments at 2–3.

¹⁶⁷² AEP Initial Comments at 25–26; Ameren Initial Comments at 20; Avangrid Initial Comments at 9–10, 29; Dominion Reply Comments at 19; Indicated PJM TOs Reply Comments at 22–24; ISO-NE Initial Comments at 35–36; ISO/RTO Council Initial Comments at 3–4; MISO Initial Comments at 73–74; MISO TOs Initial Comments at 15–16, 23–24; National Grid Initial Comments at 30; NESCOE Reply Comments at 11–12; NRECA Initial Comments at 9, 33–34; NYISO Initial Comments at 26–27; OMS Initial Comments at 15; Pacific Northwest Utilities Initial Comments at 9–10; PacifiCorp Initial Comments at 32–35; PG&E Initial Comments at 7; PG&E Reply Comments at 3–4; Puget Sound Initial Comments at 9; SDG&E Reply Comments at 1; Southern Initial Comments at 5, 30; State Agencies Initial Comments at 12–14; Tri-State Initial Comments at 17–18; U.S. Chamber of Commerce Initial Comments at 10; WIRES Initial Comments at 9; Xcel Initial Comments at 38.

¹⁶⁷³ Eversource Initial Comments at 28; MISO TOs Reply Comments at 13; PacifiCorp Initial Comments at 33; Southern Initial Comments at 30; U.S. Chamber of Commerce Initial Comments at 10.

¹⁶⁷⁴ AEP Initial Comments at 25; MISO Initial Comments at 72.

¹⁶⁷⁵ AEP Initial Comments at 25–27.

¹⁶⁷⁶ MISO Initial Comments at 14, 72.

¹⁶⁷⁷ NYISO Initial Comments at 27–29.

¹⁶⁷⁸ PG&E Initial Comments at 4–6; Southern Initial Comments at 30–31.

¹⁶⁷⁹ AEE Reply Comments at 34–35; MISO TOs Initial Comments at 18; Public Interest Organizations Reply Comments at 2–4.

¹⁶⁸⁰ ACE-NY Reply Comments at 3.

¹⁶⁸¹ SEIA Reply Comments at 16.

¹⁶⁸² AEE Reply Comments at 27.

faith efforts to process the interconnection queue in a timely manner¹⁶⁸³ and that there is no evidence to the contrary.¹⁶⁸⁴ Commenters argue that transmission providers already have sufficient motivation to process the interconnection queue in a timely manner because: (1) their own interconnection requests are processed in the exact same manner as third parties; (2) they need to ensure an adequate amount of generation to meet load and reserve margin requirements; and (3) they have to file reports with the Commission and can face complaints or enforcement action for poor performance.¹⁶⁸⁵ Commenters assert that penalties will be ineffective in speeding interconnection queue processing time because the main causes of study delays will remain.¹⁶⁸⁶ MISO TOs contend that the Commission proposes to compound the problem of study delays by requiring transmission owners and providers to manage delays that are out of their control, while simultaneously proposing to require transmission providers to offer additional studies.¹⁶⁸⁷

888. NextEra argues that penalties will be counterproductive if not paired with constructive guidance to transmission providers on how to perform interconnection studies in a timelier manner because penalties could either divert resources away from interconnection studies and lead to

conflict about allocating penalties in RTOs/ISOs or be accepted as a cost of doing business.¹⁶⁸⁸

889. Indicated PJM TOs contest the NOPR's citation to testimony provided by Utah Public Service Commission Chairman Thad LeVar, noting that Chairman LeVar also acknowledged that best practices vary between RTO/ISO and non-RTO/ISO regions and that penalties do not always result in the best consequences.¹⁶⁸⁹

890. Some commenters argue that the NOPR proposal is an unsupported shift from recent precedent.¹⁶⁹⁰ Commenters note that the Commission expressly declined to impose penalties for study delays in Order No. 845 and argue that there is no change in circumstance or concrete evidence to justify reversal of that prior finding.¹⁶⁹¹

891. Commenters also note that, although the Commission based its penalty proposal on Order No. 890, there are significant differences.¹⁶⁹² First, commenters explain that the Order No. 890 penalties only apply when a transmission provider fails to meet multiple study deadlines, whereas the NOPR proposes to impose penalties each time a study deadline is missed.¹⁶⁹³ Second, commenters point out that the Order No. 890 penalty structure protects due process through an opportunity to present evidence that delays were outside the transmission provider's control or due to extenuating circumstances, whereas the NOPR proposal does not.¹⁶⁹⁴ Third, PacifiCorp explains that interconnection studies are more complex, numerous, and susceptible to delays than the transmission service studies at issue in Order No. 890.¹⁶⁹⁵ Affected Interconnection Customers argue that the Commission's comparison to Order No. 890's penalty structure for transmission service requests is misplaced because the size and scale of the current interconnection queue backlog is significantly different than transmission queues when Order No.

890 was issued.¹⁶⁹⁶ Similarly, Invenergy notes that the reference to transmission service requests is inapplicable because the interconnection process uses a cluster study.¹⁶⁹⁷

892. EEI and Eversource state that the NOPR proposal represents a departure from the good utility practice standard, which the Commission uses in many other contexts and is part of the definition of reasonable efforts.¹⁶⁹⁸ EEI and Eversource assert that the Commission has not adequately explained why reliance on good utility practice remains sufficient in other situations, but not for interconnection studies.

893. Commenters contend that firm study deadlines are not reasonable or feasible because interconnection studies are complex and each study is different in scope, size, and needed coordination.¹⁶⁹⁹ Some commenters also note that the current deadlines were established almost 20 years ago, when the transmission providers had significantly fewer interconnection requests to study.¹⁷⁰⁰ SPP contends that cluster studies are more prone to study delays given the interdependencies between interconnection requests and number of parties that need to cooperate.¹⁷⁰¹ Commenters also assert that the other NOPR proposals, including the optional resource solicitation study, informational studies, and evaluation of advanced transmission technologies, add significant burdens to the study process that will make it even more challenging to comply with strict deadlines.¹⁷⁰²

894. Some commenters express concern that the penalties could reduce coordination between transmission providers, interconnection customers, and affected systems.¹⁷⁰³ Commenters

¹⁶⁸³ AEP Initial Comments at 26; Avangrid Initial Comments at 29; Dominion Initial Comments at 34; EEI Initial Comments at 15; Eversource Initial Comments at 21–22; Indicated PJM TOs Initial Comments at 5–6, 38; MISO TOs Initial Comments at 15–17; NextEra Initial Comments at 29; NYISO Initial Comments at 26–27; OMS Initial Comments at 15; Puget Sound Initial Comments at 9–10; State Agencies Initial Comments at 12; Vermont Electric and Vermont Transco Initial Comments at 2.

¹⁶⁸⁴ AEP Initial Comments at 26; Avangrid Initial Comments at 29; Dominion Initial Comments at 34; EEI Initial Comments at 15; Eversource Initial Comments at 21–22; Indicated PJM TOs Initial Comments at 5–6, 38; MISO TOs Initial Comments at 15–17; NextEra Initial Comments at 29; NYISO Initial Comments at 26–27; Puget Sound Initial Comments at 9–10; State Agencies Initial Comments at 12.

¹⁶⁸⁵ AEP Initial Comments at 26; Dominion Initial Comments at 36; Indicated PJM TOs Initial Comments at 37–38; MISO TOs Initial Comments at 16; PJM Initial Comments at 56; Puget Sound Initial Comments at 10.

¹⁶⁸⁶ Ameren Initial Comments at 20; Bonneville Initial Comments at 15; Dominion Initial Comments at 34–35; Eversource Initial Comments at 20–21; Indicated PJM TOs Initial Comments at 39–40; MISO Initial Comments at 13, 71; NextEra Initial Comments at 30; NextEra Reply Comments at 11; North Dakota Commission Initial Comments at 5; PacifiCorp Initial Comments at 34; PG&E Reply Comments at 3; PJM Initial Comments at 7–8, 56; R Street Initial Comments at 14; Southern Initial Comments at 30; State Agencies Initial Comments at 12.

¹⁶⁸⁷ MISO TOs Reply Comments at 12.

¹⁶⁸⁸ NextEra Initial Comments at 29–30.

¹⁶⁸⁹ Indicated PJM TOs Initial Comments at 38 (citing May Joint Task Force Tr. 46:11–13, 89:17–18 (Thad LeVar)).

¹⁶⁹⁰ EEI Initial Comments at 14; MISO Reply Comments at 21.

¹⁶⁹¹ MISO TOs Initial Comments at 21–22; NYISO Initial Comments at 26; PG&E Initial Comments at 6; PG&E Reply Comments at 3.

¹⁶⁹² MISO TOs Initial Comments at 19; PacifiCorp Initial Comments at 33–34.

¹⁶⁹³ MISO TOs Initial Comments at 19; MISO Reply Comments at 21; Tri-State Initial Comments at 18.

¹⁶⁹⁴ Eversource Initial Comments at 30; MISO Reply Comments at 21; MISO TOs Initial Comments at 19–21.

¹⁶⁹⁵ PacifiCorp Initial Comments at 33–34.

¹⁶⁹⁶ Affected Interconnection Customers Initial Comments at 25.

¹⁶⁹⁷ Invenergy Initial Comments at 30.

¹⁶⁹⁸ EEI Initial Comments at 15; Eversource Initial Comments at 22–24.

¹⁶⁹⁹ AECI Initial Comments at 6; Avangrid Initial Comments at 28–29; Bonneville Initial Comments at 15; Clean Energy States Initial Comments at 10–11; Eversource Initial Comments at 27; Idaho Power Initial Comments at 10; ISO–NE Initial Comments at 35–36; ISO/RTO Council Reply Comments at 2; MISO TOs Initial Comments at 15; National Grid Initial Comments at 30; PJM Initial Comments at 58; Puget Sound Initial Comments at 10; SPP Initial Comments at 13; U.S. Chamber of Commerce Initial Comments at 10; WIRES Initial Comments at 10.

¹⁷⁰⁰ Eversource Initial Comments at 27; Indicated PJM TOs Initial Comments at 37–38.

¹⁷⁰¹ SPP Initial Comments at 11–12.

¹⁷⁰² *Id.* at 13; Indicated PJM TOs Initial Comments at 36; MISO Reply Comments at 7; PPL Initial Comments at 24.

¹⁷⁰³ Alliant Energy Initial Comments at 6; EEI Initial Comments at 15; Eversource Initial Comments at 25–26; MISO Reply Comments at 21; North Dakota Commission Initial Comments at 6.

note that the enforcement of deadlines could be expensive, involve contentious disputes, and disrupt ongoing studies.¹⁷⁰⁴ Commenters state that transmission providers will also likely provide less flexibility to interconnection customers to remedy deficiencies or modify interconnection requests.¹⁷⁰⁵ MISO TOs assert that this could threaten reliability.¹⁷⁰⁶ NESCOE points out that firm penalties may impede the interconnection of emerging technologies by limiting flexibility to work on modeling and data requirements.¹⁷⁰⁷

895. PJM argues that using penalties to offset study costs for interconnection customers introduces perverse incentives for the interconnection customer to dispute and thereby delay its study reports to receive the penalty money.¹⁷⁰⁸ In response, however, AEE notes that interconnection customers bear greater costs due to delays, which creates an incentive to move forward as quickly as possible.¹⁷⁰⁹

896. Commenters note that the same engineers that conduct interconnection studies also have other responsibilities such as transmission planning¹⁷¹⁰ and responding to extreme weather events.¹⁷¹¹ Ameren states that penalties could motivate transmission providers to redirect resources towards interconnection studies to the detriment of other necessary functions.¹⁷¹² Some commenters argue that penalties will deprive transmission providers of financial resources or harm work environments and employee morale, making it more difficult to recruit and retain personnel qualified to perform the studies.¹⁷¹³

897. A number of commenters express concern that the NOPR proposal may result in less accurate studies because transmission providers may prioritize

meeting deadlines over accuracy and identification of the most efficient solutions.¹⁷¹⁴ Some commenters further assert that penalties may impair system reliability because the study timelines are too short to carry out sufficient analysis.¹⁷¹⁵ Some commenters argue that the penalties could force transmission providers to complete studies without necessary data, which could also lead to inaccurate results and cause restudy.¹⁷¹⁶ Some commenters state that less accurate studies would harm interconnection customers because interconnection customers cannot rely on them to make sound business decisions.¹⁷¹⁷ Avangrid states that transmission providers could use more conservative assumptions and “stock solutions” to streamline studies, which could increase interconnection costs.¹⁷¹⁸ However, in response to these comments, AEE states that the implementation of timelines and penalties does not inherently determine the evaluation process for clusters.¹⁷¹⁹ AEE notes that inaccurate study results occur today without firm deadlines and that accuracy can be improved even with deadlines.¹⁷²⁰ New Jersey Commission disagrees that there is an inherent tradeoff between system reliability and holding transmission providers accountable, arguing that failing to bring sufficient new generating facilities online can create considerable reliability and economic risks.¹⁷²¹

898. Commenters express concern that the cost of penalties and compliance mechanisms may be passed

down to customers and increase transmission costs.¹⁷²² Clean Energy Buyers argue that the penalties, if they flow through to interconnection customers, could outweigh the benefits gained from other reforms and lead to disputes over the allocation of penalty amounts.¹⁷²³ R Street points out that the Commission will have to ensure that transmission providers cannot translate penalties into cost recovery at either the Federal or retail level.¹⁷²⁴

899. Some commenters characterize the NOPR proposal as a strict liability approach to penalties and argue that it is unjust and unreasonable, arbitrary and capricious, and a violation of due process rights and the Administrative Procedures Act to impose penalties without a fact-based finding of fault.¹⁷²⁵ Some commenters emphasize that the NOPR proposal provides no possibility for the transmission provider to explain the circumstances for the delay, even though the delay is often outside of the transmission provider’s control.¹⁷²⁶ Dominion argues that there are three practical concerns with the NOPR proposal: (1) how disputes about who is at fault will be resolved; (2) who decides fault; and (3) whether the interconnection study should be delayed while the dispute is resolved.¹⁷²⁷

900. Some commenters argue that the reasonable efforts standard is the right approach considering the complex dynamics of the interconnection study process and constantly changing circumstances.¹⁷²⁸ EEI asserts that the reasonable efforts standard is the best approach to govern the interconnection process, which is flexible to allow for the optimum exercise of engineering judgement while ensuring

¹⁷⁰⁴ Clean Energy Associations Initial Comments at 45; EEI Initial Comments at 15; MISO Initial Comments at 13, 71; MISO TOs Initial Comments at 24; MISO TOs Reply Comments at 10; National Grid Initial Comments at 30; NextEra Initial Comments at 30; OMS Initial Comments at 15; PacifiCorp Initial Comments at 35; R Street Initial Comments at 14; SPP Initial Comments at 14.

¹⁷⁰⁵ Dominion Reply Comments at 21; EEI Initial Comments at 15; Eversource Initial Comments at 25–26; NYISO Initial Comments at 38–39; WIRES Initial Comments at 10.

¹⁷⁰⁶ MISO TOs Reply Comments at 18–19.

¹⁷⁰⁷ *Id.*; NESCOE Initial Comments at 17.

¹⁷⁰⁸ PJM Initial Comments at 57.

¹⁷⁰⁹ AEE Reply Comments at 35–36.

¹⁷¹⁰ Indicated PJM TOs Initial Comments at 6.

¹⁷¹¹ National Grid Initial Comments at 30.

¹⁷¹² Ameren Initial Comments at 21.

¹⁷¹³ Eversource Initial Comments at 25–26; Indicated PJM TOs Initial Comments at 24, 40; MISO TOs Initial Comments at 24; PacifiCorp Northwest Utilities Initial Comments at 12; PJM Initial Comments at 57.

¹⁷¹⁴ AECI Initial Comments at 6; Alliant Energy Initial Comments at 6; Avangrid Initial Comments at 9–10, 30; Bonneville Initial Comments at 15–16; CESA Reply Comments at 8; Clean Energy Buyers Initial Comments at 10–11; Enel Initial Comments at 48; Indicated PJM TOs Reply Comments at 26; ISO/RTO Council Initial Comments at 8; Longroad Energy Reply Comments at 14; MISO Initial Comments at 13, 71, 77–78; MISO TOs Initial Comments at 14, 24; National Grid Initial Comments at 30; NESCOE Reply Comments at 13; NextEra Reply Comments at 11; North Dakota Commission Initial Comments at 6; NRECA Initial Comments at 34; NYISO Initial Comments at 38–39; NYTOs Initial Comments at 24–28; Omaha Public Power Initial Comments at 12; OMS Initial Comments at 15; Ørsted Initial Comments at 15; PacifiCorp Reply Comments at 6; PJM Initial Comments at 8, 56–57; PPL Initial Comments at 19; SPP Initial Comments at 11–12; Tri-State Initial Comments at 18; Xcel Initial Comments at 38.

¹⁷¹⁵ AEP Initial Comments at 28; Dominion Reply Comments at 21; NYISO Initial Comments at 39; PJM Initial Comments at 8, 56–57.

¹⁷¹⁶ Ameren Initial Comments at 21; MISO Initial Comments at 78; SPP Initial Comments at 12–13.

¹⁷¹⁷ Enel Initial Comments at 48–49; MISO Initial Comments at 78; OMS Initial Comments at 15; SPP Initial Comments at 12.

¹⁷¹⁸ Avangrid Initial Comments at 30.

¹⁷¹⁹ AEE Reply Comments at 33.

¹⁷²⁰ *Id.* at 31–32.

¹⁷²¹ New Jersey Commission Reply Comments at 3.

¹⁷²² Alliant Energy Initial Comments at 6–7; NARUC Initial Comments at 19; NYISO Reply Comments at 6–7, 9; R Street Initial Comments at 14; SEIA Reply Comments at 17; State Agencies Initial Comments at 12; Tri-State Initial Comments at 18; Vermont Electric and Vermont Transco Initial Comments at 2.

¹⁷²³ Clean Energy Buyers Initial Comments at 10.

¹⁷²⁴ R Street Initial Comments at 15; *see also* SEIA Reply Comments at 17.

¹⁷²⁵ MISO Initial Comments at 13, 71; MISO Reply Comments at 19–20; MISO TOs Initial Comments at 18; SPP Initial Comments at 14; NYISO Initial Comments at 40 (citing *Motor Vehicle Mfrs. Ass’n of U.S., Inc. v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983); *Enforcement of Statutes, Regs. & Orders*, 123 FERC ¶ 61,156, at PP 50–71 (2008)); WIRES Initial Comments at 10.

¹⁷²⁶ ISO–NE Initial Comments at 35; ISO/RTO Council Initial Comments at 2; MISO Initial Comments at 7.

¹⁷²⁷ Dominion Reply Comments at 24.

¹⁷²⁸ Avangrid Initial Comments at 10, 30–31; Bonneville Initial Comments at 16; Indicated PJM TOs Initial Comments at 36; NYISO Initial Comments at 30–31; PG&E Reply Comments at 3–4; WIRES Initial Comments at 10.

accountability for egregious delays or what is not consistent with good utility practice.¹⁷²⁹ MISO TOs note that, in Order No. 2003, the Commission explained that the reasonable efforts standard was a high standard because parties use it when protecting their own interests and applying this standard to all parties would “ensure comparable treatment.”¹⁷³⁰

901. NYISO contends that the reasonable efforts standard and Order No. 845 reporting requirements provide the Commission and stakeholders with information to evaluate the length of time taken by RTOs/ISOs to finish studies, compare their performance, and identify and investigate when a particular entity is systematically delaying studies, which will allow the Commission and stakeholders to take appropriate action.¹⁷³¹ SPP proposes that the Commission retain the reasonable efforts standard and make improvements to it or enforce it more strictly.¹⁷³²

902. WAPA notes that, as a Federal power marketing administration, it has statutory duties that take precedence over deliverables established by the Commission and cannot be subject to monetary penalties without a waiver of sovereign immunity.¹⁷³³ Avangrid notes that many transmission providers and transmission owners do not earn rates of return for interconnection facilities or network upgrades and do not profit from interconnection studies, so penalties would reduce shareholder return on equity.¹⁷³⁴

iii. Comments on Specific Proposal

903. Some commenters support eliminating the reasonable efforts standard but do not support the proposed financial penalties.¹⁷³⁵ CAISO argues that the Commission should simply prohibit late studies and mandate firm study deadlines because the proposed penalties will enable transmission providers to continue completing studies late if they are willing to pay the price.¹⁷³⁶ CAISO explains that, if a transmission provider cannot meet its study deadlines, it should be required to amend its

tariff.¹⁷³⁷ Other commenters, as described below, have various comments on the specific penalty proposal.

(a) Penalty Amount

904. Some commenters advocate for larger penalties than the NOPR proposal.¹⁷³⁸ Some commenters contend that the proposed penalty amount is *de minimis*¹⁷³⁹ or that a \$500 per business day penalty is likely too small to prompt a change in behavior.¹⁷⁴⁰ Cypress Creek argues that penalties should be commensurate with the magnitude of liquidated damages that interconnection customers face if they do not meet their contractual deadlines.¹⁷⁴¹ ACE–NY proposes a penalty of \$5,000 to \$25,000 per day, depending on cluster size, if the Commission chooses a per-cluster-per-day penalty structure.¹⁷⁴² Affected Interconnection Customers propose that the Commission adopt a penalty of \$2,500 per day capped at \$2 million.¹⁷⁴³ Public Interest Organizations state that there is not sufficient consensus in the record to move forward with the \$500 per day penalty amount and suggest that the Commission hold a technical conference to determine the final amount.¹⁷⁴⁴

905. Some commenters argue that the penalties should increase through the study process because later-stage study delays have greater impacts on interconnection customers, which are required to make increasing commitments throughout the study process.¹⁷⁴⁵ Invenery recommends penalty amounts of \$5,000 per day for cluster studies, \$6,000 per day for

cluster restudies, and \$7,000 per day for facilities studies.¹⁷⁴⁶

906. Pine Gate expresses concern that the proposed penalty amounts do not correspond to the costs imposed on interconnection customers as a result of the late study results, explaining that the penalty amount is dwarfed by the overall cluster study cost and that the low daily rate would require an interconnection study to be delayed years before the amounts would approach the study deposit amounts.¹⁷⁴⁷ As an example, Pine Gate refers to the most recent MISO interconnection queue submissions: MISO received 956 interconnection requests, totaling 170.8 GW of new generation, and collected \$687,980,000 in study deposits. Pine Gate notes that, under a late study fee of \$500 per day, a study would have to be delayed 1,375,960 days—or 3,770 years—before equaling the cost of study deposits. Further, Pine Gate explains that the daily carrying cost on the study deposit cost at the prevailing development loan interest rate of 10% is approximately \$188,487.67. Thus, Pine Gate states that, before the proposed 10-day grace period has elapsed, interconnection customers will have spent \$1,884,876 in additional interest costs.

907. In response to requests for higher penalties, some commenters argue that there is no legal or policy justification for making the proposed penalty scheme harsher and more inequitable.¹⁷⁴⁸ MISO argues that NERC reliability penalties are typically assessed at under \$500 per day, if at all, and NERC non-critical infrastructure protection penalties are also assessed at far lower values. MISO contends that, because these “moderate risk” violations merit such low penalties, there is no support for \$500 per day penalties for delayed interconnection studies.¹⁷⁴⁹

908. NARUC supports the proposal to cap the penalty amount at 100% of the total study deposit received.¹⁷⁵⁰ Several commenters argue that the penalty amount should be capped at an amount greater than 100% of the total study deposit received.¹⁷⁵¹ Invenery requests that the Commission clarify that the cap is not reduced by any withdrawal penalties.¹⁷⁵² Public Interest

¹⁷²⁹ EEI Reply Comments at 16.

¹⁷³⁰ MISO TOs Reply Comments at 6–7 (citing Order No. 2003, 104 FERC ¶ 61,103 at P 69).

¹⁷³¹ NYISO Initial Comments at 31.

¹⁷³² SPP Initial Comments at 15.

¹⁷³³ WAPA Initial Comments at 10.

¹⁷³⁴ Avangrid Initial Comments at 30.

¹⁷³⁵ CAISO Initial Comments at 25–26; Clean Energy Buyers Initial Comment at 9–10; MISO Initial Comments at 13, 71, 79; Shell Initial Comments at 10.

¹⁷³⁶ CAISO Initial Comments at 25–26; PG&E Reply Comments at 4.

¹⁷³⁷ CAISO Initial Comments at 25–26.

¹⁷³⁸ ACE–NY Initial Comments at 12; Affected Interconnection Customers Initial Comments at 25–26; CESA Initial Comments at 11; CESA Reply Comments at 9; Consumers Energy Initial Comments at 6; CREA and NewSun Reply Comments at 56; Cypress Creek Initial Comments at 24; EPSA Initial Comments at 11; Fervo Energy Initial Comments at 6; Invenery Initial Comments at 29; Pine Gate Initial Comments at 39.

¹⁷³⁹ CESA Reply Comments at 8; Invenery Initial Comments at 29; NARUC Initial Comments at 14.

¹⁷⁴⁰ ACE–NY Initial Comments at 12; Affected Interconnection Customers Initial Comments at 24–26; CESA Initial Comments at 11; Clean Energy Associations Initial Comments at 44; Consumers Energy Initial Comments at 6; ELCON Initial Comments at 7–8; Pine Gate Initial Comments at 39.

¹⁷⁴¹ Cypress Creek Initial Comments at 24.

¹⁷⁴² ACE–NY Initial Comments at 12.

¹⁷⁴³ Affected Interconnection Customers Initial Comments at 5, 26; CESA Reply Comments at 9.

¹⁷⁴⁴ Public Interest Organizations Reply Comments at 5–6.

¹⁷⁴⁵ CESA Initial Comments at 11; Clean Energy Associations Initial Comments at 44; CREA and NewSun Reply Comments at 57; Invenery Initial Comments at 30.

¹⁷⁴⁶ Invenery Initial Comments at 30.

¹⁷⁴⁷ Pine Gate Initial Comments at 39–40.

¹⁷⁴⁸ MISO TOs Reply Comments at 19; NYISO Reply Comments at 1.

¹⁷⁴⁹ MISO Reply Comments at 23.

¹⁷⁵⁰ NARUC Initial Comments at 15.

¹⁷⁵¹ Interwest Initial Comments at 8; Invenery Initial Comments at 31; Northwest and Intermountain Initial Comments at 14.

¹⁷⁵² Invenery Initial Comments at 31.

Organizations propose that transmission providers that reach the cap issue a compliance statement explaining in detail the source of the delay and use penalty amounts above the cap to hire third-party consultants to conduct interconnection studies.¹⁷⁵³

909. Several commenters argue that the penalty amount should not be capped.¹⁷⁵⁴ Some commenters note that financial penalties for interconnection customers are not capped at their study deposits.¹⁷⁵⁵ Other commenters argue that the study deposit amount cap is not commensurate with the harm late studies cause interconnection customers.¹⁷⁵⁶

(b) Penalty Structure

910. Some commenters suggest a per-customer per-day penalty structure, rather than the NOPR proposal for a per-cluster per-day structure.¹⁷⁵⁷ AEE suggests that the Commission assess penalties based on the higher value of \$500 per day or \$100 per customer per day.¹⁷⁵⁸ Multiple commenters oppose a penalty structure based on the number of interconnection customers because transmission providers have no control over the number of interconnection requests they receive and higher request volumes lead to more complex studies with more potential for delay.¹⁷⁵⁹

911. Some commenters suggest a penalty structure based on the cluster's characteristics.¹⁷⁶⁰ Public Interest Organizations suggest a penalty structure set as a percentage of the total study deposit received per day.¹⁷⁶¹ Google recommends the penalty structure take into account both the size of the interconnection request and the magnitude of a study delay's impact on other interconnection requests in the interconnection queue, which would focus penalties on delays that have the most impact on overall processing of the

interconnection queue.¹⁷⁶² NARUC explains that the penalty should not be targeted at the number of interconnection customers in a cluster that are delayed but at the desirable characteristics of the generating facilities being delayed.¹⁷⁶³

912. Some commenters suggest that the Commission require transmission providers to discount study costs for delayed studies by the percentage of time they are delayed in completing such study, subject to a maximum discount set by the Commission.¹⁷⁶⁴ Clean Energy States propose that, if an interconnection study is late, the transmission provider could not charge the interconnection customers for the cost of the study, providing the interconnection customer a modest amount of compensation for the delay.¹⁷⁶⁵ PacifiCorp argues that neither the host transmission provider nor affected system operator should be penalized if either party delays the work of the other, especially if the delays are caused by transmission providers that are not public utilities.¹⁷⁶⁶

913. NRECA and Tri-State assert that the final rule should allow transmission providers to stop or reset the clock in the event of interconnection customer-initiated delays.¹⁷⁶⁷ Similarly, APPA-LPPC state that the clock should not start running on study deadlines until after the interconnection customer submits all necessary information, including curing any deficiencies.¹⁷⁶⁸ Tri-State asserts that a delay should not be penalized if it is caused by a higher-queued cluster going through a restudy.¹⁷⁶⁹ Tri-State also suggests that, if the Commission moves forward with penalties for late studies, additional language should be added requiring interconnection customers to provide needed information within a specified time frame in order to complete the studies. R Street claims that transmission providers can game requirements that trigger penalties, such as by forcing requesting parties to

resubmit specifications to restart the processing clock.¹⁷⁷⁰

(c) Penalty Allocation and Distribution

914. Many commenters agree that transmission providers, including RTOs/ISOs, must not pass on penalty costs to ratepayers.¹⁷⁷¹ Public Interest Organizations support enabling transmission providers to allocate penalty costs to responsible parties but recommend maintaining presumption of fault with the transmission providers themselves and disallowing transmission providers from recovering penalty amounts.¹⁷⁷²

915. Several commenters support distributing the penalties collected from transmission providers to the impacted interconnection customers.¹⁷⁷³ PG&E seeks clarification on how the penalty would be distributed (*i.e.*, equal distribution to each interconnection customers, equal distribution among interconnection requests, or distributed based on project size).¹⁷⁷⁴ Fervo Energy supports the proposal to require transmission providers to provide quarterly public reports on total amounts of penalties and the highest penalty for a single interconnection request.¹⁷⁷⁵ Google argues that transmission providers should make such a report available annually to state commissions to ensure penalties are not paid by consumers.¹⁷⁷⁶

916. National Grid argues that the Commission should allow transmission providers to recover penalties from an interconnection customer if the customer is responsible for the delay.¹⁷⁷⁷

¹⁷⁵³ Public Interest Organizations Initial Comments at 36.

¹⁷⁵⁴ *Id.* at 35–36; ACE–NY Initial Comments at 13; AEE Reply Comments at 37; Consumers Energy Initial Comments at 6; CREA and NewSun Initial Comments at 84; Cypress Creek Initial Comments at 23–24; SEIA Initial Comments at 34.

¹⁷⁵⁵ AEE Initial Comments at 31; Northwest and Intermountain Initial Comments at 15.

¹⁷⁵⁶ CREA and NewSun Initial Comments at 84; SEIA Initial Comments at 34.

¹⁷⁵⁷ ACE–NY Initial Comments at 13; SEIA Initial Comments at 34. PG&E seeks clarification on whether the penalties will apply per-customer per-day or per-cluster per-day. PG&E Initial Comments at 8.

¹⁷⁵⁸ AEE Initial Comments at 31.

¹⁷⁵⁹ CAISO Initial Comments at 27; MISO Reply Comments at 24; Xcel Initial Comments at 38.

¹⁷⁶⁰ Google Initial Comments at 17; NARUC Initial Comments at 20–21; Public Interest Organizations Initial Comments at 34.

¹⁷⁶¹ Public Interest Organizations Initial Comments at 34.

¹⁷⁶² Google Initial Comments at 17.

¹⁷⁶³ NARUC Initial Comments at 20–21.

¹⁷⁶⁴ AEE Initial Comments at 28–29; AEE Reply Comments at 36–37; Clean Energy Associations Initial Comments at 45 (explaining that, under their preferred approach, if a study took 30 calendar days past a 150-calendar day deadline, that would result in a 20% discount on study costs); Longroad Energy Reply Comments at 14; Pine Gate Initial Comments at 40; SEIA Reply Comments at 17.

¹⁷⁶⁵ Clean Energy States Initial Comments at 10–11.

¹⁷⁶⁶ PacifiCorp Initial Comments at 37.

¹⁷⁶⁷ NRECA Initial Comments at 34; Tri-State Initial Comments at 19.

¹⁷⁶⁸ APPA–LPPC Initial Comments at 21.

¹⁷⁶⁹ Tri-State Initial Comments at 18.

¹⁷⁷⁰ R Street Initial Comments at 15.

¹⁷⁷¹ Clean Energy Associations Initial Comments at 44; Consumers Energy Initial Comments at 6; Cypress Creek Initial Comments at 24; Google Initial Comments at 18; Illinois Commission Initial Comments at 9; NARUC Initial Comments at 15; New Jersey Commission Initial Comments at 13–14; OPSI Initial Comments at 8–9; SEIA Initial Comments at 34; *see also* Ohio Commission Consumer Advocate Initial Comments at 13 (“Although FERC states that the proposed penalties would not be recoverable in transmission rates, we believe such imposition will inevitably impact ratepayers, and not rightfully so, unless it can be clearly demonstrated that the proposed \$500/day penalty is not passed along[.]”). *But see* Iowa Commission Initial Comments at 5–6 (“[I]t is not correct to assume that the penalties would result in ultimate costs to the customers/ratepayers as some of the stakeholders contend[.]”).

¹⁷⁷² Public Interest Organizations Reply Comments at 6, 8–9.

¹⁷⁷³ ACE–NY Initial Comments at 12; Interwest Initial Comments at 9; NARUC Initial Comments at 14–15; Northwest and Intermountain Initial Comments at 15.

¹⁷⁷⁴ PG&E Initial Comments at 8.

¹⁷⁷⁵ Fervo Energy Initial Comments at 6.

¹⁷⁷⁶ Google Initial Comments at 20.

¹⁷⁷⁷ National Grid Initial Comments at 33.

(d) Penalty Recovery in RTOs/ISOs

917. Some commenters support the proposal to allow RTOs/ISOs to recover the cost of specific interconnection study penalties from transmission owners responsible for study delays through FPA section 205 filings.¹⁷⁷⁸ ACORE recommends that RTOs/ISOs provide explicit criteria for how they will determine which parties are responsible for or contributed to study delays.¹⁷⁷⁹ AEE suggests that the Commission assign RTO/ISO penalties to transmission owners by default.¹⁷⁸⁰ In response to AEE's proposal, MISO TOs assert that imposing penalties on transmission owners that did not have control over the causes of study delays does not follow cost causation principles.¹⁷⁸¹

918. Some commenters express concerns about how RTOs/ISOs will pay penalties if no member is found responsible.¹⁷⁸² OPSI contends that, because RTOs/ISOs rely on transmission owners to process interconnection queues, they may be reluctant to seek penalty recovery from them.¹⁷⁸³

919. Several commenters oppose the proposal to allow RTOs/ISOs to recover the cost of specific interconnection study penalties from transmission owners responsible for study delays through FPA section 205 filings.¹⁷⁸⁴ Such commenters assert that the proposal does not provide sufficient detail on how penalties will work in RTO/ISO regions.¹⁷⁸⁵ Some commenters contend that imposing penalties on RTOs/ISOs will not expedite interconnection studies because the penalties will not address the actual source of study delays and will disrupt processing of interconnection queues.¹⁷⁸⁶ ISO-NE and MISO note that delays may not be the fault of the RTO/

ISO because transmission owners often conduct the studies.¹⁷⁸⁷

920. Commenters argue that the proposed penalty system would impose administrative and litigative burden on RTOs/ISOs and the Commission.¹⁷⁸⁸ Indicated PJM TOs argue that the process before the Commission will need to be a complete *de novo* review.¹⁷⁸⁹ SoCal Edison and New York State Department note that the penalty system would likely require additional resources to track and allocate penalties, which could increase the cost of administering interconnection queues.¹⁷⁹⁰ The ISO/RTO Council claims that, under the NOPR proposal, RTOs/ISOs will need to act as fact-finding tribunals to fairly assign penalties before making an FPA section 205 filing, which would be a time- and resource-consuming process at odds with the goal of reducing interconnection study delays.¹⁷⁹¹ TAPS avers that RTOs/ISOs would need precise and well-supported cases to successfully assign penalties to responsible transmission owners.¹⁷⁹²

921. Commenters contend that having RTOs/ISOs assign penalties to responsible entities would harm coordination or create tension between RTOs/ISOs, transmission owners, interconnection customers, and other parties.¹⁷⁹³ AEP and TAPS assert that the proposal could discourage RTO/ISO participation.¹⁷⁹⁴

922. Commenters express concern around imposing penalties on non-profit RTOs/ISOs, which have no ability to pay fines without collecting them from another party.¹⁷⁹⁵ MISO contends that, for RTOs/ISOs, penalties without

specified payees are effectively a tax on LSEs.¹⁷⁹⁶

923. NYISO contends that penalties would threaten RTOs'/ISOs' financial viability.¹⁷⁹⁷ NYISO explains that RTO/ISO penalties and challenges to penalty recovery have been rare. NYISO claims that there are no examples of Commission denials of penalty cost recovery, so RTOs/ISOs would be subject to considerable uncertainty about their ability to recover study penalties.¹⁷⁹⁸ NYISO argues that, if the Commission is likely to accept RTO/ISO penalty recovery proposals, then the penalties would serve no purpose because they would be passed to customers and fail to incentivize RTOs/ISOs to complete studies in a more timely manner.

924. NYISO argues that it is unjust and unreasonable and unduly discriminatory to apply the same level of penalties to RTOs/ISOs as other transmission providers because they are differently situated than other transmission providers.¹⁷⁹⁹ NYISO states that an identical penalty would be much more punitive on RTOs/ISOs than other transmission providers, so any financial penalties imposed on RTOs/ISOs should be smaller in size and slower to trigger. NYISO requests that, if the Commission requires penalties, it allow RTOs/ISOs to propose in their compliance filings appropriate rules for their own regions.

925. NYISO further argues that Order Nos. 672¹⁸⁰⁰ and 890 do not support subjecting RTOs/ISOs to the same penalties as non-independent transmission providers.¹⁸⁰¹ NYISO argues that the proposed penalties pose a greater risk to RTOs/ISOs than reliability penalties, which have been assessed in rare circumstances and are subject to the Commission's close scrutiny.¹⁸⁰² NYISO also notes that it does not conduct the kinds of transmission studies addressed in Order No. 890, so the formal applicability of the Order No. 890 penalty regime to RTOs/ISOs does not mean that application of penalties to RTOs/ISOs is practicable.¹⁸⁰³

926. Many commenters express concerns that RTOs/ISOs may pass

¹⁷⁷⁸ ACE-NY Initial Comments at 12; CESA Reply Comments at 8–9; Google Initial Comments at 19; NARUC Initial Comments at 17; Public Interest Organizations Initial Comments at 35; SEIA Initial Comments at 34.

¹⁷⁷⁹ ACORE Initial Comments at 8.

¹⁷⁸⁰ AEE Initial Comments at 30.

¹⁷⁸¹ MISO TOs Reply Comments at 20–21 (citing *K N Energy, Inc. v. FERC*, 968 F.2d 1295, 1300 (D.C. Cir. 1992)).

¹⁷⁸² Alliant Energy Initial Comments at 6–7; APPA-LPPC Initial Comments at 22; NARUC Initial Comments at 18; NESCOE Initial Comments at 16.

¹⁷⁸³ OPSI Initial Comments at 9.

¹⁷⁸⁴ AEP Initial Comments at 27–28; CAISO Initial Comments at 26; Dominion Initial Comments at 35–36; EEI Initial Comments at 17; ISO-NE Initial Comments at 34–36; SPP Initial Comments at 15; TAPS Initial Comments at 3.

¹⁷⁸⁵ Eversource Initial Comments at 29; PJM Initial Comments at 57.

¹⁷⁸⁶ ISO/RTO Council Initial Comments at 2; WIRES Initial Comments at 11.

¹⁷⁸⁷ ISO-NE Initial Comments at 35; MISO Initial Comments at 14, 73–74.

¹⁷⁸⁸ Avangrid Reply Comments at 8; CAISO Initial Comments at 26; Indicated PJM TOs Reply Comments at 27; ISO-NE Initial Comments at 35; ISO/RTO Council Initial Comments at 3–4; MISO Initial Comments at 16, 77; MISO TOs Reply Comments at 21–22; New York State Department Initial Comments at 10–11; NYISO Initial Comments at 33; PJM Initial Comments at 57–58; SoCal Edison Initial Comments at 19.

¹⁷⁸⁹ Indicated PJM TOs Initial Comments at 44.

¹⁷⁹⁰ New York State Department Initial Comments at 10–11; SoCal Edison Initial Comments at 19.

¹⁷⁹¹ ISO/RTO Council Initial Comments at 5; *see also* Indicated PJM TOs Initial Comments at 37 (explaining that it would be difficult for RTOs to determine who is at fault for study delays).

¹⁷⁹² TAPS Initial Comments at 6–7.

¹⁷⁹³ AEP Initial Comments at 27; Dominion Initial Comments at 35–36; Indicated PJM TOs Reply Comments at 6–7, 27; NextEra Initial Comments at 30; NYISO Initial Comments at 39–40; PJM Initial Comments at 57–58.

¹⁷⁹⁴ AEP Initial Comments at 27–28; TAPS Initial Comments at 6.

¹⁷⁹⁵ MISO Initial Comments at 13, 71; MISO TOs Reply Comments at 20; NYISO Reply Comments at 10.

¹⁷⁹⁶ MISO Initial Comments at 13, 72.

¹⁷⁹⁷ NYISO Initial Comments at 32.

¹⁷⁹⁸ *Id.* at 37.

¹⁷⁹⁹ *Id.* at 41.

¹⁸⁰⁰ *Rules Concerning Certification of the Elec. Reliability Org.; & Procs. for the Establishment, Approval, & Enf't of Elec. Reliability Standards*, Order No. 672–A, 71 FR 19814 (Apr. 18, 2006), 114 FERC ¶ 61,104 (2006).

¹⁸⁰¹ NYISO Initial Comments at 32–33.

¹⁸⁰² *Id.* at 33–34.

¹⁸⁰³ *Id.* at 36.

penalty costs through to transmission owners or ratepayers who did not contribute to study delays, which they claim is unjust and unreasonable.¹⁸⁰⁴ New York State Department does not support penalties unless they can be recovered from RTO/ISO bonuses or shareholder profits.¹⁸⁰⁵

927. Some commenters also argue that the proposal to allow RTOs/ISOs to recover penalties from transmission owners ignores that other entities may be responsible for study delays.¹⁸⁰⁶ MISO explains, for example, that it has no mechanism to recover penalties from affected systems and that, even for entities subject to MISO's tariff, consensus on a penalty pass through mechanism is likely to be elusive.¹⁸⁰⁷ Several commenters argue that, because RTOs/ISOs will have to pass through the penalty, it will not accomplish the Commission's goals.¹⁸⁰⁸ NESCOE, however, disagrees that RTOs/ISOs will have to pass through penalty costs but notes that the Commission required RTOs/ISOs to file proposals to recover penalties incurred for reliability standard violations case-by-case.¹⁸⁰⁹

928. TAPS distinguishes NERC reliability penalties as part of a congressionally mandated regimen, whereas the proposed penalties are not.¹⁸¹⁰ TAPS notes that, while NERC reliability penalty amounts are used to offset operational costs of NERC or other relevant entities, the NOPR proposes to distribute penalty costs back to interconnection customers, who are not required to use those funds to offset costs for consumers or ratepayers.

929. TAPS also seeks clarification because the NOPR proposal provided

that penalties should not be recoverable in transmission rates but also noted that penalties imposed on RTOs/ISOs could be handled similarly to NERC reliability penalties, which the Commission has previously allowed RTOs/ISOs to recover from ratepayers.¹⁸¹¹ TAPS contends that the Commission should not allow RTOs/ISOs to pass penalties through to ratepayers or LSEs; to the extent the Commission allows RTOs/ISOs to recover costs through FPA section 205 proceedings, TAPS recommends that the Commission automatically waive any penalty amount the RTO/ISO would otherwise pass to ratepayers.¹⁸¹²

930. Commenters argue that the proposed penalty structure lacks the due process and fact finding associated with the RTO/ISO recovery of NERC reliability penalties.¹⁸¹³ MISO and ISO/RTO Council explain that NERC uses a fact-finding tribunal, which avoids the potential conflicts of interest and process disruptions that would stem from requiring the transmission provider to judge disputes.¹⁸¹⁴ Indicated PJM TOs explain that RTOs/ISOs can only recover NERC reliability penalties from another entity if that entity was identified and allowed to participate in the NERC process.¹⁸¹⁵ Commenters note that NERC reliability penalty amounts are calculated based on specific circumstances and that financial penalties are not always imposed.¹⁸¹⁶ Further, the ISO/RTO Council argues that the NOPR proposal to allow FPA section 205 filings to allocate penalties is unworkable because it assumes the RTO/ISO will be able to identify a transmission owner that is responsible for the delay.¹⁸¹⁷

931. ISO-NE and MISO explain that transmission providers are in no position to perform fact-finding, which would require a time- and resource-consuming process to hear from all involved parties.¹⁸¹⁸ MISO states that it has no procedures beyond its alternative dispute resolution process for adjudicating disputes and even these procedures call for multi-month

processes.¹⁸¹⁹ MISO notes that it is unclear who would make the findings and how penalties would be assigned if multiple parties contribute to a delay.¹⁸²⁰ MISO and ISO/RTO Council note that the personnel able to determine the cause of a delay are the interconnection study engineers, who would need to divert their resources from performing studies to provide evidence.¹⁸²¹

932. MISO TOs state that, if the Commission adopts penalties, it should also adopt the requirement that RTOs/ISOs make an FPA section 205 filing before allocating any penalties to a transmission owner in order to provide due process to the transmission owner and to be consistent with the Commission's approach to RTO/ISO recovery of NERC reliability penalty costs.¹⁸²²

933. Indicated PJM TOs argue that it is unclear whether PJM has the authority to recover penalty costs from transmission owners.¹⁸²³ Indicated PJM TOs state that the consolidated transmission owners agreement (CTOA) specifies that PJM has the right to file "charges for recovery of PJM costs" under FPA section 205, but they argue that penalties are not a cost of operation. Indicated PJM TOs explain that the CTOA reserves rights not specifically transferred to PJM to transmission owners. Therefore, Indicated PJM TOs conclude that the right to recover penalties was not conferred on PJM and that PJM lacks the contractual authority to seek recovery of penalties from transmission owners under FPA section 205. Indicated PJM TOs add that modifying the CTOA would implicate the *Mobile-Sierra* presumption.¹⁸²⁴

934. Further, Indicated PJM TOs argue that the Commission lacks the authority under FPA section 205 to require RTOs/ISOs to seek cost recovery of interconnection study penalties.¹⁸²⁵ SEIA disagrees and asks the Commission to establish a regime in which it can recover penalties for late studies in Order No. 890.¹⁸²⁶

(e) Study Deadline Extension

935. Several commenters support the NOPR proposal to allow for the

¹⁸⁰⁴ *Id.* at 32; Alliant Energy Initial Comments at 6–7; EEI Initial Comments 17; Indicated PJM TOs Initial Comments at 37; ISO/RTO Council Initial Comments at 3–4; NARUC Initial Comments at 18; NEPOOL Initial Comments at 16; NESCOE Reply Comments at 11; New York State Department Initial Comments at 10; North Dakota Commission Initial Comments at 6; Omaha Public Power Initial Comments at 11; OMS Initial Comments at 15; R Street Initial Comments at 14; State Agencies Initial Comments at 12–13; TAPS Initial Comments at 3–5; WIREs Initial Comments at 11.

¹⁸⁰⁵ New York State Department Initial Comments at 10.

¹⁸⁰⁶ ISO/RTO Council Initial Comments at 3–4; MISO Initial Comments at 74.

¹⁸⁰⁷ MISO Initial Comments at 14, 74–75.

¹⁸⁰⁸ AEE Initial Comments at 29; APPA–LPPC Initial Comments at 22; Clean Energy States Initial Comments at 9–10; ISO/RTO Council Initial Comments at 3–4; NESCOE Reply Comments at 12–13; Omaha Public Power Initial Comments at 11; Public Interest Organizations Initial Comments at 35; WIREs Initial Comments at 11.

¹⁸⁰⁹ NESCOE Reply Comments at 12 n.44 (citing *Reliability Standard Compliance & Enft in Regions with Reg'l Transmission Orgs. or Indep. Sys. Operators*, 122 FERC ¶ 61,247, at P 16 (2008)).

¹⁸¹⁰ TAPS Initial Comments at 5 (citing 16 U.S.C. 824o).

¹⁸¹¹ *Id.* at 3–5.

¹⁸¹² *Id.* at 7–8.

¹⁸¹³ Indicated PJM TOs Initial Comments at 43–44; ISO/RTO Council Initial Comments at 2; MISO Initial Comments at 15, 76; NYISO Initial Comments at 35–36.

¹⁸¹⁴ ISO/RTO Council Initial Comments at 6; MISO Initial Comments at 15, 75–76.

¹⁸¹⁵ Indicated PJM TOs Initial Comments at 43.

¹⁸¹⁶ ISO/RTO Council Initial Comments at 7; MISO Initial Comments at 15, 76–77; NYISO Initial Comments at 36.

¹⁸¹⁷ ISO/RTO Council Initial Comments at 4.

¹⁸¹⁸ ISO-NE Initial Comments at 36; MISO Initial Comments at 15, 75.

¹⁸¹⁹ MISO Initial Comments at 15, 75.

¹⁸²⁰ *Id.* at 76.

¹⁸²¹ *Id.*; ISO/RTO Council Initial Comments at 7.

¹⁸²² MISO TOs Initial Comments at 26.

¹⁸²³ Indicated PJM TOs Initial Comments at 44–45.

¹⁸²⁴ *Id.* at 45 n.126 (citing *Morgan Stanley Cap. Grp. Inc. v. Pub. Util. Dist. No. 1*, 554 U.S. 527 (2008); *NRG Power Mktg., LLC v. Me. Pub. Utils. Comm'n*, 558 U.S. 165 (2010)).

¹⁸²⁵ *Id.* at 45 (citing *Atl. City Elec. Co. v. FERC*, 329 F.3d 856, 859 (D.C. Cir. 2003) (per curiam)).

¹⁸²⁶ SEIA Reply Comments at 13.

extension of a study deadline by mutual agreement.¹⁸²⁷ Some commenters argue that this extension will promote cooperation between interconnection customers and transmission providers.¹⁸²⁸ Further, AEE argues that the extension option will provide a buffer for studies that warrant more time and that the two study cycle transition will give transmission providers time to adjust to the cluster model and deadlines, to understand possible variability in each cluster, and to develop strategies for times when extra bandwidth is needed, such as hiring third-party assistance.¹⁸²⁹ AEE suggests that the Commission require that the mutual agreements be publicly available.¹⁸³⁰

936. NARUC supports the proposal so long as the transmission provider certifies to the Commission that the extension will not delay unrelated interconnection requests outside the cluster.¹⁸³¹

937. Several commenters propose modifications to the NOPR deadline extension proposal. NYISO states that it is unreasonable to allow individual interconnection customers to veto extensions and instead proposes that 30-day extensions should be available if the RTO/ISO notifies the Commission that there is good cause to take additional time to complete the study.¹⁸³² Indicated PJM TOs argue that it will be virtually impossible to obtain mutual agreement in a region with a large number of interconnection customers and instead propose that the transmission provider determine the appropriate extension on compliance.¹⁸³³ Tri-State notes that there is no incentive for interconnection customers who have agreed to a study deadline to re-negotiate and mutually agree upon an extended deadline.¹⁸³⁴ SoCal Edison suggests that the Commission allow transmission providers to extend study deadlines in the event of a larger than usual cluster.¹⁸³⁵

(f) Transition

938. Duke Southeast Utilities request that the Commission clarify that transmission providers already using a cluster study process will not be subject

to penalties until after the completion of two study cycles, which will encourage transmission providers not to employ an unnecessary transition process.¹⁸³⁶ Other commenters argue that financial penalties should be in effect during the first transitional cluster study.¹⁸³⁷

(g) Force Majeure Exception

939. Several commenters support the NOPR proposal to only permit exceptions to the penalty in instances of *force majeure*, arguing that additional exceptions make the penalty less effective.¹⁸³⁸ Invenergy argues that there should be a process for transmission providers to declare *force majeure* to prevent the overuse of this exception.¹⁸³⁹ CREA and NewSun argue that any *force majeure* exception should also apply to interconnection customers when they fail to meet deadlines.¹⁸⁴⁰

940. Many commenters argue that the Commission should extend exemptions beyond *force majeure*, such as to events outside the transmission provider's control or for good cause.¹⁸⁴¹ NARUC and National Grid argue that transmission providers should have an opportunity to request a penalty exemption on a case-by-case basis.¹⁸⁴² NESCOE argues that the Commission should provide a list of presumptive no-fault delays.¹⁸⁴³

(h) Requests for Alternatives, Clarification, or Technical Conference

941. A number of commenters suggest that the Commission evaluate whether the other reforms are successful before implementing a penalty regime.¹⁸⁴⁴

¹⁸³⁶ Duke Southeast Utilities Initial Comments at 11.

¹⁸³⁷ ACE-NY Initial Comments at 13; AEE Initial Comments at 32; Cypress Creek Initial Comments at 24.

¹⁸³⁸ Cypress Creek Initial Comments at 24; Google Reply Comments at 3.

¹⁸³⁹ Invenergy Initial Comments at 31–32.

¹⁸⁴⁰ CREA and NewSun Initial Comments at 84–85.

¹⁸⁴¹ Indicated PJM TOs Initial Comments at 42; MISO TOs Initial Comments at 25; National Grid Initial Comments at 32; NESCOE Initial Comments at 16; NYISO Initial Comments at 42; PPL Initial Comments at 19; SoCal Edison Initial Comments at 19; Tri-State Initial Comments at 18; WIRES Initial Comments at 10; Xcel Initial Comments at 38.

¹⁸⁴² NARUC Initial Comments at 21; National Grid Initial Comments at 33.

¹⁸⁴³ NESCOE Initial Comments at 16.

¹⁸⁴⁴ AEP Initial Comments at 29; Avangrid Reply Comments at 14; Clean Energy Buyers Initial Comments at 10–11; Eversource Initial Comments at 30–31; Idaho Power Initial Comments at 10; ISO/RTO Council Reply Comments at 5; Longroad Energy Reply Comments at 15; NY Commission and NYSEDA Initial Comments at 6; NYISO Initial Comments at 30; Pacific Northwest Utilities Initial Comments at 9–10; PacifiCorp Initial Comments at 34; Puget Sound Initial Comments at 11; State Agencies Initial Comments at 14; TAPS Initial Comments at 9.

NYTOs and Eversource similarly ask that the Commission allow the changes in the ANOPR to take effect before imposing penalties.¹⁸⁴⁵ Some commenters suggest that the Commission hold a technical conference prior to penalties becoming effective to discuss experiences with the new cluster study process and focus the penalties on the causes of delays.¹⁸⁴⁶ SPP and NYISO also note that some transmission providers are undergoing their own interconnection queue reform efforts; therefore, the Commission should focus on ensuring those efforts are successful instead of imposing automatic penalties.¹⁸⁴⁷ TAPS suggests that the Commission delay implementation of penalties by at least five years from the effective date of compliance filings to the final rule.¹⁸⁴⁸

942. NARUC argues that any penalty structure should be applied equally to transmission providers delaying interregional affected system studies and seeks clarification on how penalties will be assessed when delays are caused by affected systems.¹⁸⁴⁹

943. Some commenters suggest that, instead of or in addition to penalties, the Commission could improve reporting by issuing Commission staff reports or requiring additional reporting from transmission providers.¹⁸⁵⁰ Indicated PJM TOs explain that the Commission or an interested party could initiate an FPA section 206 proceeding if it believes PJM is not exercising due diligence in performing studies based on its reporting.¹⁸⁵¹ In response to arguments that entities could pursue FPA section 206 filings before the Commission if they believe

¹⁸⁴⁵ Eversource Initial Comments at 30–31; NYTOs Initial Comments at 23–24.

¹⁸⁴⁶ ISO/RTO Council Initial Comments at 9; NARUC Initial Comments at 15–22; NESCOE Reply Comments at 14; PJM Initial Comments at 9; TAPS Initial Comments at 9.

¹⁸⁴⁷ NYISO Initial Comments at 30; SPP Initial Comments at 14–15.

¹⁸⁴⁸ TAPS Initial Comments at 9.

¹⁸⁴⁹ NARUC Initial Comments at 14, 17.

¹⁸⁵⁰ *Id.* at 16; AEE Initial Comments at 32–33; AEE Reply Comments at 32; APPA–LPPC Initial Comments at 23; Avangrid Initial Comments at 31; Bonneville Initial Comments at 16; Clean Energy Associations Initial Comments at 47; Clean Energy Buyers Initial Comments at 11; CREA and NewSun Initial Comments at 85–86; EPSA Initial Comments at 11; Fervo Energy Initial Comments at 6; Google Reply Comments at 4; MISO TOs Initial Comments at 27; National Grid Initial Comments at 31–32; NESCOE Reply Comments at 14; NYISO Initial Comments at 31, 43; NYISO Reply Comments at 10; NYTOs Initial Comments at 23; OMS Initial Comments at 15; PacifiCorp Initial Comments at 35; PacifiCorp Reply Comments at 6; Pine Gate Initial Comments at 41; PG&E Initial Comments at 4, 9; R Street Initial Comments at 14; Shell Initial Comments at 11; TAPS Initial Comments at 9; UMPA Initial Comments at 7.

¹⁸⁵¹ Indicated PJM TOs Initial Comments at 41.

¹⁸²⁷ Consumers Energy Initial Comments at 6; NEPOOL Initial Comments at 16; Pine Gate Initial Comments at 38.

¹⁸²⁸ Consumers Energy Initial Comments at 7.

¹⁸²⁹ AEE Reply Comments at 30–31.

¹⁸³⁰ AEE Initial Comments at 31–32.

¹⁸³¹ NARUC Initial Comments at 15.

¹⁸³² NYISO Initial Comments at 42.

¹⁸³³ Indicated PJM TOs Initial Comments at 42.

¹⁸³⁴ Tri-State Initial Comments at 19.

¹⁸³⁵ SoCal Edison Initial Comments at 18.

reasonable efforts have been violated, New Jersey Commission argues that study delays result from systemic failures, so it is inappropriate to address such issues through individual FPA section 206 filings.¹⁸⁵²

944. MISO proposes that, if a transmission provider misses a deadline by more than a threshold grace period, the transmission provider should be required to self-report the circumstances around the delay to the Commission, and, in response to that self-report, the Commission could issue a show cause order to require the transmission provider and any other relevant entities to respond with specific information about the causes for the delays and propose a mitigation plan.¹⁸⁵³ MISO states that, at the conclusion of the show cause proceeding, the Commission would issue an order that could require transmission providers, transmission owners, or other entities to take specific actions to mitigate the delay, require process changes, and/or impose penalties.¹⁸⁵⁴ MISO argues that its proposal has several advantages over the NOPR penalty proposal, including providing accountability tied to entities actually causing the delay, as determined by the Commission. Public Interest Organizations support the self-reporting concept but do not support conditioning penalty assignment on a show cause proceeding, arguing that this would be administratively burdensome.¹⁸⁵⁵ AEE also states that MISO's approach could be helpful if paired with binding timelines and a clear penalty structure.¹⁸⁵⁶

945. Clean Energy Associations suggest that, if the Commission does not adopt penalties, it should consider requiring remedial action plans, including specific staffing plans, for transmission providers with persistently late or inaccurate studies.¹⁸⁵⁷

946. Some commenters argue that the Commission should incentivize transmission providers to meet deadlines rather than penalize them for failing to do so.¹⁸⁵⁸ Shell proposes that

the Commission provide favorable rate treatment for transmission providers that meet study timeliness conditions; specifically, Shell suggests that the Commission create a rebuttable presumption that transmission providers can recover their investments in interconnection queue processing resources if the transmission provider satisfies deadlines at least 90% of the time over two years.¹⁸⁵⁹ Shell further suggests that these costs can be eligible for inclusion in transmission rate base, with corresponding return on equity, if the transmission provider meets study deadlines at least 95% of the time over two calendar years.¹⁸⁶⁰ Affected Interconnection Customers propose that the Commission allow RTOs/ISOs to create a monetary incentive for transmission owners that complete their interconnection studies on time.¹⁸⁶¹

947. However, R Street notes that rate incentives, like bonuses on returns on equity, would induce financial motivation but would require a performance baseline that transmission owners could game.¹⁸⁶² MISO TOs argue that incentives would fail because study delays are caused by factors beyond transmission providers' control.¹⁸⁶³

948. ACE-NY requests that the Commission clarify whether a failure to meet the *pro forma* LGIP study deadlines would constitute a tariff violation, which could have implications for executive and staff compensation.¹⁸⁶⁴ MISO TOs argue that such a proposal has no basis and would constitute an even stricter standard because penalties for tariff violations can amount to over \$1 million per day, exceeding the proposed \$500 per day proposal.¹⁸⁶⁵

949. Clean Energy States and TAPS recommend tying executive compensation to interconnection queue deadlines,¹⁸⁶⁶ noting that SPP and MISO currently tie compensation to reliability performance.¹⁸⁶⁷ However, MISO TOs note that the Commission

has previously found that it lacks such jurisdiction.¹⁸⁶⁸

950. Some commenters argue that the Commission should allow transmission providers to set their own deadlines for interconnection studies because the current deadlines are not reasonable or advocate for regional flexibility.¹⁸⁶⁹ Some commenters recommend allowing transmission providers to adjust study deadlines based on interconnection queue size.¹⁸⁷⁰ Public Interest Organizations and Google support such proposals to the extent that the deadlines are subject to Commission review.¹⁸⁷¹ AEE does not oppose giving transmission providers flexibility to set their study timelines but requests that the Commission set a maximum allowable study timeline.¹⁸⁷²

951. National Grid suggests that the Commission adopt a minimum time frame approach, which would start the overall interconnection study timeline upon finalizing the base case study models and provide minimum study time frames for scope and result reviews.¹⁸⁷³

952. PJM suggests that the transmission provider develop a targeted study completion date based on an analysis of that particular interconnection queue, with the target completion date available for public comment.¹⁸⁷⁴ PJM states that, under this approach, as studies become delayed further and further past the target date, the transmission provider would be required to meet increasing burdens (e.g., public posting of the missed date, filing a report with the Commission, being subject to FPA section 206 action). PJM states that if, despite the FPA section 206 action, the transmission provider misses a subsequent study deadline at the same level, then the Commission could impose penalties for any proven malfeasance by the transmission provider. PJM also suggests that the Commission could allow transmission providers to cap the number of interconnection requests in a given cluster to an amount commensurate with available resources. In response, AEE argues that PJM's

¹⁸⁵² New Jersey Commission Reply Comments at 5.

¹⁸⁵³ MISO Initial Comments at 79–80; *see also* MISO TOs Initial Comments at 27 (explaining that targeted intervention through a show cause order is more appropriate than broadly applicable penalties).

¹⁸⁵⁴ MISO Initial Comments at 80–81.

¹⁸⁵⁵ Public Interest Organizations Reply Comments at 8–9.

¹⁸⁵⁶ AEE Reply Comments at 38.

¹⁸⁵⁷ Clean Energy Associations Initial Comments at 45.

¹⁸⁵⁸ *Id.* at 46; ACE-NY Initial Comments at 14 (recommending a structure with both penalties and incentives); Affected Interconnection Customers Initial Comments at 26 (same); CREA and NewSun

Reply Comments at 57 (same); Shell Initial Comments at 10; Longroad Energy Reply Comments at 14; Vermont Electric and Vermont Transco Initial Comments at 2.

¹⁸⁵⁹ Longroad Energy Reply Comments at 14–15; Shell Initial Comments at 11.

¹⁸⁶⁰ Shell Initial Comments at 11.

¹⁸⁶¹ Affected Interconnection Customers Initial Comments at 29–30.

¹⁸⁶² R Street Initial Comments at 15.

¹⁸⁶³ MISO TOs Reply Comments at 15–16.

¹⁸⁶⁴ ACE-NY Initial Comments at 13.

¹⁸⁶⁵ MISO TOs Reply Comments at 14 (citing 16 U.S.C. 825o–1).

¹⁸⁶⁶ Clean Energy States Initial Comments at 10–11; CREA and NewSun Reply Comments at 57; TAPS Initial Comments at 8.

¹⁸⁶⁷ TAPS Initial Comments at 8.

¹⁸⁶⁸ MISO TOs Reply Comments at 15.

¹⁸⁶⁹ APPA–LPPC Initial Comments at 21; Bonneville Initial Comments at 16; Indicated PJM TOs Reply Comments at 39; ISO–NE Initial Comments at 35–37; NY Commission and NYSEDA Initial Comments at 5; NYISO Initial Comments at 29, 33.

¹⁸⁷⁰ Bonneville Initial Comments at 16; Google Reply Comments at 5; NYISO Initial Comments at 29; SEIA Reply Comments at 17.

¹⁸⁷¹ Public Interest Organizations Reply Comments at 9.

¹⁸⁷² AEE Reply Comments at 38.

¹⁸⁷³ National Grid Initial Comments at 31.

¹⁸⁷⁴ PJM Initial Comments at 59–61.

proposed approach would cause unnecessary administrative burden, which could further harm interconnection customers.¹⁸⁷⁵

953. Some commenters claim that the NOPR proposal is vague and raises profound implementation issues (e.g., how or whether the penalty structure will accommodate different cluster sizes, study complexities, or restudies).¹⁸⁷⁶ R Street suggests, and ISO/RTO Council agrees, that the Commission and stakeholders would benefit from a root cause analysis to identify the cause of study delays, which could inform more reasonable performance expectations.¹⁸⁷⁷

954. Some commenters seek clarity regarding who bears financial penalties for late affected system studies and related affected system obligations.¹⁸⁷⁸ ENGIE states that it is unclear who bears the financial penalties for late affected system studies.¹⁸⁷⁹ In contrast, MISO interprets the NOPR proposal to apply penalties only to the affected system operator, though MISO also recommends that the Commission recognize that some delays may be beyond the control of the affected system operator and recommends that affected system operators not be penalized for third-party delays.¹⁸⁸⁰ Similarly, Duke Southeast Utilities express concern that penalties could be levied against affected system operators for delays beyond their control and further argue that, instead of unilaterally imposing financial penalties on one entity, which, to Duke Southeast Utilities, seems arbitrary and unfounded, the Commission should consider imposing multilateral penalties on all entities in accordance with their individual obligations set forth in the proposed process.¹⁸⁸¹

955. Cypress Creek suggests that, in addition to financial penalties for missed study deadlines, the Commission should also impose penalties for inaccurate study results.¹⁸⁸² AEE and Clean Energy Associations argue that the Commission should provide guidelines and reporting requirements regarding acceptable study accuracy.¹⁸⁸³

956. CREA and NewSun propose an overall “reasonableness” standard to ensure the quality of the studies and that there is no ongoing failure to provide adequate staffing or to employ reasonable study assumptions.¹⁸⁸⁴

957. National Grid argues that the Commission should permit transmission providers to assign a dedicated person to monitor the progress of each entity (i.e., interconnection customer, transmission owner, and RTO/ISO) during the interconnection process.¹⁸⁸⁵ National Grid argues that the cost of this person and any other additional costs needed to satisfy the NOPR proposal should be recoverable in rates so that transmission providers would be able to recover costs incurred to reduce penalty risk.

958. Some commenters suggest that the Commission allow third-party consultants to complete studies, which would conserve transmission provider resources and provide a pathway for interconnection customers to move forward.¹⁸⁸⁶ Dominion argues in response that there is a general lack of qualified professionals to perform interconnection studies, so a third party will not have access to the personnel, knowledge, or resources to perform them.¹⁸⁸⁷

959. Pacific Northwest Utilities argue that the reasonable efforts standard should not be eliminated for facilities studies, which require an individual study, noting that the number of facilities studies needed can vary greatly between clusters.¹⁸⁸⁸

960. NYISO suggests that the Commission adopt features of the NERC model, including the use of non-financial sanctions for minor or excusable violations and penalty reductions for cooperative and remedial actions.¹⁸⁸⁹

961. Tri-State supports the NOPR proposal not to assess financial penalties until one cluster study cycle (that is not a transitional study cycle) after the compliance effective date. Tri-State seeks clarification on when penalties would be imposed for transmission providers already using a cluster study process.¹⁸⁹⁰

c. Commission Determination

962. We adopt the NOPR proposal to eliminate the reasonable efforts standard set forth in sections 2.2, 3.5.4(i), 7.4, 8.3, and Attachment A to Appendix 4 of the *pro forma* LGIP. In its place, we adopt the NOPR proposal, with modification, to add new section 3.9 to the *pro forma* LGIP that imposes study delay penalties, as further discussed below: delays of cluster studies beyond the tariff-specified deadline will incur a penalty of \$1,000 per business day; delays of cluster restudies beyond the tariff-specified deadline will incur a penalty of \$2,000 per business day; delays of affected system studies beyond the tariff-specified deadline will incur a penalty of \$2,000 per business day; and delays of facilities studies beyond the tariff-specified deadline will incur a penalty of \$2,500 per business day.¹⁸⁹¹

963. As explained in greater detail in this section, we adopt the following features of the study delay penalty structure for late interconnection studies: (1) no study delay penalties will be assessed until the third cluster study cycles (including any transitional cluster study cycle, but not transitional serial studies) after the Commission-approved effective date of the transmission provider's filing in compliance with this final rule; (2) there will be a 10-business day grace period, such that no study delay penalties will be assessed for a study that is delayed by 10 business days or fewer; (3) deadlines may be extended for a particular study by 30 business days by mutual agreement of the transmission provider and all interconnection customers with interconnection requests in the relevant study; (4) study delay penalties will be capped at 100% of the initial study deposits received for all of the interconnection requests in the cluster for cluster studies and cluster restudies, 100% of the initial study deposit received for the single interconnection request in the study for facilities studies, and 100% of the study deposit(s) that the transmission provider acting as an affected system operator

¹⁸⁷⁵ AEE Reply Comments at 38–39.

¹⁸⁷⁶ EEI Reply Comments at 17; Eversource Initial Comments at 20, 28.

¹⁸⁷⁷ ISO/RTO Council Reply Comments at 5; R Street Initial Comments at 14.

¹⁸⁷⁸ Duke Southeast Utilities Initial Comments at 17–18; ENGIE Initial Comments at 9; MISO Initial Comments at 92.

¹⁸⁷⁹ ENGIE Initial Comments at 9. Additionally, ENGIE states that transmission owners typically have responsibilities for affected system studies and, therefore, argues that the Commission should consider language that distributes financial risk and penalties to both transmission owners and transmission providers, including an ability for transmission providers to recover costs from transmission owners. *Id.*

¹⁸⁸⁰ MISO Initial Comments at 92. WAPA also is generally concerned about the imposition of monetary penalties for failure to meet deadlines and questions whether federal agencies like WAPA should or even can be subject to monetary penalties. *See* WAPA Initial Comments at 10, 14.

¹⁸⁸¹ Duke Southeast Utilities Initial Comments at 17–18.

¹⁸⁸² Cypress Creek Initial Comments at 23.

¹⁸⁸³ AEE Initial Comments at 34; Clean Energy Associations Initial Comments at 47.

¹⁸⁸⁴ CREA and NewSun Initial Comments at 85.

¹⁸⁸⁵ National Grid Initial Comments at 33.

¹⁸⁸⁶ AEE Initial Comments at 34; Clean Energy Associations Initial Comments at 46; Public Interest Organizations Reply Comments at 4; SEIA Initial Comments at 33.

¹⁸⁸⁷ Dominion Reply Comments at 19–20.

¹⁸⁸⁸ Pacific Northwest Utilities Initial Comments at 11–12.

¹⁸⁸⁹ NYISO Initial Comments at 41–42.

¹⁸⁹⁰ Tri-State Initial Comments at 19.

¹⁸⁹¹ The penalties that we adopt in this final rule in section 3.9 of the *pro forma* LGIP for late affected system studies only apply to affected system operators that are public utilities.

(affected system transmission provider) collects for conducting the affected system study; (5) transmission providers will have the ability to appeal any study delay penalties to the Commission, with the Commission determining whether good cause exists to grant the relief requested on appeal; (6) transmission providers must distribute study delay penalties to interconnection customers in the relevant study on a pro rata per interconnection request basis to offset their study costs; (7) non-RTO/ISO transmission providers and transmission-owning members of RTOs/ISOs may not recover study delay penalties through transmission rates; (8) RTOs/ISOs may submit an FPA section 205 filing to propose a default structure for recovering study delay penalties and/or to recover the costs of any specific study delay penalties;¹⁸⁹² (9) transmission providers must pay the penalty for each late study on a pro rata basis per interconnection request to all interconnection customers or affected system interconnection customers included in the relevant study that did not withdraw, or were not deemed withdrawn, from the interconnection queue before the missed study deadline; and (10) transmission providers must post quarterly on their OASIS or other publicly accessible website (a) the total amount of study delay penalties from the previous reporting quarter and (b) the highest study delay penalty paid to a single interconnection customer in the previous reporting quarter. We also add new paragraph (f)(1)(ii) to 18 CFR 35.28 to specify that any public utility that conducts interconnection studies shall be liable for and eligible to appeal penalties following that public utility's failure to complete an interconnection study by the appropriate deadline. We also decline to adopt the NOPR's proposed *force majeure* penalty exception. We first discuss our overarching rationale for this set of reforms, and then discuss each of these reforms in greater detail and our rationale for each.

964. We adopt these reforms to remedy the unjust and unreasonable rates stemming from interconnection queue backlogs and to ensure that interconnection customers are able to interconnect to the transmission system in a reliable, efficient, transparent, and timely manner. Specifically, these reforms will help ensure more timely processing of interconnection requests

by incentivizing transmission providers to meet interconnection study deadlines.¹⁸⁹³

i. Eliminating the Reasonable Efforts Standard

965. We adopt the NOPR proposal to eliminate the reasonable efforts standard set forth in sections 2.2, 3.5.4(i), 7.4, 8.3, and Attachment A to Appendix 4 of the *pro forma* LGIP. In these revised sections, we specifically eliminate the reasonable efforts standard for conducting cluster studies, cluster restudies, facilities studies, and affected system studies.

966. The lengthy interconnection study delays and interconnection queue backlogs throughout the country support our conclusion that the reasonable efforts standard does not provide an adequate incentive for transmission providers to complete interconnection studies on time. As discussed in section II above, transmission providers are experiencing significant interconnection queue backlogs, as evidenced, for example, by their Order No. 845 reports.¹⁸⁹⁴ There is every reason to believe that many of the factors contributing to significant interconnection queue backlogs and delay—including the rapidly changing resource mix, market forces, and emerging technologies—will persist. In response to those ongoing challenges, we find that it is just, reasonable, and not unduly discriminatory or preferential to eliminate the reasonable efforts standard and adopt a penalty structure that reasonably incentivizes transmission providers to ensure the timely processing of interconnection requests. We note that we are not finding that transmission providers have

necessarily acted in bad faith or that their actions are the sole reason for the queue delays. Indeed, throughout this final rule, we adopt numerous reforms to appropriately incentivize interconnection customers to help reduce interconnection delays that may result from their conduct. Nevertheless, we find that the elimination of the reasonable efforts standard and the adoption of penalties for late studies are needed to create an incentive for transmission providers, which will help reduce interconnection delays and ensure that Commission-jurisdictional rates are just, reasonable, and not unduly discriminatory or preferential.

967. The reasonable efforts standard worsens current-day challenges, as it fails to ensure that transmission providers are keeping pace with the changing and complex dynamics of today's interconnection queues. Contrary to the assertions of some commenters, we believe that there are steps within transmission providers' control, from deploying transmission providers' resources to exploring administrative efficiencies and innovative study approaches,¹⁸⁹⁵ to better ensure timely processing of interconnection studies to remedy existing deficiencies.

968. As discussed above, we adopt several reforms to address speculative interconnection requests by imposing stricter requirements on interconnection customers for entering and remaining in the interconnection queue (e.g., site control requirements, commercial readiness deposits, and withdrawal penalties). We also adopt reforms to improve the efficiency of interconnection studies and interconnection queue processing for all transmission providers (e.g., first-ready, first-served cluster study process). In this section, we adopt reforms to ensure that transmission providers are doing their part as well by eliminating the reasonable efforts standard and imposing study delay penalties on transmission providers when they fail to meet the interconnection study deadlines we adopt in this final rule. Based on the record, we find that the elimination of the reasonable efforts standard and its replacement with firm deadlines and penalties are needed to remedy unjust and unreasonable rates

¹⁸⁹³ Invenergy Initial Comments at 30; Iowa Commission Initial Comments at 5–6 (“RTOs/ISOs need to prioritize interconnection studies and need to hold their employees and/or outside entities responsible for delays”); SEIA Initial Comments at 32.

¹⁸⁹⁴ See appendix B to this final rule (showing that over 2,800 interconnection studies were delayed as of the end of the fourth quarter (Q4) 2022 and that over 1,900 interconnection studies were delayed as of the end of Q4 2021); see also Queued Up 2023 at 6 (showing growth in number of interconnection requests from 2013 to 2022) and Queued Up 2023 at 3 (noting that generating facilities built in 2008 spent, on average, less than two years in interconnection queues, whereas generating facilities built in 2022 spent, on average, five years in interconnection queues). Although some commenters argue that Order No. 845 data do not provide sufficient support (AEP Initial Comments at 25–26; MISO Initial Comments at 72), the data demonstrate that interconnection queue delays have continued to worsen over recent years and industry reports have similarly concluded that interconnection queues are seeing increasingly severe delays. We cite evidence that contradicts such comments and that, instead, supports our findings. See, e.g., *supra* section II.C.

¹⁸⁹² We note that the typical standard of review under FPA section 205 would apply to these filings: i.e., the filer must show that any proposal to recover study delay penalties is just, reasonable, and not unduly discriminatory or preferential. See 16 U.S.C. 824d.

¹⁸⁹⁵ See Public Interest Organizations Reply Comments at 4 (“any claim that an individual transmission provider has done absolutely everything in its power to improve the processing rate of interconnection requests . . . almost certainly comes from a lack of imagination”); R Street Initial Comments at 14 (explaining that advances in computing fields have the potential to reduce queue processing times).

and ensure that interconnection customers are able to interconnect to the transmission system in a reliable, efficient, transparent, and timely manner. Thus, we disagree with commenters that contend that the reasonable efforts standard continues to be appropriate or that the Commission's past orders, including Order No. 845, mean that the reasonable efforts standard continues to ensure just and reasonable rates.¹⁸⁹⁶

969. We similarly disagree with commenters that support eliminating the reasonable efforts standard but that do not support imposing study delay penalties on transmission providers for failing to meet interconnection study deadlines.¹⁸⁹⁷ We do not believe that this result would remedy the unjust and unreasonable rates, nor would it ensure that interconnection customers are able to interconnect to the transmission system in a reliable, efficient, transparent, and timely manner by aligning incentives properly.

970. As we are eliminating the reasonable efforts standard, we also must adopt a replacement rate that remedies the problems just described. The sections below set forth a study delay penalty structure and why we believe it is justified. In short, we adopt provisions in the *pro forma* LGIP that impose firm interconnection study deadlines and corresponding study delay penalties on transmission providers that fail to meet those deadlines.

971. Interconnection customers face financial harm when study deadlines are not met, ultimately inhibiting their ability to interconnect to the transmission system in a reliable, efficient, transparent, and timely manner. We find that holding transmission providers to firm interconnection study deadlines is likely to accelerate the interconnection study process and provide greater certainty to interconnection customers, allowing them to make more informed business decisions around whether to proceed with or withdraw from the interconnection queue, which will also ultimately improve interconnection

queue management and remedy the unjust and unreasonable rates otherwise created by study delays.

972. At the same time, we do not believe that the study delay penalty structure that we adopt in this final rule is unduly harsh for transmission providers, either in penalty amount or the form of its application. The study delay penalty structure adopted in this final rule balances the harm to interconnection customers of interconnection study delays and the associated need to incentivize transmission providers to timely complete interconnection studies with the burdens on transmission providers of conducting interconnection studies and potentially facing penalties for delays, including those that may be caused or exacerbated by factors beyond their control. In particular, we adopt the following safeguards for transmission providers: (1) a transition period rather than imposing study delay penalties as soon as transmission providers begin implementing the reforms in this final rule; (2) a 10-business day grace period where no study delay penalties will be assessed; (3) a provision that allows a 30-business day deadline extension upon mutual agreement of the transmission provider and interconnection customers; (4) caps on study delay penalties; and (5) a transmission provider ability to appeal. We also adopt provisions governing distribution of study delay penalties to interconnection customers and prohibiting recovery of study delay penalties through transmission rates, along with transparency-related posting requirements to the benefit of interconnection customers and consumers alike. We believe that the study delay penalty structure adopted herein aligns transmission provider and interconnection customer incentives while providing appropriate built-in flexibility and safeguards for transmission providers, thereby achieving a balance that ensures just and reasonable rates and ensures that interconnection customers are able to interconnect to the transmission system in a reliable, efficient, transparent, and timely manner.

ii. Penalty Amount

973. We modify the *pro forma* LGIP to adopt a study delay penalty structure whereby penalties increase through the interconnection study process. Delays of cluster studies beyond the tariff-specified deadline will incur a penalty of \$1,000 per business day; delays of cluster restudies beyond the tariff-specified deadline will incur a penalty of \$2,000 per business day; delays of

affected system studies beyond the tariff-specified deadline will incur a penalty of \$2,000 per business day; and delays of facilities studies beyond the tariff-specified deadline will incur a penalty of \$2,500 per business day.

974. We agree with the numerous commenters who argue that the NOPR penalty proposal of \$500 per business day is too low to create an incentive for transmission providers to meet study deadlines.¹⁸⁹⁸ We find it necessary to modify the NOPR proposal to establish a higher penalty amount and a structure of increasing penalties that reflects the greater harm caused by delayed studies at later interconnection stages.

975. We reach this conclusion for several reasons. First, we find persuasive the comments asserting that a penalty of \$500 per business day is insufficient to incentivize transmission provider actions that will reduce the incidence of study delays.¹⁸⁹⁹ At \$500 per business day, a study that is delayed by six months—or roughly 126 business days—would produce a penalty of only \$63,000. We view such a penalty as insufficient considering that the purpose of the penalty is to incentivize timely study completion that may be achieved, for example, by hiring additional personnel or investing in new software.

976. Some commenters advocate for penalty amounts that more closely approximate the costs that delays impose in interconnection

¹⁸⁹⁶ ACE–NY Initial Comments at 12; Affected Interconnection Customers Initial Comments at 24–26; CESA Initial Comments at 11; CESA Reply Comments at 8–9; Clean Energy Associations Initial Comments at 44; Consumers Energy Initial Comments at 6; CREA and NewSun Reply Comments at 56; Cypress Creek Initial Comments at 24; ELCON Initial Comments at 7–8; EPSA Initial Comments at 11; Fervo Energy Initial Comments at 6; Invenery Initial Comments at 29; NARUC Initial Comments at 14; Pine Gate Initial Comments at 39.

¹⁸⁹⁹ See, e.g., Invenery Initial Comments at 29–30 (“[T]he proposed penalty amount is woefully insufficient to create any real incentive” . . . “While a study that is six months late may severely impact an interconnection customer’s development efforts, it would amount to only a \$90,000 penalty, which is *de minimis* for transmission providers which may have annual revenues of \$25 billion if not more”); Affected Interconnection Customers Initial Comments at 24–25 (“[A] \$500 per day penalty imposed upon transmission providers with hundreds of millions, if not billions of dollars of transmission assets, is a drop in the bucket that will be highly unlikely to deter continued missed interconnection study deadlines”); Cypress Creek Initial Comments at 24 (“[P]enalties should . . . be substantially larger so that they serve as meaningful deterrents to delayed and inaccurate study results”); Pine Gate Initial Comments at 39 (“A daily penalty rate that is too low will do little to incentivize transmission providers to complete studies in a timely manner, even in a situation where the penalty equals the full 100 percent of total study deposits received”).

¹⁸⁹⁶ See, e.g., Avangrid Initial Comments at 10, 30–31; Bonneville Initial Comments at 16; EEI Reply Comments at 16; Indicated PJM TOs Initial Comments at 36; MISO TOs Reply Comments at 6–7; NYISO Initial Comments at 30–31; PG&E Reply Comments at 3–4; WIRES Initial Comments at 10.

¹⁸⁹⁷ CAISO Initial Comments at 25–26; Clean Energy Buyers Initial Comment at 9–10; MISO Initial Comments at 13, 71, 79; Shell Initial Comments at 10; see also NARUC Initial Comments at 13–14, 20; Pennsylvania Commission Initial Comments at 2–3 (supporting the proposal to eliminate the reasonable efforts standard but taking no position on the need for monetary penalties).

customers,¹⁹⁰⁰ while others propose penalty amounts ranging from \$2,500 per day to \$7,000 per day.¹⁹⁰¹ Based on the record before us, we believe the \$1,000/\$2,000/\$2,500 per business day penalty structure, combined with the transition, grace period, cap on penalties, and ability to appeal that we adopt below, strikes an appropriate balance because it creates an incentive for transmission providers to meet study deadlines while not being overly punitive.

977. Second, adopting progressively higher penalty amounts for delayed cluster restudies and facilities studies reflects the progressively greater harm to interconnection customers of delayed studies at those later stages—at which they will have made greater investments in advancing their projects toward commercial development through steps such as obtaining site control, securing permits, and contracting for equipment. This is especially true given the new site control requirements, commercial readiness deposits, and withdrawal penalties we adopt in this final rule, which also become increasingly stringent as the study process progresses. These reforms will require that interconnection customers have greater capital at risk at each stage to affirm their commitment to reaching commercial operation. We find it appropriate that transmission providers face study delay penalties structured in a similar manner to provide adequate incentives to complete interconnection studies on time.

978. Third, the penalty structure we adopt here will impose more stringent study delay penalties at later stages when reasons for study delays should be fewest. That is, we expect the volume of interconnection requests to decrease as they progress through the study process, with fewer interconnection requests reaching the cluster restudy and facilities study stages. This reduction in volume will reduce the likelihood transmission providers are unable to complete those studies on time. We find it reasonable to hold transmission providers most accountable for timely study completion in the stages where delays should be most avoidable.

iii. Transition

979. We modify proposed section 3.9(6) of the *pro forma* LGIP, which provided that no study delay penalties shall be assessed until one cluster study

cycle (that is not a transitional study cycle) after the Commission-approved effective date of the transmission provider's filing in compliance with this final rule. Instead, we modify that section to provide that no study delay penalties shall be assessed until the third cluster study cycle after the Commission-approved effective date of the compliance filing (including any transitional cluster study cycle, but not transitional serial studies).¹⁹⁰² We believe that giving transmission providers time to adapt to the new processes without imposing study delay penalties immediately will help ensure that transmission providers' implementation of this final rule has begun to reduce backlogged interconnection queues: *i.e.*, we expect transmission providers to meet the interconnection study deadlines once they are implementing the cluster study process, with the increased requirements on interconnection customers (*e.g.*, site control requirements, commercial readiness deposits, and withdrawal penalties) to help prevent speculative interconnection requests from entering and remaining in the interconnection queue.

980. We adopt Duke Southeast Utilities' request to specify that transmission providers already using a cluster study process will not be subject to penalties until the third cluster study cycle after the Commission-approved effective date of the transmission provider's filing in compliance with this final rule.¹⁹⁰³ We agree that transmission providers that already use a cluster study process should not be incentivized to employ an unnecessary transition process in response to this final rule simply to delay the possibility of study delay penalties. Accordingly, we modify the NOPR proposal such that no transmission providers will be assessed study delay penalties until the third cluster study cycle after the Commission-approved effective date of the compliance filing.

iv. Grace Period

981. In addition to adopting a study delay penalty amount that we believe balances incentivizing transmission providers while not being overly punitive, we adopt in *pro forma* LGIP section 3.9(4) a 10-business day grace period, such that no study delay penalties will be assessed for a study that is delayed by 10 business days or

fewer, and if the study is delayed by more than 10 business days, the penalty amount will be calculated from the first business day the transmission provider exceeds the applicable study deadline. We believe that this 10-business day grace period will provide an appropriate level of flexibility for transmission providers to address unforeseen circumstances or complexities that arise in the study process. We also believe that this grace period will lessen any administrative burden associated with the appeals process or RTO/ISO recovery of study delay penalty costs, as studies with short delays will not incur study delay penalties that may trigger appeals filings or the need for RTO/ISO penalty recovery.

v. Study Deadline Extension

982. We adopt the NOPR proposal in *pro forma* LGIP section 3.9(5) to allow extensions of the deadline for a particular study by 30 business days by mutual agreement of the transmission provider and all interconnection customers with interconnection requests in the relevant study. We believe that this reform will promote cooperation between transmission providers and interconnection customers and incentivize transmission providers to keep interconnection customers informed of the status of study processes.

983. We decline to adopt AEE's suggestion to require transmission providers to publicly post when a study deadline is extended by mutual agreement.¹⁹⁰⁴ We do not find it necessary to require such public posting because transmission providers are being given sufficient incentive to minimize delays and manage all interconnection studies fairly. We also decline to adopt NARUC's suggestion to require transmission providers to certify that extensions will not delay unrelated interconnection requests outside the cluster.¹⁹⁰⁵ Transmission providers will be sufficiently incentivized to ensure that such extensions do not delay other studies because any such delays may incur study delay penalties, as described in this section. In response to commenters that argue that it will be difficult to obtain mutual agreement in large regions, we do not view that as a reason to decline to adopt or to modify the proposal.¹⁹⁰⁶ If an interconnection study is delayed, and mutual agreement cannot be obtained, the transmission provider will be assessed the

¹⁹⁰⁰ Cypress Creek Initial Comments at 24; Pine Gate Initial Comments at 39–40.

¹⁹⁰¹ ACE–NY Initial Comments at 12; Affected Interconnection Customers Initial Comments at 5, 26; CESA Reply Comments at 9; Invenergy Initial Comments at 30.

¹⁹⁰² See *supra* section III.A.7.c regarding the transition to the cluster study process.

¹⁹⁰³ Duke Southeast Utilities Initial Comments at 11.

¹⁹⁰⁴ AEE Initial Comments at 31–32.

¹⁹⁰⁵ NARUC Initial Comments at 15.

¹⁹⁰⁶ Indicated PJM TOs Initial Comments at 42; Tri-State Initial Comments at 19.

corresponding study delay penalties and may file an appeal with the Commission to explain any relevant circumstances.

vi. Cap on Penalties

984. We modify proposed section 3.9(2) of the *pro forma* LGIP, which capped study delay penalties at 100% of the total study deposit received for the late interconnection study, to instead cap penalties at: (1) 100% of the initial study deposits received for all of the interconnection requests in the cluster for cluster studies and cluster restudies;¹⁹⁰⁷ (2) 100% of the initial study deposit received for the single interconnection request in the study for facilities studies; and (3) 100% of the study deposit(s) that the affected system transmission provider collects for conducting the affected system study. As discussed in the section III.A.2.6.a above, we modify the NOPR proposal and require transmission providers to collect a single study deposit from interconnection customers only upon entry into the cluster (initial study deposit), rather than a study deposit at each phase of the study process, as proposed in the NOPR. Accordingly, we modify the study delay penalty cap to reflect this change in the study deposit requirements. By tying the study delay penalty cap to the study deposits, we ensure that the maximum penalty bears a relationship to the costs of the study that was late and is not unnecessarily punitive.

985. In response to commenters who argue that study delay penalties should not be capped,¹⁹⁰⁸ or that the cap should be higher than 100% of the study deposits for the late interconnection study,¹⁹⁰⁹ we believe that imposing study delay penalties that exceed the amount of the study deposit collected for the late interconnection study will be unnecessarily punitive to transmission providers.

986. In response to Invenenergy's request for clarification, we confirm that the cap will not be impacted by any withdrawal penalties.¹⁹¹⁰

¹⁹⁰⁷ Under section 3.1.1.1 of the *pro forma* LGIP, initial study deposits will range from \$25,000 to \$250,000, depending on the size of the proposed generating facility.

¹⁹⁰⁸ ACE-NE Initial Comments at 13; AEE Reply Comments at 37; Consumers Energy Initial Comments at 6; CREA and NewSun Initial Comments at 84; Cypress Creek Initial Comments at 23–24; Public Interest Organizations Initial Comments at 35–36; SEIA Initial Comments at 34.

¹⁹⁰⁹ Interwest Initial Comments at 8; Invenenergy Initial Comments at 31; Northwest and Intermountain Initial Comments at 14.

¹⁹¹⁰ Invenenergy Initial Comments at 31.

vii. Ability To Appeal

987. We further modify the NOPR proposal to include, in section 3.9(3) of the *pro forma* LGIP, the ability for transmission providers to appeal any study delay penalties to the Commission.¹⁹¹¹ Any such appeal must be filed no later than 45 calendar days after the late study has been completed. The Commission will evaluate whether good cause exists to grant relief from the study delay penalty and will issue an order granting or denying relief. In evaluating whether there is good cause to grant such relief, the Commission may consider, among other factors: (1) extenuating circumstances outside the transmission provider's control, such as delays in affected system study results; (2) efforts of the transmission provider to mitigate delays; and (3) the extent to which the transmission provider has proposed process enhancements either in the stakeholder process or at the Commission to prevent future delays. The filing of an appeal will stay the transmission providers' obligation to distribute the study delay penalty funds to interconnection customers until 45 calendar days after (1) the deadline for filing a rehearing request has ended, if no requests for rehearing of the Commission's decision on the appeal have been filed, or (2) the date that any requests for rehearing of the Commission's decision on the appeal are no longer pending before the Commission.

988. By providing an appeal process, we balance the need to ensure that transmission providers have an incentive to meet interconnection study deadlines with protections to ensure that any such penalties are fair and not triggered if good cause justifies the delay. The protections embedded in this appeal process address commenters' concerns that there be adequate due process and/or fact-finding before imposing a study delay penalty on transmission providers.¹⁹¹²

989. In response to commenters that oppose study delay penalties because

¹⁹¹¹ We note that these appeals should not be filed under FPA section 206. *Contra Hanwha Q-CELLS USA Corp.*, 174 FERC ¶ 61,013, at PP 9–10 (2021) (interpreting CAISO's open access transmission tariff provision, which allows market participants that receive specific CAISO-imposed sanctions to obtain immediate review of CAISO's determination by directly appealing to the Commission "in accordance with [the Commission's] rules and procedures," as a reference to 18 CFR 385.206 and 385.218); *Mission Solar LLC*, 174 FERC ¶ 61,014, at PP 10–11 (2021); *Cal. Indep. Sys. Operator Corp.*, 184 FERC ¶ 61,009, at P 24 (2023).

¹⁹¹² Indicated PJM TOs Initial Comments at 43–44; ISO/RTO Council Initial Comments at 2; MISO Initial Comments at 15, 76; NYISO Initial Comments at 35–36.

interconnection study delays are often caused by factors outside transmission providers' control,¹⁹¹³ we note that the penalties adopted herein are an integral element of a just and reasonable replacement rate to ensure that transmission providers are properly incentivized to address these factors. We do not find it appropriate to impose penalties only where a factor can be conclusively demonstrated to be within a transmission provider's control, as this would impose significant administrative burden. It may be difficult to precisely determine the cause of any given delay, especially where delay occurs due to multiple factors. Further, transmission providers' concerns are addressed to some extent through the ability to appeal described above, which provides an opportunity for relief from any study delay penalties. Further, we note that many of the reforms adopted in this final rule will help to mitigate factors that may prolong the study process, such as the submission of speculative interconnection requests. In addition, the reforms adopted regarding affected system coordination—discussed later in this final rule—will address delays resulting from affected system studies. We disagree with Indicated PJM TOs that a complete *de novo* review is needed to assess study delay penalties.¹⁹¹⁴ We find that the good cause standard adopted in this final rule¹⁹¹⁵ provides an adequate framework through which the Commission can evaluate whether it is appropriate to grant relief from any applicable penalties.

viii. Distribution of Study Delay Penalties to Interconnection Customers

990. We adopt the NOPR proposal, with modification, set forth in *pro forma* LGIP section 3.9(1), to require transmission providers to distribute study delay penalties on a pro rata basis per interconnection request to the

¹⁹¹³ AEP Initial Comments at 25–26; Ameren Initial Comments at 20; Avangrid Initial Comments at 9–10, 29; Dominion Reply Comments at 19; Indicated PJM TOs Reply Comments at 22–24; ISO-NE Initial Comments at 35–36; ISO/RTO Council Initial Comments at 3–4; MISO Initial Comments at 73–74; MISO TOs Initial Comments at 15–16, 23–24; National Grid Initial Comments at 30; NESCOE Reply Comments at 11–12; NRECA Initial Comments at 9, 33–34; NYISO Initial Comments at 26–27; OMS Initial Comments at 15; Pacific Northwest Utilities Initial Comments at 9–10; PacifiCorp Initial Comments at 32–35; PG&E Initial Comments at 7; PG&E Reply Comments at 3–4; Puget Sound Initial Comments at 9; SDG&E Reply Comments at 1; Southern Initial Comments at 5, 30; State Agencies Initial Comments at 12–14; Tri-State Initial Comments at 17–18; U.S. Chamber of Commerce Initial Comments at 10; WIRES Initial Comments at 9; Xcel Initial Comments at 38.

¹⁹¹⁴ Indicated PJM TOs Initial Comments at 44.

¹⁹¹⁵ See *supra* PP 987–988.

interconnection customers and affected system interconnection customers included in the relevant study that did not withdraw, or were not deemed withdrawn, from the interconnection queue before the missed study deadline. Unless the transmission provider files an appeal to the study penalty, the study delay penalty must be distributed no later than 45 calendar days after the late study has been completed. Specifically, a study delay penalty for a delayed cluster study or cluster restudy must be distributed on a pro rata basis per interconnection request to all interconnection customers in the cluster, per the requirements above. A study delay penalty for a delayed facilities study must be distributed to the interconnection customer whose facilities were being studied, per the requirements above. Further, a study delay penalty for a delayed affected system study must be distributed to the affected system interconnection customer(s) whose generating facility was being studied by an affected system transmission provider, per the requirements above. In response to PG&E's request for clarification,¹⁹¹⁶ the study delay penalties are on a per business day basis and will be distributed equally to each delayed interconnection customer per the requirements above.

991. We find the distribution of the study delay penalties imposed due to a delay in the study, which defray the study costs of the interconnection customers affected by that delay, to be just and reasonable, as they will ensure that interconnection customers are able to interconnect in a reliable, efficient, transparent, and timely manner.

ix. No Recovery in Transmission Rates or From Interconnection Customers

992. Regarding recovery of study delay penalties, we modify the NOPR proposal to prohibit non-RTO/ISO transmission providers and transmission-owning members of RTOs/ISOs from recovering study delay penalty amounts through transmission rates. This treatment of study delay penalties is consistent with the treatment of penalties imposed pursuant to Order No. 890¹⁹¹⁷ and will ensure that the study delay penalties have the incentivizing effect discussed above. Because the at-fault transmission provider's shareholders will pay the penalty, this prohibition addresses

commenters' concerns¹⁹¹⁸ that study delay penalty costs will ultimately be borne by customers and ratepayers through increased transmission costs.¹⁹¹⁹

993. Additionally, we decline to allow any transmission provider to recover study delay penalties from interconnection customers to the extent the interconnection customers cause delays. If a study delay is caused by an interconnection customer, and not the transmission provider, that would represent a potentially compelling basis for the Commission to find that good cause exists to waive the study delay penalties. Further, we note that, in the event that an interconnection request is incomplete or an interconnection customer misses a deadline, those interconnection requests are subject to the withdrawal provisions of *pro forma* LGIP section 3.7.

x. Penalty Recovery in RTOs/ISOs

994. We decline to adopt the NOPR proposal to require RTOs/ISOs to submit requests to recover the costs of specific study delay penalties under FPA section 205. RTOs/ISOs may instead submit an FPA section 205 filing to propose a default structure for recovering study delay penalties and/or make individual FPA section 205 filings to recover the costs of any specific study delay penalties. We believe that this discretion for RTOs/ISOs will reduce the administrative burden associated with study delay penalty cost recovery and will allow RTOs/ISOs the flexibility to craft rules that work for their region. In response to ACORE's recommendation that RTOs/ISOs provide criteria for how they will assign study delay penalties, we note that RTOs/ISOs may file FPA section 205 proposals to explain how they will recover study delay penalties.¹⁹²⁰

995. We modify the NOPR proposal to adopt 18 CFR 35.28(f)(1)(ii) to specify that, for RTOs/ISOs in which the transmission-owning members perform certain interconnection studies, the study delay penalties imposed under the new *pro forma* LGIP will be imposed directly on the transmission-

owning member(s) that conducted the late study, thereby mooted the issue of how RTOs/ISOs recover those specific penalties. We believe that this change will also reduce the administrative burden, as RTOs/ISOs will typically not need to seek cost recovery for late facilities studies because those studies are often conducted by transmission-owning members. This change will also ensure that the study delay penalties are imposed on the public utility with the most control over whether the study deadline is met, *i.e.*, the public utility conducting the study. Doing so aligns the incentive created by the study delay penalty with the entity most in control of the study timeline. This change also responds to AEE's suggestion to assign RTO/ISO study delay penalties directly to transmission owners, OPSI's contention that RTOs/ISOs may be reluctant to seek cost recovery from transmission owners, and TAPS' concern that RTOs/ISOs would need well-supported cases to assign study delay penalties to transmission owners.¹⁹²¹

996. In response to commenters concerned about how study delay penalties will be assigned if no fault is found among RTO/ISO members,¹⁹²² the study delay penalties are imposed automatically on the RTO/ISO under the *pro forma* LGIP. As explained above, RTOs/ISOs may file an FPA section 205 proposal to recover the costs of study delay penalties. Concerns about any such proposals are best addressed in the relevant FPA section 205 proceedings. For the same reason, we decline to adopt TAPS' recommendation that the Commission provide an automatic waiver of any study delay penalty amount the RTO/ISO would otherwise pass to ratepayers,¹⁹²³ as such determinations are best made on a case-by-case basis. In response to Indicated PJM TOs argument that PJM lacks the contractual authority to seek recovery of study delay penalties from transmission owners,¹⁹²⁴ PJM's authority to recover costs from its transmission-owning members can be properly addressed in any future FPA section 205 proceeding.

997. We acknowledge commenters' concerns that the study delay penalty structure may impose an administrative and litigative burden on RTOs/ISOs and

¹⁹¹⁸ Alliant Energy Initial Comments at 6–7; National Grid Initial Comments at 33; NYISO Reply Comments at 6–7, 9; R Street Initial Comments at 14; SEIA Reply Comments at 17; State Agencies Initial Comments at 12; Tri-State Initial Comments at 18.

¹⁹¹⁹ See Order No. 2003, 104 FERC ¶ 61,103 at P 884 (“[B]ecause liquidated damages liability will not have to be paid unless the Transmission Provider is at fault, we conclude that these damages will not be considered just and reasonable costs of service and will not be recoverable in transmission rates.”).

¹⁹²⁰ ACORE Initial Comments at 8.

¹⁹²¹ AEE Initial Comments at 30; OPSI Initial Comments at 9; TAPS Initial Comments at 6–7.

¹⁹²² Alliant Energy Initial Comments at 6–7; APPA–LPPC Initial Comments at 22; ISO/RTO Council Initial Comments at 4; NARUC Initial Comments at 18; NESCOE Initial Comments at 16.

¹⁹²³ TAPS Initial Comments at 7–8.

¹⁹²⁴ Indicated PJM TOs Initial Comments at 45.

¹⁹¹⁶ PG&E Initial Comments at 8.

¹⁹¹⁷ See Order No. 890, 118 FERC ¶ 61,119 at P 1357 (“We will prohibit all jurisdictional transmission providers from recovering penalties for late studies from transmission customers.”).

the Commission,¹⁹²⁵ and that RTOs/ISOs may be in a fact-finding position in order to be able to assign study delay penalties not attributable to an RTO/ISO transmission owning member.¹⁹²⁶ As an initial matter, we believe that any such burden is outweighed by the need to create an incentive to ensure that transmission providers timely complete interconnection studies. Also, we find that RTOs/ISOs do not face differing or greater burdens that warrant different treatment than non-RTO/ISO transmission providers. The *pro forma* LGIP applies to all transmission providers, RTO/ISO and non-RTO/ISO alike. To the extent that RTOs/ISOs elect to create a tariff mechanism for recovering study delay penalties, rather than relying on individual filings, as noted above, the RTO/ISO may submit an FPA section 205 filing to propose such a default structure. Finally, where the transmission-owning members of an RTO/ISO perform interconnection studies, there is little-to-no “fact-finding” to be done to determine to which public utility to assign study delay penalties, as the transmission owner will be automatically assigned the penalty pursuant 18 CFR 35.28(f)(1)(ii).

998. In response to concerns that RTOs/ISOs have no ability to pay study delay penalties without collecting them from another party,¹⁹²⁷ we note that RTOs/ISOs have several options under this final rule for collecting study delay penalties. As discussed above, RTOs/ISOs may submit FPA section 205 filings to seek recovery for study delay penalties from public utilities contributing to study delays. The FPA section 205 filing could propose either to establish a tariff mechanism for assigning costs generally or for assigning costs for specific study delay penalties.

RTOs/ISOs also have other ways to fund study delay penalties beyond the revenue they collect for sales of transmission service: for example, RTOs/ISOs collect administrative fees from market participants.¹⁹²⁸

999. We disagree with NYISO that study delay penalties would threaten the financial viability of RTOs/ISOs or fail to incentivize RTOs/ISOs to complete studies by the required deadlines. The evidence in this record does not demonstrate that the study delay penalty structure that we adopt in this final rule, combined with the multiple adopted safeguards, including a total cap on study delay penalty amounts, would threaten the financial viability of an RTO/ISO, particularly given that RTOs/ISOs may submit FPA section 205 filings to recover study delay penalties. Additionally, as noted, we find that it is appropriate to incentivize RTOs/ISOs to meet study deadlines in the same manner as non-RTO/ISO transmission providers. Thus, we also disagree with NYISO that the study delay penalties for RTOs/ISOs should be smaller in size and slower to trigger.¹⁹²⁹ As discussed above, we believe that the study delay penalty structure strikes a reasonable balance by providing an adequate incentive without being punitive.

1000. AEP and TAPS assert that the imposition of study delay penalties will disincentivize RTO/ISO participation.¹⁹³⁰ We are not persuaded that any such disincentive outweighs the benefits of adopting study delay penalties. We expect that an incentive for transmission providers to meet interconnection study deadlines will result in more efficient interconnection queue processing, which will benefit competition and, in the long run, customers within a transmission provider’s region, including within RTO/ISO regions. We continue to believe that customers are more likely to experience lower overall costs if the

industry relies on robust wholesale competition to determine the appropriate level of generation and related transmission development.¹⁹³¹

1001. We find that applying study delay penalties to RTOs/ISOs for failing to meet interconnection study deadlines is consistent with Commission precedent and continues to be appropriate, particularly given the extent of interconnection queue backlogs in RTOs/ISOs. We disagree with NYISO that, because RTOs/ISOs may be at greater risk of being assessed study delay penalties than reliability penalties, this meaningfully distinguishes study delay penalties from the Commission’s findings in Order Nos. 672–A and 890 related to reliability penalties.¹⁹³² In response to NYISO’s comment that reliability penalties receive the Commission’s close scrutiny, we note that transmission providers will have an opportunity to seek relief from a penalty by filing an appeal, which the Commission will closely scrutinize and in response to which the Commission will issue an order.¹⁹³³

xi. Posting Requirements

1002. For transparency purposes, we adopt the proposed requirements in *pro forma* LGIP section 3.9(7) that transmission providers must post on their OASIS or other publicly accessible website on a quarterly basis, within 30 calendar days of the end of the calendar quarter, (1) the total amount of study delay penalties from the previous reporting quarter, and (2) the highest amount of such study delay penalties repaid to a single interconnection customer during the previous reporting quarter. We also adopt the proposed requirements in *pro forma* LGIP section 3.9(7) that transmission providers must maintain the quarterly measures posted on their OASIS or website for three calendar years, with the first required posting to be the third cluster study cycle (including any transitional cluster study cycle, but not transitional serial studies) after the transmission provider transitions to the cluster study process. We believe that this additional

¹⁹²⁵ Avangrid Reply Comments at 8; CAISO Initial Comments at 26; Indicated PJM TOs Reply Comments at 27; ISO–NE Initial Comments at 35; ISO/RTO Council Initial Comments at 3–4; PJM Initial Comments at 57–58; MISO Initial Comments at 16, 77; MISO TOs Reply Comments at 21–22; New York State Department Initial Comments at 10–11; NYISO Initial Comments at 33; SoCal Edison Initial Comments at 19.

¹⁹²⁶ ISO–NE Initial Comments at 36; ISO/RTO Council Initial Comments at 5–6; MISO Initial Comments at 15, 75.

¹⁹²⁷ Alliant Energy Initial Comments at 6–7; EEI Initial Comments 17; Indicated PJM TOs Initial Comments at 37; ISO/RTO Council Initial Comments at 3–4; MISO Initial Comments at 13, 71; MISO TOs Reply Comments at 20; NARUC Initial Comments at 18; NEPOOL Initial Comments at 16; NESCOE Reply Comments at 11; New York State Department Initial Comments at 10; North Dakota Commission Initial Comments at 6; NYISO Initial Comments at 32; Omaha Public Power Initial Comments at 11; OMS Initial Comments at 15; R Street Initial Comments at 14; State Agencies Initial Comments at 12–13; TAPS Initial Comments at 3–5; WIRES Initial Comments at 11.

¹⁹²⁸ For example, MISO recovers the costs of providing financial transmission rights (FTR) administrative service from FTR holders under its Rate Schedule 16 (MISO Tariff, Schedule 16). SPP recovers the costs of administering its transmission administration service, transmission congestion rights administrative service, and integrated marketplace clearing administrative service from transmission customers and market participants under its Rate Schedule 1–A (SPP Tariff, Schedule 1–A). PJM recovers the costs of its control area administration service, which includes “preserving the reliability of the PJM Region and administering Point-to-Point Transmission Service and Network Integration Transmission Service” from users of the service under Schedule 9–1 (PJM Tariff, Schedule 9–1).

¹⁹²⁹ NYISO Initial Comments at 32, 37, 41.

¹⁹³⁰ AEP Initial Comments at 27–28; TAPS Initial Comments at 6.

¹⁹³¹ See Order No. 2003–A, 106 FERC ¶ 61,220 at P 507.

¹⁹³² Order No. 672–A, 114 FERC ¶ 61,328 at P 56 (“it is not arbitrary and capricious to treat all operators alike, including RTOs and ISOs, in terms of their liability for violation of a Reliability Standard.”); Order No. 890, 118 FERC ¶ 61,119 at P 1357 (“we believe that all entities administering the tariff should operate under the same rules, reporting obligations, and performance metrics . . . Non-profit transmission providers have other sources of money to pay penalties beyond the revenue they collect for sales of transmission service.”).

¹⁹³³ NYISO Initial Comments at 33–34.

information will be helpful to the public and the Commission in tracking the status of interconnection queue delays and that the burden on transmission providers of posting this information will be minimal.

xii. Force Majeure Exception

1003. We decline to adopt the NOPR proposal to exempt transmission providers from study delay penalties where *force majeure* applies. We believe that this exemption is unwarranted: transmission providers may explain in any appeal to the Commission any circumstances that caused the delay, including any events that qualify as *force majeure*, and the Commission will consider such circumstances as part of its evaluation of whether good cause exists to grant relief from the otherwise applicable study delay penalties.

xiii. Transmission Provider Resources

1004. In response to commenters that raise concerns about transmission provider resources to complete studies on time, we first emphasize that the overall set of reforms in this final rule should significantly streamline and reduce the number of interconnection studies that a transmission provider must conduct, easing the burden on transmission providers. With the benefit of fewer studies and fewer speculative generating facilities in the interconnection queue, we expect that a transmission provider that faces the potential of a study delay penalty for failing to meet interconnection study deadlines will be able to allocate sufficient resources to conduct interconnection studies, in addition to implementing reforms to ensure that its study process is efficient. In this final rule, we adopt interconnection study deadlines for a transmission provider to complete cluster studies, cluster restudies, facilities studies, and affected system studies. As discussed above, we believe that the interconnection study deadlines will give transmission providers sufficient time to conduct the relevant studies, e.g., 150 calendar days for the completion of the cluster study, and we have demonstrated that the existing *pro forma* generator interconnection procedures and agreements are insufficient to ensure that interconnection customers are able to interconnect to the transmission system in a reliable, efficient, transparent, and timely manner.¹⁹³⁴ We therefore believe that the record supports the imposition of study delay

penalties for failure to meet those deadlines.

1005. Some commenters argue that other NOPR proposals, such as the optional resource solicitation studies, optional informational interconnection studies, and evaluation of advanced transmission technologies, will consume transmission provider resources otherwise dedicated to interconnection studies.¹⁹³⁵ Similarly, other commenters argue that imposing firm study deadlines will force transmission providers to redirect resources and personnel away from other necessary functions such as transmission planning or deprive them of financial resources and make it harder to retain qualified personnel.¹⁹³⁶ We note that we do not adopt the NOPR proposals to implement optional informational interconnection studies or optional resource solicitation studies and adopt a modified version of the NOPR proposal to require evaluation of certain enumerated advanced transmission technologies, which should reduce the burden on transmission providers as compared to that under the NOPR. Further, to these arguments, we note that it is the transmission provider's responsibility to manage its organizational resources—including attracting and retaining sufficient qualified personnel to meet its responsibilities—and that it is within the transmission provider's ability to improve how it manages its internal resources. If, for whatever reason, the transmission provider is not able to meet firm study deadlines, that is an issue the transmission provider is free to raise in appealing any penalties it incurs. While we are not persuaded that transmission providers will necessarily need to reassess their organizational needs to meet study deadlines, given the suite of reforms adopted in the final rule, to the extent that such steps are required, they are warranted to fulfill our responsibility under the FPA to ensure just and reasonable rates and to ensure that interconnection customers are able to interconnect in a reliable, efficient, transparent, and timely manner.

1006. We disagree with SoCal Edison and New York State Department that transmission providers will require additional resources to track and

allocate study delay penalties, potentially increasing the cost of administering interconnection queues.¹⁹³⁷ We note that transmission providers already track the progress of their interconnection queues and should be aware of study deadlines, especially as their tariffs currently require reasonable efforts to meet such deadlines. As a result, determining when study delay penalties apply will be as straightforward as determining how many studies are late and past the 10-business day grace period from the applicable study deadline. As explained above, we anticipate that other provisions of this final rule will result in improved interconnection queue management and processing, which should ease the burden on transmission providers over time.

1007. We also disagree with commenters that firm study deadlines with study delay penalties will necessarily reduce interconnection study flexibility¹⁹³⁸ and accuracy,¹⁹³⁹ as well as system reliability.¹⁹⁴⁰ We reiterate that it is within transmission providers' ability to improve interconnection study processes and policies and take other measures, such as hiring additional staff, to efficiently process interconnection queues without sacrificing accuracy, flexibility, or reliability. Study delay penalties will incentivize these actions, especially given transmission providers' independent responsibilities to deliver accurate studies and to ensure system reliability. Thus, we agree with the New Jersey Commission that there is not an inherent tradeoff between holding

¹⁹³⁷ New York State Department Initial Comments at 10–11; SoCal Edison Initial Comments at 19.

¹⁹³⁸ Dominion Reply Comments at 21; EEI Initial Comments at 15; Eversource Initial Comments at 25–26; NYISO Initial Comments at 38–39; WIRES Initial Comments at 10.

¹⁹³⁹ AECI Initial Comments at 6; Alliant Energy Initial Comments at 6; Avangrid Initial Comments at 9–10, 30; Bonneville Initial Comments at 15–16; CESA Reply Comments at 8; Clean Energy Buyers Initial Comments at 10–11; Enel Initial Comments at 48; Indicated PJM TOs Reply Comments at 26; ISO/RTO Council Initial Comments at 8; Longroad Energy Reply Comments at 14; MISO Initial Comments at 13, 71, 77–78; MISO TOs Initial Comments at 14, 24; National Grid Initial Comments at 30; NESCOE Reply Comments at 13; NextEra Reply Comments at 11; NYTOs Initial Comments at 24–28; North Dakota Commission Initial Comments at 6; NRECA Initial Comments at 34; NYISO Initial Comments at 38–39; Omaha Public Power Initial Comments at 12; OMS Initial Comments at 15; Ørsted Initial Comments at 15; PacifiCorp Reply Comments at 6; PJM Initial Comments at 8, 56–57; PPL Initial Comments at 19; SPP Initial Comments at 11–12; Tri-State Initial Comments at 18; Xcel Initial Comments at 38.

¹⁹⁴⁰ AEP Initial Comments at 28; Dominion Reply Comments at 21; MISO TOs Reply Comments at 18–19; NYISO Initial Comments at 39; PJM Initial Comments at 8, 56–57.

¹⁹³⁵ Indicated PJM TOs Initial Comments at 36; MISO Reply Comments at 7; PPL Initial Comments at 24; SPP Initial Comments at 13.

¹⁹³⁶ Ameren Initial Comments at 21; Eversource Initial Comments at 25–26; Indicated PJM TOs Initial Comments at 6, 24, 40; MISO TOs Initial Comments at 24; National Grid Initial Comments at 30; Pacific Northwest Utilities Initial Comments at 12; PJM Initial Comments at 57.

¹⁹³⁴ See *supra* section II.C.

transmission providers accountable and transmission system reliability. In addition, we further agree that the failure to bring new generating facilities online in a timely manner can also create reliability and economic risk.¹⁹⁴¹ Moreover, interconnection customers, rather than transmission providers, ultimately bear the costs of interconnection studies. To the extent that it is more costly to complete studies in a timely and accurate fashion, these interconnection study costs will be passed on to interconnection customers. Further, as noted above, the study delay penalty structure includes significant safeguards for the transmission provider, such as the transition period, the 10-business day grace period, the penalty cap, the ability to extend deadlines by mutual agreement, and the ability to appeal any study delay penalties to the Commission.

xiv. Coordination Among Transmission Providers, Interconnection Customers, and Affected Systems

1008. Several commenters raise concerns related to affected systems, and coordination among transmission providers, interconnection customers, and affected systems. In response to NARUC's request for clarification regarding affected system studies, we note that new *pro forma* LGIP section 3.9 will apply to all transmission providers when they are acting as an affected system operator (affected system transmission providers).¹⁹⁴² As a result, affected system transmission providers are also subject to a study delay penalty for a late affected system study. Thus, contrary to commenters' arguments that the NOPR proposal ignores that other entities, such as affected systems, may be responsible for study delays,¹⁹⁴³ affected system transmission providers will face the same incentive as the host transmission provider to timely complete their studies. In addition, where a delay for a host transmission provider's cluster or facilities studies is caused by affected system study delays, the host transmission provider can file an appeal of any applicable study delay penalty with the Commission and include such details in its claim of good cause for relief.

1009. We disagree with commenters' concerns that the study delay penalty structure would decrease or harm coordination between transmission

providers, interconnection customers, and affected systems,¹⁹⁴⁴ and/or create tension between RTOs/ISOs, transmission owners, developers, or other parties.¹⁹⁴⁵ The incentive for transmission providers to timely complete interconnection studies created by the study delay penalty structure should improve coordination among transmission providers and interconnection customers to ensure that transmission providers have the information needed to complete the studies and, if there is an issue, to pursue a potential extension of the deadline via mutual agreement. We note that other reforms adopted in this final rule will improve clarity and efficiency around affected system studies, which should improve coordination with affected systems. In addition, affected system transmission providers are also subject to study delay penalties for delayed affected system studies, which should encourage better coordination. We also believe that an ability to appeal study delay penalties will provide a structured forum for parties to dispute claims, placing the Commission in the position of decisionmaker when it comes to determining whether to excuse study delay penalties.

1010. We disagree with AECI that there is no benefit to imposing penalties on affected system transmission providers for failure to timely complete affected system studies. These studies equally affect interconnection customer certainty and interconnection process efficiency, and as such, we believe that the penalty structure enumerated above will also incentivize transmission providers to complete affected system studies in a timely manner. Indeed, the Commission has addressed several instances where affected system studies have delayed or otherwise affected interconnection study timelines and processes,¹⁹⁴⁶ and therefore, without imposing a penalty structure, we are not convinced that transmission providers will timely complete their affected system studies. In the same vein, we agree with Interwest that monetary penalties for failure to meet the affected system study deadline will incentivize discipline and support investment

needed to meet affected system study timelines.

1011. In response to ENGIE, MISO, and Duke Southeast Utilities' comments on the distribution of study delay penalties for failure to timely complete affected system studies, we note that any study delay penalties will be distributed on a pro rata basis per interconnection request to the affected system interconnection customers included in the relevant study that did not withdraw, or were not deemed withdrawn, from the interconnection queue before the missed study deadline.

xv. Commission Authority and Precedent

1012. Some commenters argue that the proposed study delay penalty structure is an unjustified shift from precedent established in Order No. 845, in which the Commission expressly declined to impose penalties.¹⁹⁴⁷ We disagree. As we explain above, interconnection queue delays in many parts of the country have worsened since Order No. 845, and the record indicates that the failure of transmission providers to timely complete studies is a significant part of the reason why. For example, in the single year between 2021 and 2022, there was marked increase in the average length of time customers have been waiting in the interconnection queue, increasing from roughly 4 to 5 years, while at the same time seeing the total interconnection queue size increased from 1,400 GW to more than 2,000 GW.¹⁹⁴⁸ Based on the recent interconnection study metrics transmission providers posted in compliance with Order No. 845, of the 2,179 interconnection studies completed in 2022, 68% were issued late.¹⁹⁴⁹ Furthermore, at the end of 2022, an additional 2,544 studies were delayed (*i.e.*, ongoing and past their deadline).¹⁹⁵⁰ All of the RTOs/ISOs except CAISO and 14 non-RTO/ISO transmission providers reported delayed studies at the end of 2022.¹⁹⁵¹ We believe that this large number of delayed studies is a significant part of

¹⁹⁴⁷ MISO TOs Initial Comments at 21–22; NYISO Initial Comments at 26; PG&E Initial Comments at 6; PG&E Reply Comments at 3.

¹⁹⁴⁸ Queued Up 2022 at 3; Queued Up 2023 at 3, 31.

¹⁹⁴⁹ Based on data provided by transmission providers in compliance with Order No. 845. See appendix B to this final rule for the underlying data.

¹⁹⁵⁰ *Id.* Note that the vast majority of these studies (2,211) were in PJM.

¹⁹⁵¹ *Id.* CAISO revised the interconnection study deadlines of their queue cluster 14 to account for the unprecedented increase in interconnection requests. *Cal. Indep. Sys. Operator Corp.*, 176 FERC ¶ 61,207.

¹⁹⁴¹ New Jersey Commission Reply Comments at 3.

¹⁹⁴² NARUC Initial Comments at 14, 17.

¹⁹⁴³ ISO/RTO Council Initial Comments at 3–4; MISO Initial Comments at 74.

¹⁹⁴⁴ Alliant Energy Initial Comments at 6; EEI Initial Comments at 15; Eversource Initial Comments at 25–26; MISO Reply Comments at 21; North Dakota Commission Initial Comments at 6.

¹⁹⁴⁵ AEP Initial Comments at 27; Dominion Initial Comments at 35–36; Indicated PJM TOs Reply Comments at 6–7, 27; NextEra Initial Comments at 30; NYISO Initial Comments at 39–40; PJM Initial Comments at 57–58.

¹⁹⁴⁶ See, e.g., *Tenaska Clear Creek Wind, LLC v. Sw. Power Pool, Inc.*, 177 FERC ¶ 61,200 (2021); *EDF Renewable Energy, Inc. v. Midcontinent Indep. Sys. Operator, Inc.*, 168 FERC ¶ 61,173 (2019).

the explanation for the extensive delays and growing interconnection queues documented above and in the Overall Need for Reform section. Accordingly, based on the evidence in *this* record, we find that study delay penalties are an appropriate component of a just, reasonable, and not unduly discriminatory or preferential replacement rate to remedy these interconnection delays and the consequences they have for Commission-jurisdictional rates.¹⁹⁵²

1013. Similarly, in response to commenters who argue that the proposed study delay penalty structure differs from the penalty structure implemented in Order No. 890 for transmission service studies,¹⁹⁵³ we believe that such differences are warranted by the significant and growing interconnection queue backlogs. We agree with PacifiCorp that, compared to transmission service requests, interconnection studies are more numerous, complex, and susceptible to delays.¹⁹⁵⁴ Further, as noted above, there is a growing number of interconnection customers affected by study delays. We believe that these factors underscore the need for transmission providers to meet study deadlines and the need to provide an incentive, in the form of study delay penalties. We find that the other reforms adopted in this final rule will streamline interconnection processes: for example, the cluster study process will reduce the number of interconnection studies that any transmission provider must conduct at a given time, thus reducing the potential for study delay penalties to accumulate relative to the serial study process in place today. We find that the elimination of the reasonable efforts standard and adoption of the study delay penalty structure will incentivize transmission providers to take appropriate steps to meet the study deadlines in their tariffs.

1014. We also disagree with TAPS' assertion that reliability penalties are permissible because they are part of a congressionally mandated regime, whereas the study delay penalties are not.¹⁹⁵⁵ We find that FPA section 206 provides us with the authority to establish a structure to impose study

delay penalties because such delays render Commission-jurisdictional rates unjust and unreasonable, as explained in the Overall Need for Reform section, and we believe that this structure reflects a just and reasonable replacement rate.¹⁹⁵⁶ As discussed above, an RTO/ISO has different options for recovering those penalties, and we are not in this final rule dictating which option an RTO/ISO must choose. Further, TAPS' argument that reliability penalties are used to offset NERC's operation costs but the interconnection study delay penalties will not be used to offset costs for consumers or ratepayers does not change our conclusion.¹⁹⁵⁷ We do not believe that our authority to require study delay penalties as part of a just and reasonable replacement rate turns on the entity whose costs are offset by the penalties collected, and as discussed above, we find it appropriate in this circumstance to use study penalties to offset the interconnection study costs for interconnection customers that are affected by the study delays.

1015. Moreover, automatic tariff-based penalty mechanisms similar to that which we adopt in this final rule exist in a variety of other contexts. For example, RTO/ISO tariffs include penalties for "traffic ticket" violations that are penalized without referral to the Commission.¹⁹⁵⁸ In that context, the Commission has approved such automatic penalties where (1) the activity is expressly set forth in the tariff, (2) the activity involves objectively identifiable behavior, and (3) the activity does not subject the actor to sanctions or consequences other than those expressly approved by the Commission and set forth in the tariff, with the ability to appeal.¹⁹⁵⁹ to the Commission.¹⁹⁶⁰ That is the same structure we are adopting here: the study delay penalties (1) will be expressly set forth in the tariff, (2) will be based on objectively identifiable

behavior (*i.e.*, whether a study is late), and (3) will only trigger consequences expressly approved by the Commission (*i.e.*, the \$1,000/\$2,000/\$2,500 per business day penalties with the ability to appeal to the Commission).

1016. In response to Indicated PJM TOs' argument that the Commission lacks the authority to require RTOs/ISOs to seek cost recovery of study delay penalties from transmission owners within the RTO/ISO,¹⁹⁶¹ we note that this concern is moot because we are declining to adopt the NOPR proposal to require RTOs/ISOs to submit requests to recover the costs of specific study delay penalties. Further, we modify our proposal to adopt revisions to 18 CFR 35.28(f)(1)(ii) to automatically apply study delay penalties to transmission owners within RTOs/ISOs when those transmission owners have conducted the delayed studies. Finally, as discussed above, RTOs/ISOs *may* submit an FPA section 205 filing to propose a default structure for recovering study delay penalties or make individual FPA section 205 filings to recover the costs of any specific study delay penalties.

xvi. Miscellaneous

1017. We also decline to adopt alternative proposals for study delay penalty structures. We find the penalty structure that we adopt in this final rule to be a just and reasonable replacement rate, which is all that the Commission is required to show under FPA section 206.¹⁹⁶²

1018. In response to EEI's and Eversource's comments concerning why the good utility practice standard, which is contained within the text of the definition of the reasonable efforts standard in the *pro forma* LGIP, would no longer apply to interconnection processes,¹⁹⁶³ we clarify that the elimination of the reasonable efforts standard does not eliminate the requirement that transmission providers act consistent with good utility practice when conducting interconnection studies. Therefore, we adopt revisions to section 4.2 of the *pro forma* LGIP to indicate that transmission providers must continue to conduct interconnection studies consistent with good utility practice.

¹⁹⁶¹ Indicated PJM TOs Initial Comments at 44–45.

¹⁹⁶² *Entergy Ark., LLC v. FERC*, 40 F.4th 689, 701 (D.C. Cir. 2022) (explaining that in setting the replacement rate under FPA section 206, "FERC is not required to choose the best solution, only a reasonable one") (quoting *Petal Gas Storage, LLC v. FERC*, 496 F.3d 695, 703 (D.C. Cir. 2007)).

¹⁹⁶³ EEI Initial Comments at 15; Eversource Initial Comments at 22–24.

¹⁹⁵⁶ 16 U.S.C. 824e.

¹⁹⁵⁷ TAPS Initial Comments at 5.

¹⁹⁵⁸ See, e.g., *Cal. Indep. Sys. Operator Corp.*, 134 FERC ¶ 61,050, at PP 34–35 (2011); *N.Y. Indep. Sys. Operator, Inc.*, 131 FERC ¶ 61,225, at P 16 (2010). Also, in Order No. 890, the Commission approved other tariff-based "operational penalties" on customers where it similarly did not require notification or review by the Commission of the assessed penalty. See Order No. 890, 118 FERC ¶ 61,119 at PP 834–36.

¹⁹⁵⁹ See, e.g., *Cal. Indep. Sys. Operator Corp.*, 175 FERC ¶ 61,043 (2021) (excusing penalties for late meter data revisions); *Lathrop Irrigation Dist.*, 161 FERC ¶ 61,243 (2017) (denying request for waiver of CAISO tariff provisions that impose penalties on late submission by LSEs of required information for resource adequacy plans).

¹⁹⁶⁰ *Cal. Indep. Sys. Operator Corp.*, 134 FERC ¶ 61,050 at PP 34–35.

¹⁹⁵² See *Motor Vehicle Mfrs. Ass'n of U.S., Inc. v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. at 56–57 ("[T]he agency is entitled to change its view . . . [if it] explain[s] its reasons for doing so.").

¹⁹⁵³ Eversource Initial Comments at 30; MISO Reply Comments at 21; MISO TOs Initial Comments at 19–21; PacifiCorp Initial Comments at 33–34; Tri-State Initial Comments at 18.

¹⁹⁵⁴ PacifiCorp Initial Comments at 33–34.

¹⁹⁵⁵ TAPS Initial Comments at 5 (citing 16 U.S.C. 824o).

1019. Some commenters argue that interconnection study deadlines should be extended in cases of interconnection customer-caused delays and that the timeline for completing such studies should not restart until after an interconnection customer submits all necessary information and cures any deficiencies; they also argue that transmission providers should not be penalized if study delays are caused by a higher-queued cluster being restudied.¹⁹⁶⁴ We decline to adopt these modifications. As an initial matter, we note that if an interconnection customer fails to adhere to all requirements in the *pro forma* LGIP, except in the case of disputes, the transmission provider shall deem the interconnection customer's interconnection request to be withdrawn pursuant to section 3.7 of the *pro forma* LGIP. To the extent that study delays result from an interconnection customer's actions or higher-queued cluster restudies, transmission providers may record the length of those delays and report that information in any appeal of study delay penalties filed with the Commission.

1020. We disagree with PJM that interconnection customers will be incentivized to delay studies of their interconnection requests in order to offset their study costs via study delay penalties being allocated to them from the transmission provider.¹⁹⁶⁵ We agree with AEE that the economic harms of delaying the interconnection process for an interconnection customer with a commercially viable interconnection request, especially given the reforms adopted in this final rule (e.g., increased study deposits, commercial readiness deposits, and withdrawal penalties) significantly outweigh any economic incentive for interconnection customers to delay the interconnection process in hopes of a study delay penalty to offset study costs.¹⁹⁶⁶ For example, a cluster study delayed by 100 business days would generate \$100,000 in study delay penalties to be distributed among all interconnection customers in the cluster, yet such a lengthy delay could force an interconnection customer to withdraw from the interconnection queue due to commercial obligations and carries an interconnection customer withdrawal penalty risk of two times the study cost.

1021. We decline requests to delay implementation of the study delay

penalty reforms until other reforms in this rulemaking and related rulemakings, such as those in Docket No. RM22-17, take effect.¹⁹⁶⁷ As explained above, our modification to the NOPR's proposed transition mechanism for study delay penalties, which will allow transmission providers to complete two cluster study cycles before being subject to study delay penalties, will provide sufficient time for transmission providers to implement the other reforms adopted in this final rule. This transition mechanism will also give transmission providers currently undergoing their own interconnection queue reform efforts, as SPP and NYISO explain they are, time to implement those reforms.¹⁹⁶⁸ In addition, we find that the study delay penalties are just and reasonable based on the record in this proceeding and that it would not be appropriate to delay their effect until action is taken in other proceedings. To the extent the Commission finalizes the proposed reforms in separate proceedings, the Commission will consider how to address potential interactions between the reforms adopted in this final rule and elsewhere.

1022. In response to WAPA's comment that Federal agencies should not be subject to study delay penalties absent a specific congressional waiver of sovereign immunity,¹⁹⁶⁹ we clarify that the penalties will apply to the extent that a non-public utility has adopted the proposed penalty provisions as a part of its reciprocity tariff.¹⁹⁷⁰ Under the safe harbor procedure set out in Order No. 888, non-public utilities may voluntarily submit to the Commission

an open access transmission tariff; if the Commission finds that the tariff contains terms and conditions that substantially conform or are superior to those in the *pro forma* open access transmission tariff, the Commission will deem it an acceptable reciprocity tariff and will require public utilities to provide open access transmission service to that particular non-public utility (safe harbor treatment).¹⁹⁷¹ We find that, where such non-public utilities voluntarily file a reciprocity tariff, they consent to abide by the Commission's open access principles and the various provisions of the *pro forma* tariff, which would include the penalties we are adopting in this final rule (unless the Commission were to find that a safe harbor tariff without those penalty provisions substantially conforms or is superior to the *pro forma* tariff).¹⁹⁷²

1023. WAPA cites to *Southwestern Power Admin. v. FERC*¹⁹⁷³ for its proposition that, absent a specific waiver of sovereign immunity, Federal agencies are not subject to monetary penalties.¹⁹⁷⁴ We find that case inapposite because the penalties adopted here are not civil monetary penalties imposed by the Commission and paid to the U.S. Treasury. Instead, they would be penalties imposed pursuant to a voluntarily submitted reciprocity tariff and would be distributed to the delayed interconnection customer(s) in the relevant study that remained in the interconnection queue at the time the penalty would be distributed. WAPA and other Federal agencies, if they file reciprocity tariffs, would voluntarily choose to abide by the terms of those tariffs and thus would consent to any penalty structures contained in them.

1024. We decline to adopt commenters' suggestions to create generic exceptions to study delay penalties.¹⁹⁷⁵ Not only do we lack record support for some of the suggestions, but we also believe that

¹⁹⁷¹ Order No. 888, FERC Stats. & Regs. ¶ 31,036, at 31,761.

¹⁹⁷² Where, as here, the Commission makes changes to the *pro forma* tariff, a non-public utility that already has a reciprocity tariff and wishes to maintain its safe harbor treatment must amend its tariff so that its provisions substantially conform or are superior to the revised *pro forma* tariff. See Order No. 2003, 104 FERC ¶ 61,103 at P 842.

¹⁹⁷³ *Sw. Power Admin. v. FERC*, 763 F.3d 27 (D.C. Cir. 2014).

¹⁹⁷⁴ WAPA Initial Comments at 10 n.12.

¹⁹⁷⁵ Indicated PJM TOs Initial Comments at 42; MISO TOs Initial Comments at 25; National Grid Initial Comments at 32; NESCOE Initial Comments at 16; NYISO Initial Comments at 42; PPL Initial Comments at 19; SoCal Edison Initial Comments at 19; Tri-State Initial Comments at 18; WIREs Initial Comments at 10; Xcel Initial Comments at 38.

¹⁹⁶⁴ APPA-LPPC Initial Comments at 21; NRECA Initial Comments at 34; Tri-State Initial Comments at 18–19.

¹⁹⁶⁵ PJM Initial Comments at 57.

¹⁹⁶⁶ AEE Reply Comments at 35–36.

¹⁹⁶⁷ AEP Initial Comments at 29; Avangrid Reply Comments at 14; Clean Energy Buyers Initial Comments at 10–11; Eversource Initial Comments at 30–31; Idaho Power Initial Comments at 10; ISO/RTO Council Reply Comments at 5; Longroad Energy Reply Comments at 15; NY Commission and NYSEDA Initial Comments at 6; NYISO Initial Comments at 30; Pacific Northwest Utilities Initial Comments at 9–10; PacifiCorp Initial Comments at 34; Puget Sound Initial Comments at 11; State Agencies Initial Comments at 14; TAPS Initial Comments at 9.

¹⁹⁶⁸ NYISO Initial Comments at 30; SPP Initial Comments at 14–15.

¹⁹⁶⁹ WAPA Initial Comments at 10.

¹⁹⁷⁰ *Promoting Wholesale Competition Through Open Access Non-Discriminatory Transmission on Servs. by Pub. Utils.; Recovery of Stranded Costs by Pub. Utils. & Transmitting Utils.*, Order No. 888, 61 FR 21540 (May 10, 1996), FERC Stats. & Regs. ¶ 31,036, at 31,760–763 (1996) (cross-referenced at 75 FERC ¶ 61,080), *order on reh'g*, Order No. 888–A, 62 FR 12274 (Mar. 14, 1997), FERC Stats. & Regs. ¶ 31,048 (cross-referenced at 78 FERC ¶ 61,220), *order on reh'g*, Order No. 888–B, 81 FERC ¶ 61,248 (1997), *order on reh'g*, Order No. 888–C, 82 FERC ¶ 61,046 (1998), *aff'd in relevant part sub nom. Transmission Access Pol'y Study Grp. v. FERC*, 225 F.3d 667 (D.C. Cir. 2000), *aff'd sub nom. N.Y. v. FERC*, 535 U.S. 1 (2002).

transmission provider requests for an exception to a study delay penalty are best addressed on a case-by-case basis via the appeal process outlined above.

1025. We decline to adopt alternative proposals suggested by various commenters. For example, we do not believe that imposing only a reporting requirement on study delays is sufficient to resolve the problem of interconnection queue backlogs and repeatedly delayed interconnection studies. Similarly, we decline to condition study delay penalties on the outcome of a show cause proceeding conducted by the Commission, as suggested by MISO,¹⁹⁷⁶ because it would be administratively burdensome and may not create a sufficient incentive for transmission providers to meet interconnection study deadlines. We also decline to adopt suggestions such as creation of favorable rate treatment for transmission providers that meet interconnection study deadlines¹⁹⁷⁷ or tying interconnection study performance to executive compensation,¹⁹⁷⁸ which we do not believe would ensure that interconnection customers are able to interconnect in a reliable, efficient, transparent, and timely manner as effectively as the study delay penalty structure that we adopt instead.

2. Affected Systems

a. Need for Reform

i. NOPR Proposal

1026. In the NOPR, the Commission preliminarily found that the affected system study process lacks consistency between transmission providers.¹⁹⁷⁹ The Commission stated that, without any requirement for a timely cost determination, affected system operators may not return study results in time for interconnection customers to make informed decisions to facilitate interconnection of their generating facilities. The Commission added that, due to this lack of information, there may continue to be late-stage withdrawals resulting from unexpected high costs for affected system network upgrades that create restudies and

delays.¹⁹⁸⁰ The Commission also noted that interconnection customers recommended standardization of the affected system study process in both the technical conference in Docket No. AD18–8–000 and in comments on the ANOPR in Docket No. RM21–17–000, specifically asking for standardization of the timing of study results, the amount of study costs, and modeling criteria used in affected system studies.¹⁹⁸¹

1027. The Commission noted that, currently, detailed information about any two transmission providers' affected system study processes is found in multiple transmission provider documents and is not necessarily cohesive, which appears to create confusion and uncertainty.¹⁹⁸² The Commission further preliminarily found that, despite these documents, much of the affected system study process is ad hoc and, therefore, unclear to interconnection customers. In addition, the Commission explained that affected system study processes are highly variable based on region and transmission provider, and they may not be uniform even across a single transmission provider's footprint.

1028. The Commission preliminarily found that the lack of an affected system study process results in Commission-jurisdictional rates that are unjust and unreasonable because an interconnection customer cannot evaluate its costs in a timely manner, which increases uncertainty and may result in late-stage withdrawals and subsequent restudies, delays, and increased costs to the remaining interconnection customers in the interconnection queue.¹⁹⁸³ The Commission stated that, without a transparent affected system study process, it appears that neither an interconnection customer nor the Commission can evaluate whether the affected system operator has acted in an unduly discriminatory manner. The Commission further stated that reforms to improve transparency and coordination, therefore, may be necessary to establish a just, reasonable, and not unduly discriminatory or

preferential affected system study process.

ii. Comments

1029. Multiple commenters generally support action to address the Commission's identified need to reform affected system study processes.¹⁹⁸⁴ For example, AEE asserts that existing affected system study processes are plagued by uncertainty and a lack of transparency, which, in turn, create delays, interconnection queue withdrawals, and cost increases.¹⁹⁸⁵ Invenergy, Enel, and SEIA assert that current misalignments in and lack of coordination of affected system study processes can lead to uncertain, duplicative, or unexpected study results.¹⁹⁸⁶ Some commenters support synchronization and harmonization of affected system study processes, with NextEra alleging that study processes across several regions lack transparency, consistency, coordination, and accountability, which results in errors and delays.¹⁹⁸⁷ Similarly, Google contends that current affected system study processes lack deadlines or structure, which exacerbates anticipating interconnection costs and, in turn, stifles investments.¹⁹⁸⁸ National Grid asserts that host transmission system and affected system study processes can be significantly misaligned with project development, investment, and financing timelines and decision points, resulting in unmanageable risk for interconnection customers.¹⁹⁸⁹

1030. Several commenters highlight the shortcomings of current *pro forma* LGIP requirements and their contribution to affected system study process problems.¹⁹⁹⁰ ACE–NY emphasizes that nothing in the *pro forma* LGIP binds the affected system

¹⁹⁸⁴ ACE–NY Initial Comments at 8–9; AEE Initial Comments at 34–35; Enel Initial Comments at 58; Google Initial Comments at 5–6, 22; Invenergy Initial Comments at 40; Omaha Public Power Initial Comments at 12; SEIA Initial Comments at 34–35; Shell Initial Comments at 30.

¹⁹⁸⁵ AEE Initial Comments at 34–35; *see also* ELCON Initial Comments at 7; SEIA Initial Comments at 34–35; Shell Initial Comments at 30.

¹⁹⁸⁶ Enel Initial Comments at 58; Invenergy Initial Comments at 40; SEIA Initial Comments at 34–35. Invenergy states that many commenters acknowledge the need for improvements to current affected system study processes. Invenergy Reply Comments at 7–8.

¹⁹⁸⁷ APS Initial Comments at 19; ELCON Initial Comments at 7; NextEra Initial Comments at 31–32; NextEra Reply Comments at 4; Omaha Public Power Initial Comments at 12.

¹⁹⁸⁸ Google Initial Comments at 5–6, 22; U.S. Chamber of Commerce Initial Comments at 10–11.

¹⁹⁸⁹ National Grid Initial Comments at 35.

¹⁹⁹⁰ *See, e.g.*, Clean Energy Associations Initial Comments at 47–48; UMPA Initial Comments at 5–6.

¹⁹⁷⁶ MISO Initial Comments at 79–80.

¹⁹⁷⁷ Longroad Energy Reply Comments at 14–15; Shell Initial Comments at 11.

¹⁹⁷⁸ Clean Energy States Initial Comments at 10–11; CREA and NewSun Reply Comments at 57; TAPS Initial Comments at 8.

¹⁹⁷⁹ NOPR, 179 FERC ¶ 61,104 at P 179 (citing May Joint Task Force Tr. 67:6–8 (Dan Scripps) (“Specifically, there may be an opportunity to create a general framework that would be consistent across RTO seams.”); *id.* 68:12–18 (Ted Thomas) (agreeing with Chair Scripps that “the most effective place that FERC can operate is in the area where you have two RTOs and the real issue is getting them on the same page”)).

¹⁹⁸⁰ *Id.* (citing May Joint Task Force Tr. 67:14–17 (Dan Scripps) (“[W]e expect the affected systems study process to become increasingly critical as more renewable resources come online in renewable rich areas and transmission capacity becomes ever more scarce.”)).

¹⁹⁸¹ *Id.* P 180 (referencing May Joint Task Force Tr. 64:18–24 (Dan Scripps) (stating that “FERC may have a larger role to play in issues that cross RTO boundaries, particularly, around cross-RTO affected system studies where individual RTOs have limited control” and certainty “around the timing of affected systems studies”)).

¹⁹⁸² *Id.* P 181.

¹⁹⁸³ *Id.* P 182.

study process, and, as a result, interconnection customers are open to significant impacts and unreasonable timelines.¹⁹⁹¹ OMS highlights the limited control that RTOs/ISOs have regarding the timing of affected system studies.¹⁹⁹² NYISO and Ameren assert that more specific requirements regarding roles and responsibilities of parties in the affected system study process are needed.¹⁹⁹³ According to Invenenergy, the Commission has until now declined to impose any organized structure around the affected system study process because affected system network upgrades and associated costs were thought to be a relatively rare occurrence.¹⁹⁹⁴ Invenenergy contends that this has resulted in transmission providers conducting studies using variable study assumptions and standards and assigning significant system upgrade costs at any time, even after an interconnecting generating facility is already in operation.

1031. On the other hand, several commenters doubt whether standardization of affected system study processes is warranted and argue that adopting the NOPR proposal will cause timeline problems and delays.¹⁹⁹⁵ SDG&E contends that, based on its experience, affected system studies infrequently trigger the need for construction of new network upgrades, and thus it does not find the current process deficient.¹⁹⁹⁶ AECI states that its current coordination process is not in need of reform because it effectively coordinates with several affected systems and recognizes the unique situations presented at different seams.¹⁹⁹⁷

iii. Commission Determination

1032. We affirm the Commission's preliminary findings in the NOPR that there is a compelling need for affected system study process reforms. The record demonstrates that, absent reforms, affected system studies will likely remain ad hoc, continuing to create and increase delays in the interconnection process, which leads to increased costs for both interconnection customers and consumers, thereby

failing to ensure just and reasonable rates. As discussed by commenters, the existing affected system study processes lack certainty and transparency, which, in turn, create interconnection queue delays, interconnection customer withdrawals, and cost increases.¹⁹⁹⁸ Affected system study delays continue to be a major reason for interconnection queue delays.¹⁹⁹⁹ We concur with commenters that better coordination and more specific requirements concerning the role and responsibilities of affected system transmission providers are required to address the lack of certainty and transparency.²⁰⁰⁰ Additionally, we agree with commenters that affected system study process reforms will ensure that interconnection customers are able to connect in a reliable, efficient, transparent, and timely manner.²⁰⁰¹ We are unpersuaded by comments that standardizing the affected system study process will result in timeline problems and delays;²⁰⁰² we find such claims to be speculative and contrary to the Commission's experience with standardizing host transmission provider study processes via the *pro forma* LGIP.²⁰⁰³ We discuss specific aspects of the affected system-related NOPR proposals and final rule determinations below.

1033. In this final rule, an affected system transmission provider refers to a public utility transmission provider as the Commission does not have jurisdiction over the rates, terms, or conditions of service of non-public utility transmission providers. Thus, the requirements adopted in this final rule pertaining to affected system transmission providers are limited to public utility transmission providers.

b. Affected System Study Process

i. NOPR Proposal

1034. In the NOPR, the Commission proposed to revise the *pro forma* LGIP to include an affected system study process.²⁰⁰⁴ The proposed process includes an initial notification, an

affected system scoping meeting, a study process, the establishment of interconnection queue priority for the purposes of network upgrade cost allocation, the presentation of study results and an assessment of those results, and imposition of penalties if an affected system transmission provider fails to meet a study deadline. The Commission also proposed to add several definitions to the *pro forma* LGIP, including "affected system interconnection customer," "affected system network upgrade," "affected system scoping meeting," and "affected system study."

1035. The Commission proposed to require that the host transmission provider notify the affected system operator of a potential affected system impact caused by an interconnection request within 10 business days after the close of the first event giving rise to the identification of an affected system impact.²⁰⁰⁵ The Commission explained that, for host transmission providers using a cluster study process, this event could be (1) the cluster request window, (2) the customer engagement window, (3) the cluster study, or (4) the cluster restudy as part of the first-ready, first-served cluster study process. At the same time that the host transmission provider notifies the affected system operator, the Commission proposed to require the host transmission provider to provide the interconnection customer with a list of potential affected systems, along with relevant contact information. The Commission also proposed to require the host transmission provider to provide the affected system operator with data on a monthly basis, or more frequently as needed, about its transmission system and generation in its interconnection queue for the duration of the affected system study process.

1036. The Commission proposed several requirements on transmission providers acting as an affected system operator, whose transmission systems may be impacted by the proposed interconnection of a generating facility to a transmission system other than the transmission provider's transmission system.²⁰⁰⁶ The Commission proposed to require the affected system transmission provider, within 15 business days of receiving notification from the host transmission provider of an impact on its transmission system, to respond in writing indicating whether it intends to perform an affected system study.

¹⁹⁹¹ ACE–NY Initial Comments at 9.

¹⁹⁹² OMS Initial Comments at 16; *see also* PJM Reply Comments at 10 (arguing that an RTO/ISO has no authority to compel other RTOs/ISOs to complete interconnection studies on its deadline).

¹⁹⁹³ Ameren Initial Comments at 22; NYISO Initial Comments at 44.

¹⁹⁹⁴ Invenenergy Initial Comments at 39 (citing Order No. 2003, 104 FERC ¶ 61,103 at P 120).

¹⁹⁹⁵ Dominion Initial Comments at 36–37; PJM Initial Comments at 63; SPP Initial Comments at 17; WAPA Initial Comments at 10.

¹⁹⁹⁶ SDG&E Reply Comments at 3.

¹⁹⁹⁷ AECI Initial Comments at 6.

¹⁹⁹⁸ AEE Initial Comments at 34–35; ELCON Initial Comments at 7; SEIA Initial Comments at 34–35; Shell Initial Comments at 30.

¹⁹⁹⁹ *See* MISO, Informational Report Regarding Interconnection Study Delay for 4th Quarter 2022, Docket No. ER19–1960–004, attach. A at 8 (filed Feb. 14, 2023).

²⁰⁰⁰ Ameren Initial Comments at 22; NYISO Initial Comments at 44.

²⁰⁰¹ MISO Initial Comments at 8 n.20, 12.

²⁰⁰² Dominion Initial Comments at 36–37; PJM Initial Comments at 63; SPP Initial Comments at 17; WAPA Initial Comments at 10.

²⁰⁰³ *See* Order No. 2003, 104 FERC ¶ 61,103 at PP 10–12; Order No. 845, 163 FERC ¶ 61,043 at PP 4, 8, 39, 221, 239, 559.

²⁰⁰⁴ NOPR, 179 FERC ¶ 61,194 at P 183.

²⁰⁰⁵ *Id.* P 184.

²⁰⁰⁶ *Id.* P 185.

1037. The Commission proposed to require that the affected system transmission provider schedule an affected system scoping meeting within seven business days after providing written notification that it intends to conduct an affected system study.²⁰⁰⁷ The Commission also proposed to require that the affected system scoping meeting be held within seven business days after it is scheduled. The Commission further proposed to require that the affected system transmission provider include the affected system interconnection customer in the scoping meeting and use best efforts to include the transmission provider with whom interconnection has been requested. The Commission proposed to require the affected system transmission provider to share the schedule to complete the affected system study with all scoping meeting attendees within 15 business days after the close of the scoping meeting.

1038. The Commission proposed to require that the affected system transmission provider tender an affected system study agreement to the affected system interconnection customer within five business days of sharing the schedule for the affected system study.²⁰⁰⁸ The Commission also proposed to require the affected system interconnection customer to return the executed affected system study agreement within 10 business days of receipt.

1039. The Commission proposed to require the affected system transmission provider to use what it referred to as a “first-ready, first-served interconnection queue priority approach,” which would also determine how affected system network upgrade costs will be allocated by that transmission provider amongst interconnection customers in separate transmission systems.²⁰⁰⁹ Specifically, the Commission explained, in some situations, both affected system interconnection customers and interconnection customers on the transmission system of the affected system transmission provider cause the need for affected system network upgrades; in this case, each interconnection customer’s relative interconnection queue priority must be determined. The NOPR’s proposed first-ready, first-served interconnection queue priority approach would require the affected system transmission provider to assign the affected system interconnection customer a queue position in its interconnection queue

according to when the affected system interconnection customer executes an affected system study agreement, rather than when the affected system interconnection customer entered its host transmission provider’s interconnection queue. The Commission explained that such a position would be equivalent to that of a transmission provider’s own interconnection customer that had just received its cluster study report. The Commission also proposed to require the affected system transmission provider to allocate network upgrade costs among equally queued interconnection customers using a proportional impact method.

1040. The Commission proposed that the affected system transmission provider must provide the affected system interconnection customer with affected system study results within 90 calendar days after the receipt of the executed affected system study agreement.²⁰¹⁰ The Commission proposed to require that the affected system transmission provider include in the study results both the estimated costs for any network upgrades identified in the study and the timing for the construction of those network upgrades.

1041. The Commission proposed to require that the affected system transmission provider provide the affected system interconnection customer with an affected system facilities construction agreement within 30 calendar days after providing the affected system study results.²⁰¹¹ The Commission proposed that the affected system interconnection customer would then be required to notify the affected system transmission provider within five business days of executing the generator interconnection agreement with its host transmission provider whether it would like to execute the affected system facilities construction agreement or request that it be filed unexecuted with the Commission. The Commission proposed that the affected system transmission provider would then be required to execute, or file unexecuted, the affected system facilities construction agreement within five business days after receiving such direction from the affected system interconnection customer.

1042. The Commission proposed to impose financial penalties on affected system transmission providers that fail to timely complete affected system studies.²⁰¹² The Commission explained that a host transmission provider would

not be penalized for a late affected system study and did not require a host transmission provider to wait on the results of an affected system study to conduct its cluster study, so that any affected system study delay would not delay such a cluster study. The Commission clarified that the affected system transmission provider was the only entity that would be penalized for failure to timely complete an affected system study.

ii. Comments

(a) Comments in Support

1043. Multiple commenters support the NOPR proposal to create a standardized affected system study process in the *pro forma* LGIP.²⁰¹³ Consumers Energy asserts that standardization and better synchronization of timelines and processes between transmission providers will improve the interconnection process,²⁰¹⁴ and in ACORE’s opinion, will help to prevent the use of potentially unjust, unreasonable, and unduly discriminatory or preferential ad hoc approaches.²⁰¹⁵

1044. Multiple commenters support most or all of the proposed reforms.²⁰¹⁶ Pine Gate strongly supports the NOPR proposal’s definitive deadlines for affected system study completion and associated incentives, arguing that consistent, published criteria will help determine whether an affected system study is needed and will provide interconnection customers with the opportunity to conduct their own engineering analyses applying the criteria in order to better determine suitable locations for prospective

²⁰¹³ ACE–NY Initial Comments at 8–9; AEE Initial Comments at 34–35; AEP Initial Comments at 31; AES Initial Comments at 21; APPA–LPPC Initial Comments at 23; CREA and NewSun Initial Comments at 86; Duke Southeast Utilities Initial Comments at 12; EDF Renewables Initial Comments at 10; ELCON Initial Comments at 7; Enel Initial Comments at 2, 57; ENGIE Initial Comments at 8; Fervo Energy Initial Comments at 6; Google Initial Comments at 5–6; Idaho Power Initial Comments at 11; NextEra Initial Comments at 31; Ohio Commission Consumer Advocate Initial Comments at 13; PacificCorp Initial Comments at 36; Pattern Energy Initial Comments at 24; Pine Gate Initial Comments at 41; PPL Initial Comments at 19; SEIA Initial Comments at 34; Shell Initial Comments at 29.

²⁰¹⁴ Consumers Energy Initial Comments at 8; *see also* Clean Energy Associations Initial Comments at 47–48; Illinois Commission Initial Comments at 9; CREA and NewSun Initial Comments at 86–87; ENGIE Initial Comments at 8; U.S. Chamber of Commerce Initial Comments at 10–11.

²⁰¹⁵ ACORE Initial Comments at 4–5; *see also* EDF Renewables Initial Comments at 11; Invenenergy Initial Comments at 41.

²⁰¹⁶ ACE–NY Initial Comments at 9; Google Initial Comments at 23; Pine Gate Initial Comments at 42.

²⁰⁰⁷ *Id.* P 186.

²⁰⁰⁸ *Id.* P 188.

²⁰⁰⁹ *Id.* P 189.

²⁰¹⁰ *Id.* P 190.

²⁰¹¹ *Id.* P 191.

²⁰¹² *Id.* P 192.

generating facilities.²⁰¹⁷ AEP supports the deadlines related to initiating the affected system study process, stating that deadlines would help to provide transparency and ensure that the process is initiated in a timely fashion.²⁰¹⁸ Interwest, National Grid, and Invenery support the proposal to standardize the affected system study engagement and participation process, asserting that the reforms are a significant improvement over the status quo.²⁰¹⁹

(b) Comments in Opposition

1045. Multiple commenters oppose the NOPR's affected system study process proposal.²⁰²⁰ Some commenters assert that the proposed process will impose arbitrary and strict deadlines and will be unworkable.²⁰²¹ Dominion and SDG&E assert that timing for affected system studies should not be standardized because the necessary study assumptions depend on timing of studies in the cluster study process.²⁰²² Dominion contends that, if an affected system study is performed too early, modeling assumptions may not yield meaningful results, resulting in incorrect cost estimates likely to cause restudies and late-stage withdrawals.²⁰²³ PJM argues that studying affected system interconnection requests before all studies have been completed, or studying them for ERIS, could cause operational problems, require curtailment, or lead to late-stage withdrawals after the full scope of necessary network upgrades is known.²⁰²⁴ Similarly, SPP states that, because the NOPR proposal does not prescribe any particular level of precision for the cost and timing estimates associated with affected system upgrades, the results received by the interconnection customer could lack

sufficient detail and lead to higher-than-anticipated costs.²⁰²⁵

1046. Several commenters argue that certain elements of the NOPR proposal do not achieve the goal of increased efficiency.²⁰²⁶ Recognizing that affected system studies require separate case preparations and a greater level of coordination between parties, SDG&E agrees with CAISO that the proposal has the potential to increase the number of affected system studies, with limited benefit.²⁰²⁷ National Grid cautions that standardizing the affected system study process will necessitate host and affected system transmission providers to devote more resources to that process, which could cause delays.²⁰²⁸ PJM contends that, although the NOPR proposal provides that transmission providers conducting cluster studies are not required to delay those studies by waiting for the results of affected system studies, such delays will be inevitable under the proposed process due to the additional steps and coordination required and the overlap in personnel and deadlines.²⁰²⁹ PJM and National Grid both express concerns regarding the justness and reasonableness of the NOPR's penalty regime given the potential for additional delays in affected system studies.²⁰³⁰

1047. Other commenters argue that the NOPR proposal does not go far enough to improve efficiency in the affected system study process. North Carolina Commission and Staff call for more comprehensive reforms, recognizing the need for coordination between transmission providers to avoid unnecessary expense and system disruption.²⁰³¹ WAPA recommends that the Commission consider an alternative strategy in which the host transmission provider includes contingencies and sensitivity scenarios involving potentially affected systems in its own studies.²⁰³² PJM suggests that, rather than the NOPR's "overly prescriptive" approach, the Commission should require a stated affected system coordination structure with defined steps and checkpoints, similar to the process PJM has been working to implement with neighboring systems

through its joint operating agreements.²⁰³³

(c) Comments on Specific Proposal

(1) Definitions

1048. PPL argues that the proposed term "affected system interconnection customer" is confusing and recommends that the Commission either remove "interconnection" or consider the term "direct connect system customer," asserting that the affected system interconnection customers are not interconnection customers working their way through the affected system transmission provider's interconnection process.²⁰³⁴ PPL states that some transmission providers combine interconnection and transmission and argues that removing the word "interconnection" better accommodates such a combined group.

1049. Several commenters ask for clarification or modification of the terms "affected system" or "affected system operator." National Grid asserts that the Commission should clarify whether an affected system solely includes transmission owners in each region or also includes neighboring RTOs/ISOs or transmission providers in neighboring regions.²⁰³⁵ NRECA requests that the Commission clarify the scope of several definitions so that transmission providers will not overlook a proposed interconnection request's impact on an electric cooperative's affected system.²⁰³⁶

(2) Notification of Affected System Impacts

1050. Regarding the proposed triggering event at the close of (1) the cluster request window, (2) the customer engagement window, (3) the cluster study, or (4) the cluster restudy for a host transmission provider to notify an affected system operator, PacifiCorp argues that the 10-business day notification obligation begins with an ill-defined standard in the NOPR—the "close of first event giving rise to the identification of an affected system

²⁰¹⁷ Pine Gate Initial Comments at 42–43; *see also* ENGIE Initial Comments at 9–10.

²⁰¹⁸ AEP Initial Comments at 31.

²⁰¹⁹ Interwest Reply Comments at 16–17; Invenery Initial Comments at 40; National Grid Initial Comments at 35.

²⁰²⁰ Dominion Initial Comments at 36–37; National Grid Initial Comments at 37; NextEra Initial Comments at 32; NextEra Reply Comments at 4; North Carolina Commission and Staff Initial Comments at 24; Pacific Northwest Utilities Initial Comments at 15; PJM Initial Comments at 63–64; SDG&E Reply Comments at 3; SPP Initial Comments at 17; WAPA Initial Comments at 10–11.

²⁰²¹ Dominion Initial Comments at 37; NextEra Initial Comments at 32; NextEra Reply Comments at 4; PJM Initial Comments at 63; SDG&E Reply Comments at 3.

²⁰²² Dominion Initial Comments at 36–37; SDG&E Reply Comments at 3.

²⁰²³ Dominion Initial Comments at 37.

²⁰²⁴ PJM Initial Comments at 64.

²⁰²⁵ SPP Initial Comments at 17.

²⁰²⁶ *Id.*; CAISO Initial Comments at 28; Dominion Initial Comments at 36–37; National Grid Initial Comments at 37; PJM Initial Comments at 63; SDG&E Reply Comments at 3; WAPA Initial Comments at 10.

²⁰²⁷ SDG&E Reply Comments at 3.

²⁰²⁸ National Grid Initial Comments at 37.

²⁰²⁹ PJM Initial Comments at 63.

²⁰³⁰ *Id.*; National Grid Initial Comments at 37.

²⁰³¹ North Carolina Commission and Staff Initial Comments at 24.

²⁰³² WAPA Initial Comments at 10–11.

²⁰³³ PJM Initial Comments at 64.

²⁰³⁴ PPL Initial Comments at 19–20.

²⁰³⁵ National Grid Initial Comments at 35.

²⁰³⁶ NRECA Initial Comments at 9, 36–39. More specifically, NRECA contends that because some transmission providers interpret the definition of "Affected System" to mean a Commission-jurisdictional transmission system and refuse to recognize that other electric systems may be affected systems, under the *pro forma* LGIP and *pro forma* LGIA, the Commission should provide that an "Affected System" means any affected "electric system," not just an affected "Transmission System," and that an "Affected System Operator" means any "entity that operates an Affected System," not just a transmission owner or transmission provider. *Id.* at 36–37, 39.

impact.”²⁰³⁷ PacifiCorp requests that the Commission clarify this standard and further clarify that transmission providers will not be penalized if affected system issues are not discovered until later in the interconnection process, as such impacts may not always be readily apparent.

1051. Some commenters oppose the proposed requirement in section 3.6.1 of the *pro forma* LGIP that a host transmission provider, within 10 business days of the triggering event that identifies a potential affected system impact, notify an affected system operator of such potential impact.²⁰³⁸ WAPA states that the initial notification requirement could unnecessarily increase costs because the notification could be received before the system impact study on the host transmission provider’s transmission system is complete and thus before any potential network upgrades are identified. Duke Southeast Utilities assert that the notification time frame should be 15 business days because: (1) the host transmission provider may need additional time to notify multiple affected system operators of a potential impact within the same prescribed time frame; and (2) the host transmission provider may need additional time to gather all necessary information and compile adequate notification packages, due to the need to include a technical basis for the affected system impact.²⁰³⁹ CAISO states that the Commission should require transmission providers to begin the notification process shortly after interconnection customers receive their initial study results and face higher financial requirements to proceed in the interconnection queue.²⁰⁴⁰ CAISO explains that this is when the majority of interconnection customers withdraw their interconnection requests because they do not wish to put more money at risk. CAISO argues that using this smaller pool of interconnection requests will enable faster affected system studies due to decreased volume and more realistic study assumptions.

1052. A few commenters provide suggestions on the content of the notice that the host transmission provider sends to the affected system operator. Specifically, APPA–LPPC propose that *pro forma* LGIP section 3.6.1 be revised

to include the following: “Along with notification to Interconnection Customer of the list of potential Affected Systems, Transmission Provider will notify Interconnection Customer and such Affected Systems whether a single set of studies (Feasibility, System Impact and Facilities Studies) may be sufficient to manage all related impacts. A single set of studies may be undertaken upon agreement of all parties.”²⁰⁴¹ Duke Southeast Utilities suggest that, in addition to such notification, the host transmission provider should provide evidence of the potential impact, which they assert will assist the affected system operator in: (1) understanding the host transmission provider’s engineering analysis and assumptions that led it to identify the potential impact; and (2) determining whether to conduct an affected system study.²⁰⁴²

1053. Regarding to whom the host transmission provider should send the notification, NRECA argues that the notification requirement should extend to all potential affected systems and any affected system operators to allow electric cooperative affected system transmission providers to coordinate with the transmission provider and interconnection customer to timely address any affected system impacts.²⁰⁴³ Tri-State states that *pro forma* LGIP section 3.6.1 needs clarification as to whom the notice is to be directed.²⁰⁴⁴

1054. Other commenters oppose the proposed requirement in sections 3.6.2 and 9 of the *pro forma* LGIP that affected system transmission providers must respond to the notification of affected system impacts within 15 business days.²⁰⁴⁵ Bonneville advocates that the response time be flexible and allow for reasonable extensions.²⁰⁴⁶ Bonneville argues that, if affected system transmission providers only have 15 business days to respond, they will need to err on the side of caution, which could lead to more affected system studies than necessary, resulting in study delays. Duke Southeast Utilities assert that the response time frame should be 20 business days, as the affected system transmission provider may need additional time if: (1) it has received multiple notifications within the same time frame; (2) it needs to request additional data to determine if

it intends to perform a study; (3) its own staff is limited because of deadlines within its own interconnection process; or (4) it wishes to perform a more detailed review to ensure that performing a study does not become the default approach.²⁰⁴⁷ Dominion asserts that a 15-business day requirement could be reasonable if all affected system notifications were provided at the same time.²⁰⁴⁸ Dominion contends that piecemeal notifications make it difficult for an affected system transmission provider to know if an affected system study is needed until all requests are received.

1055. Additionally, a few commenters contend that the NOPR proposal was unclear what would happen if an affected system operator fails to respond within 15 business days. Enel and ENGIE contend that it is unclear what the consequence is for an affected system transmission provider’s failure to meet the response deadline.²⁰⁴⁹ Enel encourages the Commission to add language to the *pro forma* LGIP to provide that the affected system transmission provider will forfeit its right to perform an affected system study if it fails to meet the response deadline, as a lack of incentive (and relevant penalty) to respond could result in delayed study results.²⁰⁵⁰ ENGIE suggests that the affected system transmission provider bear any financial consequences.²⁰⁵¹ Pacific Northwest Utilities note that the non-jurisdictional affected system operator is not required to respond to the requirements under proposed *pro forma* LGIP section 3.6.1 and may not have the mechanisms in place to respond within 15 business days.²⁰⁵²

(3) Timing of Affected System Studies

1056. Several commenters argue that beginning affected system studies too early may yield unreliable results that could lead to restudies and late-stage withdrawals, among other problems.²⁰⁵³ NextEra asserts that it is unlikely that the host transmission provider could provide useful information to the

²⁰⁴⁷ Duke Southeast Utilities Initial Comments at 13 (noting that PJM often sends notice of multiple potential impacts from a single cluster).

²⁰⁴⁸ Dominion Initial Comments at 37–38.

²⁰⁴⁹ Enel Initial Comments at 59–60; ENGIE Initial Comments at 8.

²⁰⁵⁰ Enel Initial Comments at 59–60; *see also* Invenery Initial Comments at 42–44.

²⁰⁵¹ ENGIE Initial Comments at 8.

²⁰⁵² Pacific Northwest Utilities Initial Comments at 17.

²⁰⁵³ CAISO Initial Comments at 28–29; Dominion Initial Comments at 37; Enel Initial Comments at 59; Idaho Power Initial Comments at 11; NextEra Initial Comments at 32–33; WAPA Initial Comments at 11–12.

²⁰³⁷ PacifiCorp Initial Comments at 36.

²⁰³⁸ *Id.*; CAISO Initial Comments at 27; Duke Southeast Utilities Initial Comments at 12; PG&E Reply Comments at 5; WAPA Initial Comments at 11.

²⁰³⁹ Duke Southeast Utilities Initial Comments at 12.

²⁰⁴⁰ CAISO Initial Comments at 29.

²⁰⁴¹ APPA–LPPC Initial Comments at 25–26.

²⁰⁴² Duke Southeast Utilities Initial Comments at 13.

²⁰⁴³ NRECA Initial Comments at 38–39.

²⁰⁴⁴ Tri-State Initial Comments at 28.

²⁰⁴⁵ Bonneville Initial Comments at 18; CAISO Initial Comments at 27; PG&E Reply Comments at 5; WAPA Initial Comments at 11.

²⁰⁴⁶ Bonneville Initial Comments at 18.

affected system transmission provider at an earlier stage.²⁰⁵⁴ CAISO and Idaho Power argue that the proposal to begin the affected system study process as soon as potential impacts are identified will slow affected system studies or result in unnecessary work for the affected system transmission provider because the impacts will be assessed based on transmission providers' entire interconnection queues, even though many interconnection customers will withdraw early in the interconnection process.²⁰⁵⁵

1057. CAISO takes issue with the proposed deadlines for completing affected system studies and claims that the size of modern interconnection queues makes such quick deadlines impossible. According to CAISO, such deadlines would result in all affected system transmission providers exercising their rights to study every interconnection customer because they have no time to determine whether studies are necessary.²⁰⁵⁶

1058. Invenergy argues that affected system transmission providers should be subject to a deadline for participation in the process.²⁰⁵⁷

1059. Invenergy asserts that, although the NOPR clearly provides that a host transmission provider is not required to pause its interconnection process if an affected system transmission provider does not timely complete its study, the reality is that this could leave interconnection customers in the same position they are in now—being forced under the host transmission provider's timeline to move forward in the study process and to execute an LGIA (and put money at risk) without the benefit of affected system study results. Invenergy contends that the solution is to establish a clear deadline (e.g., LGIA execution) by which time the affected system transmission provider must have completed its studies and identified affected system network upgrades; otherwise, it loses any right to assign affected system network upgrades to an interconnection request in the future. Invenergy states that, if the Commission does not impose such a deadline, it should at least permit interconnection customers that have been forced under host transmission provider's rules to execute LGIAs in the absence of affected system study information to: (1) delay posting security and funding network upgrades under that LGIA until the affected system study results are

received; and (2) have the opportunity to withdraw without penalty after receiving affected system study results if the interconnection customer's assigned costs increased by more than 25% compared to costs allocated by the host transmission provider.²⁰⁵⁸

1060. Several commenters argue that an affected system study timeline should be consistent with the cluster study process on the host transmission provider's transmission system because it can impact the host transmission provider's study.²⁰⁵⁹ APS requests additional clarification on how the proposed affected system study process correlates to the host system studies and aligns with the host system's requirements.²⁰⁶⁰ Enel acknowledges that the 90-calendar day affected system study deadline may be problematic for transmission providers that have 150 calendar days to run the same scope of studies for their own interconnection requests.²⁰⁶¹ AEP stresses the need for coordination between these studies, which it argues would provide the interconnection customer with a more meaningful cost estimate, with coordination resulting in affected system and host system study results being presented around the same time.²⁰⁶² Enel contends that the affected system transmission provider should be required to complete any affected system impact studies no later than the host transmission provider's deadline to complete the cluster restudy.²⁰⁶³ Enel asserts that this initial affected system study should be completed before the interconnection customer must satisfy requirements to enter the facilities study, at which point the interconnection customer faces a higher withdrawal penalty. Enel contends that the NOPR proposal could result in an affected system transmission provider being notified that an affected system study is needed after final results of the cluster restudy are complete, meaning that an affected system study may not be completed until or even after the execution of an LGIA. Enel argues that, after affected system studies are complete, an interconnection customer could have its costs double just before (or even after) an LGIA is executed, and penalty-free withdrawal under proposed *pro forma* LGIP section 3.7.1 would

only apply if assigned interconnection costs increase by more than 100%.

1061. Several commenters argue that the timing of affected system studies should be structured to reduce potential burdens. Idaho Power suggests that affected system studies be performed after the initial cluster study to minimize unnecessary work and ensure that only interconnection requests moving into the cluster restudy have their affected system impacts studied.²⁰⁶⁴ Dominion notes that PJM recently sought to address timing issues by incorporating affected system studies into later phases of its cluster studies.²⁰⁶⁵

(4) Affected System Scoping Meeting

1062. Several commenters express concern about the proposed requirement in section 3.6.2 of the *pro forma* LGIP that the affected system transmission provider (1) schedule an affected system scoping meeting within seven business days after providing written notification that it intends to conduct an affected system study and (2) hold that meeting within seven business days after it is scheduled.²⁰⁶⁶ Bonneville and Dominion assert that holding the scoping meeting within this time frame might not be realistic because these meetings are contingent upon the availability of multiple attendees.²⁰⁶⁷ CAISO contends that the proposal to schedule affected system scoping meetings within seven business days is impossible and that affected system transmission providers would simply hold scoping meetings to comply, having had no time to prepare anything meaningful for the meeting.²⁰⁶⁸ MISO argues that the Commission should allow each pair of transmission providers to develop their own schedule for the scoping process rather than mandating a one-size-fits-all schedule.²⁰⁶⁹ MISO asserts that this is particularly true for RTOs/ISOs with joint operating and/or planning agreements, which MISO claims should

²⁰⁵⁴ Idaho Power Initial Comments at 11.

²⁰⁵⁵ Dominion Initial Comments at 37 (citing PJM Interconnection, L.L.C., Tariff Revisions for Interconnection Process Reform Transmittal Letter, Docket No. ER22–2110–000, at 55, 59–60 (filed June 14, 2022)).

²⁰⁵⁶ *Id.* at 38; Bonneville Initial Comments at 18–19; CAISO Initial Comments at 28; MISO Initial Comments at 86. WAPA also asserts that a meeting after the affected system study is completed would be more beneficial than the proposed affected system scoping meeting, as the proposed meeting would only provide speculative impacts that might be caused by an interconnection request. WAPA Initial Comments at 12.

²⁰⁵⁷ Bonneville Initial Comments at 18–19; Dominion Initial Comments at 38.

²⁰⁵⁸ CAISO Initial Comments at 28.

²⁰⁵⁹ MISO Initial Comments at 86.

²⁰⁵⁸ *Id.* at 25, 43–44.

²⁰⁵⁹ APPA–LPPC Initial Comments at 26; AEP Initial Comments at 31; Bonneville Initial Comments at 21; NV Energy Initial Comments at 11.

²⁰⁶⁰ APS Initial Comments at 19–20.

²⁰⁶¹ Enel Initial Comments at 65.

²⁰⁶² AEP Initial Comments at 31–32.

²⁰⁶³ Enel Initial Comments at 58.

²⁰⁵⁴ NextEra Initial Comments at 32–33.

²⁰⁵⁵ CAISO Initial Comments at 28–29; Idaho Power Initial Comments at 11.

²⁰⁵⁶ CAISO Initial Comments at 27–28.

²⁰⁵⁷ Invenergy Initial Comments at 41.

be able to justify their existing procedures on compliance via the independent entity variation standard. Bonneville emphasizes flexibility and proposes that the phrase “unless otherwise agreed to” be added to this requirement.²⁰⁷⁰

1063. Pacific Northwest Utilities state that, provided that regulated utilities properly invite the non-jurisdictional affected system transmission provider to the affected system scoping meeting, the Commission should clarify that such steps are sufficient to demonstrate that the regulated transmission provider has met its requirements under this section.²⁰⁷¹ Further, Pacific Northwest Utilities note that the non-jurisdictional affected system transmission provider is not required to respond to the requirements under section 3.6.2 of the *pro forma* LGIP and may not be prepared to attend the affected system scoping meeting.

(5) Affected System Study Process

1064. Multiple commenters advocate for changes to the proposed requirement in section 3.6.3 of the *pro forma* LGIP that the transmission provider provide data monthly, or more frequently as needed, regarding the amount and location of generation in the transmission provider’s interconnection queue, as well as updated information about the transmission provider’s transmission system. NRECA states that the proposed information sharing requirement is essential but should not be limited to notifying or providing data to a transmission provider acting as an affected system operator but should extend to all potential affected systems and any affected system operators to allow electric cooperative affected system operators to perform studies and coordinate with the transmission provider and interconnection customer to timely address any affected system impact.²⁰⁷² MISO argues that the Commission should not impose an arbitrary time frame for data reports and suggests that such information should be provided only at times when it changes.²⁰⁷³ MISO asserts that updates are not likely to be helpful to interconnection customers until the next study stage has been completed. NV Energy requests that the Commission move to quarterly reporting because monthly updates would not be helpful and may provide dramatic swings in study results, which could

trigger the need for an affected system study to start over.²⁰⁷⁴ NV Energy also requests that assumptions for studies be coordinated between the host transmission provider and affected system operator and that updates become quarterly after the study has been issued.

1065. LADWP requests clarification as to what specific data “updated information about the transmission provider’s transmission system” refers.²⁰⁷⁵

1066. Bonneville and Dominion argue that the proposed information sharing requirement is duplicative or unnecessary. Bonneville posits that the requirement is duplicative of information that is already available on OASIS.²⁰⁷⁶ Dominion argues that this requirement is overly cumbersome given transmission providers’ limited resources and numerous obligations and may produce data that the affected system may not even want or use.²⁰⁷⁷ Dominion asserts that it would be more efficient to require the host transmission provider to provide such information upon request.

(6) Affected System Queue Position

1067. Several commenters support the NOPR proposal’s first-ready, first-served interconnection queue priority approach in proposed section 9.2 of the *pro forma* LGIP.²⁰⁷⁸ OMS and MISO argue that MISO and SPP’s recently approved changes to their joint operating agreement to modify the queue priority and coordination rules for affected system studies conform to the NOPR’s proposed approach and are an equitable means for sharing costs for network upgrades amongst interconnection customers in different regions and encourages timely processing of affected system impacts.²⁰⁷⁹

1068. However, Bonneville and NextEra assert that the NOPR does not adequately address the important issue of queue priority coordination.²⁰⁸⁰ NextEra argues that the notion of interconnection customers racing to be the first (or perhaps the last) to sign an affected system study agreement as a

way of setting queue priority will result in conflict.²⁰⁸¹ NextEra contends that, instead, the goal should be to ensure that transmission providers acting as affected systems perform affected system studies on a timeline that is consistent with the host transmission system’s stated schedule so that results are delivered in a timely manner and interconnection customers can be well-informed in their decision making. NextEra recommends that each pair of transmission providers whose interconnection customers affect each other’s system enter into agreements, to be filed with the Commission, specifying how they will ensure appropriate queue priority in affected system studies.

1069. Bonneville argues that the queue priority for affected system interconnection requests should be determined by giving priority to an interconnection request in an affected system study over any interconnection request that has not yet started the cluster study on the host transmission system.²⁰⁸² Bonneville contends that if an affected system interconnection request receives higher queue priority relative to any interconnection requests for which the host transmission provider has started the cluster study but has not yet provided cluster study reports, then such a queue priority framework would introduce uncertainty into the cluster study process, as an affected system notification could be received during the cluster study process and trigger a restudy, delays, and increased costs to the participants of the cluster study.

1070. Other commenters argue for different approaches to affected system queue priority or allocation of affected system network upgrade costs. ENGIE argues that, although assigning an affected system queue position appears beneficial for assigning network upgrade costs, it could also create delays for the interconnection customer because it would be beholden to two separate interconnection queues.²⁰⁸³ ENGIE recommends that the Commission allocate network upgrade costs outside of the interconnection queue on an *ex post* basis to avoid the double-queue situation.

1071. Enel asserts that the NOPR’s proposed queue priority determination method will result in additional uncertainty about timing of affected system studies, incomplete and inaccurate cluster study results, and the

²⁰⁷⁰ Bonneville Initial Comments at 19.

²⁰⁷¹ Pacific Northwest Utilities Initial Comments at 17.

²⁰⁷² NRECA Initial Comments at 38–39.

²⁰⁷³ MISO Initial Comments at 86.

²⁰⁷⁴ NV Energy Initial Comments at 12.

²⁰⁷⁵ LADWP Initial Comments at 4 (citing NOPR, 179 FERC ¶ 61,194 at P 187).

²⁰⁷⁶ Bonneville Initial Comments at 19.

²⁰⁷⁷ Dominion Initial Comments at 38.

²⁰⁷⁸ Alliant Energy Initial Comments at 7; EDF Renewables Initial Comments at 11; Invenery Initial Comments at 40; MISO Initial Comments at 11–12; NextEra Reply Comments at 5; OMS Initial Comments at 17.

²⁰⁷⁹ MISO Initial Comments at 88; OMS Initial Comments at 17 (citing *Sw. Power Pool, Inc.*, 179 FERC ¶ 61,148 (2022)).

²⁰⁸⁰ Bonneville Initial Comments at 20; NextEra Reply Comments at 5.

²⁰⁸¹ NextEra Reply Comments at 5.

²⁰⁸² Bonneville Initial Comments at 20.

²⁰⁸³ ENGIE Initial Comments at 9.

need for restudies.²⁰⁸⁴ Although Enel agrees that establishing queue priority between host and affected system interconnection requests is essential, Enel disagrees with the NOPR proposal to establish the affected system interconnection request's queue priority according to when the affected system interconnection customer executes an "affected system study."²⁰⁸⁵ Enel states that this must be a typo that should say "affected system study agreement." Enel also notes that proposed *pro forma* LGIP section 9.2 does not clearly state which event establishes the date by which an affected system interconnection request receives its queue priority relative to host system interconnection requests and requests clarification on this point.²⁰⁸⁶ Enel further states that, if affected system queue priority is established based on an individual date, transmission providers would need to process affected system interconnection requests serially rather than by cluster and recommends that the Commission adopt a queue priority framework in which affected system interconnection requests would be studied in the same cluster grouping that the host transmission provider uses.²⁰⁸⁷ Enel also recommends that queue priority be assigned based on the deadline for entry into the host transmission provider's interconnection queue.

1072. Several commenters request or propose specific clarifications regarding proposed *pro forma* LGIP section 9.2, including how the proposed first-ready, first-served interconnection queue priority approach interacts with cluster studies.²⁰⁸⁸ EDF Renewables recommends that, to better synchronize the host and affected system study processes, the affected system operator should establish queue priority between the host and affected system based on the interconnection request achieving a certain stage in the host system's study process, rather than the date the interconnection request was submitted.²⁰⁸⁹ APPA-LPPC ask that the Commission clarify proposed *pro forma* LGIP section 9.2 and the related obligations under *pro forma* LGIP sections 9.8 and 4.2.3.²⁰⁹⁰ APPA-LPPC state that, as drafted, proposed *pro forma* LGIP section 9.2 suggests a queue position for an interconnection customer independent of ongoing and

pending cluster studies while *pro forma* LGIP section 9.8 and cross-referenced *pro forma* LGIP section 4.2.3 contemplate the allocation of associated costs incurred by affected systems in the context of a cluster study.

1073. Additionally, MISO recommends that the final rule clarify an enforcement mechanism, such as loss of relative queue priority used under the MISO-SPP joint operating agreement, for the proposed first-ready, first-served interconnection queue priority approach.²⁰⁹¹

(7) Affected System Study Agreement

1074. Dominion and Duke Southeast Utilities suggest doubling the amount of time that transmission providers would have under proposed *pro forma* LGIP section 9.3 to tender an affected system study agreement after sharing the schedule for the affected system study.²⁰⁹² Duke Southeast Utilities assert that it usually takes more than five business days to receive all needed interconnection request information to draft an affected system study agreement (an often iterative process).²⁰⁹³ Duke Southeast Utilities state that more time will help affected system transmission providers that may need to draft numerous affected system study agreements within the same time frame.

1075. Bonneville requests clarification as to whether the failure to execute the affected system study agreement, execute the affected system facilities construction agreement, or provide the affected system study deposit would be grounds for removal from the host transmission provider's interconnection queue.²⁰⁹⁴

(8) Affected System Study Scope and Timeline

1076. Many commenters, including transmission providers, argue that the Commission should clarify the scope of required affected system studies by addressing whether an affected system facilities study will be required under section 9 of the *pro forma* LGIP.²⁰⁹⁵ For example, Duke Southeast Utilities state that the NOPR proposal is unclear on whether "affected system study results" is intended to reflect the results of a

system impact study, a facilities study, or a combination thereof.²⁰⁹⁶

1077. Several commenters request that the Commission explicitly include a facilities study in the affected system study process.²⁰⁹⁷ Duke Southeast Utilities, Enel, NV Energy, and SPP assert that explicitly including a facilities study in the affected system study process would provide both affected system transmission provider and affected system interconnection customer with more refined estimated costs and construction timelines.²⁰⁹⁸ Pattern Energy argues that a facilities study is a useful tool for scoping and pricing network upgrades and other facilities necessary to mitigate transmission-related contingencies,²⁰⁹⁹ and LADWP argues that a facilities study would improve the efficiency of the overall process by minimizing discrepancies discovered after execution of a construction agreement.²¹⁰⁰ APPA-LPPC request that the Commission confirm that it does not intend to foreclose the possibility of affected system facilities studies being conducted, as a facilities study is needed to ascertain the precise nature of any network upgrades that an interconnection customer may cause.²¹⁰¹

1078. Shell argues for including further information regarding local transmission planning from neighboring transmission providers in affected system study results because early identification of all transmission-related mitigation will ensure that interconnection customers can anticipate affected system network upgrades as early as possible.²¹⁰²

1079. Several commenters, including transmission providers, argue that the 90-calendar day time frame for completion of the affected system study, from the date an affected system transmission provider receives an executed affected system study agreement from the affected system interconnection customer to the date the affected system transmission provider presents the affected system study report to the affected system

²⁰⁹⁶ Duke Southeast Utilities Initial Comments at 15.

²⁰⁹⁷ *Id.*; APPA-LPPC Initial Comments at 26; Enel Initial Comments at 65; LADWP Initial Comments at 4; NV Energy Initial Comments at 11; Pattern Energy Initial Comments at 25; SPP Initial Comments at 16–17.

²⁰⁹⁸ Duke Southeast Utilities Initial Comments at 15; Enel Initial Comments at 65; NV Energy Initial Comments at 11; SPP Initial Comments at 16–17.

²⁰⁹⁹ LADWP Initial Comments at 4; Pattern Energy Initial Comments at 24–25.

²¹⁰⁰ LADWP Initial Comments at 4.

²¹⁰¹ APPA-LPPC Initial Comments at 26.

²¹⁰² Shell Initial Comments at 31.

²⁰⁸⁴ Enel Initial Comments at 62–63.

²⁰⁸⁵ *Id.* at 61.

²⁰⁸⁶ *Id.* at 61–62.

²⁰⁸⁷ *Id.* at 62–63.

²⁰⁸⁸ APPA-LPPC Initial Comments at 26; Idaho Power Initial Comments at 11; NextEra Initial Comments at 33.

²⁰⁸⁹ EDF Renewables Initial Comments at 11.

²⁰⁹⁰ APPA-LPPC Initial Comments at 26.

²⁰⁹¹ MISO Initial Comments at 89.

²⁰⁹² Dominion Initial Comments at 38; Duke Southeast Utilities Initial Comments at 14.

²⁰⁹³ Duke Southeast Utilities Initial Comments at 14.

²⁰⁹⁴ Bonneville Initial Comments at 20–21.

²⁰⁹⁵ APPA-LPPC Initial Comments at 26; Duke Southeast Utilities Initial Comments at 15; Enel Initial Comments at 65; Pattern Energy Initial Comments at 24.

interconnection customer, as proposed in *pro forma* LGIP section 9.6, does not provide affected system transmission providers sufficient time to complete the study.²¹⁰³ Bonneville requests that the Commission clarify whether the schedule to complete the affected system study could include a due date that is in excess of the 90-calendar day timeline.²¹⁰⁴ Tri-State requests the addition of “and deposit” to proposed *pro forma* LGIP section 9.6, such that the 90-calendar day period would begin after the receipt of the executed affected system study agreement and deposit.²¹⁰⁵ MISO requests that the Commission clarify that the study clock would commence only after all necessary data has been received.²¹⁰⁶

1080. Other commenters support the NOPR proposal or argue that affected system interconnection customers should be given the results of affected system studies as early as possible. Interwest states that it agrees with commenters that the proposed 90-calendar day time limit, combined with monetary penalties, will help instill discipline and support investments needed to meet the timelines.²¹⁰⁷ Shell asserts that affected system study results must be provided before or in conjunction with system impact study results on the host transmission system, or at the latest, before interconnection customers are required to proceed to the facilities study on the host transmission system, as interconnection customers typically pursue financing after receiving system impact study results and before advancing to the facilities study and doing so will avoid last minute network upgrade costs that undermine project viability and cause interconnection queue withdrawals.²¹⁰⁸ Shell supports an option for interconnection customers to pause the interconnection study process on the host transmission system for an affected system study to “catch-up” if such an option lowers the risk of receiving late affected system study results. Similarly, Interwest asserts that affected system interconnection customers should be permitted to delay posting security and funding network upgrades, if there are delays in affected system studies, which Interwest contends is a reasonable accommodation that allows such

affected system interconnection customers to reduce risks.²¹⁰⁹

1081. Additionally, WAPA expresses concern about its ability to tender an affected system facilities construction agreement to an interconnection customer within 30 calendar days of providing the affected system study report, as proposed in *pro forma* LGIP section 9.9.²¹¹⁰

1082. Several commenters oppose, ask for clarification, or propose alternatives regarding the scope and applicability of the financial penalties that would apply if a transmission provider does not meet the study completion deadlines set forth in proposed *pro forma* LGIP section 9.6. AEI asserts that, so long as affected system transmission providers are using good utility practice and appropriate due diligence to complete affected system studies, there is no benefit of imposing additional penalties on affected system transmission providers.²¹¹¹ ENGIE states that it is unclear who bears the financial penalties for late affected system studies.²¹¹²

1083. MISO, in contrast, interprets the NOPR proposal as applying penalties only to the affected system transmission provider, and recommends that the Commission recognize that some delays may be beyond the control of the affected system transmission provider and not penalize affected system transmission providers for third-party delays.²¹¹³ Similarly, Duke Southeast Utilities express concern that penalties could be levied against affected system transmission providers for delays beyond their control, and further argue that the Commission should consider imposing multilateral penalties on all entities in accordance with their individual obligations set forth in the proposed process.²¹¹⁴

1084. Several commenters state that the cost estimates provided in affected system study results should be non-binding, or that certain types of cost

increases related to affected system study results should allow interconnection customers to withdraw their interconnection requests without penalty.²¹¹⁵ Similarly, Shell asserts that the Commission should allow penalty-free withdrawals in the event of late affected system network upgrade costs that surpass a certain threshold, arguing that such circumstances are beyond the interconnection customer’s control.²¹¹⁶ PacifiCorp states that any cost estimates identified by affected system operators should be non-binding, given that they could be subject to change.²¹¹⁷

1085. Pattern Energy believes that the Commission should provide incentives for transmission providers to provide more reasonable and accurate cost estimates for network upgrades and related facilities, even for affected system studies.²¹¹⁸ Pattern Energy claims that the Commission should not adopt “good faith” to be the standard on which cost estimates are provided in affected system studies, asserting that reasonable cost estimates based on defined metrics should be the standard.

(9) Affected System Network Upgrade Cost Allocation

1086. SEIA supports the NOPR proposal to allocate affected system network upgrade costs using a proportional impact method, arguing that this method should help to reduce individual interconnection customer network upgrade costs by allowing interconnection customers to share the cost and, in doing so, reduce the likelihood of cascading withdrawals.²¹¹⁹

1087. Other commenters stress the importance of certainty and fairness in cost allocation rules. For example, National Grid contends that cost allocation rules should provide certainty to interconnection customers at a reasonable point in the interconnection process, while also having appropriate rules to allocate changes in cost allocations that arise after the date that network upgrade costs are finalized.²¹²⁰ National Grid suggests that this could be achieved by finalizing network upgrade cost allocations at the facilities study phase of the host transmission provider’s interconnection study process, subject to risk sharing cost allocation rules, whereby later changes due to the identification of additional required facilities could be

²¹⁰⁹ Interwest Reply Comments at 18.

²¹¹⁰ WAPA Initial Comments at 13.

²¹¹¹ AEI Initial Comments at 7.

²¹¹² ENGIE Initial Comments at 9. Additionally, ENGIE states that transmission owners typically have responsibilities for affected system studies and, therefore, argues that the Commission should consider language that distributes financial risk and penalties to both transmission owners and transmission providers, including an ability for transmission providers to recover costs from transmission owners. *Id.*

²¹¹³ MISO Initial Comments at 92. WAPA also is generally concerned about the imposition of monetary penalties for failure to meet deadlines and questions whether Federal agencies like WAPA should, or even can be, subject to monetary penalties. *See* WAPA Initial Comments at 10, 14.

²¹¹⁴ Duke Southeast Utilities Initial Comments at 17–18.

²¹¹⁵ Invenery Initial Comments at 25; Shell Initial Comments at 31; PacifiCorp Initial Comments at 36.

²¹¹⁶ Shell Initial Comments at 31.

²¹¹⁷ PacifiCorp Initial Comments at 36.

²¹¹⁸ Pattern Energy Initial Comments at 25.

²¹¹⁹ SEIA Initial Comments at 35.

²¹²⁰ National Grid Initial Comments at 35.

²¹⁰³ AEP Initial Comments at 31; WAPA Initial Comments at 13.

²¹⁰⁴ Bonneville Initial Comments at 19.

²¹⁰⁵ Tri-State Initial Comments at 19.

²¹⁰⁶ MISO Initial Comments at 93.

²¹⁰⁷ Interwest Reply Comments at 17.

²¹⁰⁸ Shell Initial Comments at 30–31.

shared between the interconnection customer and load in a transmission provider's footprint based on the principle of beneficiary pays, through various particular methodologies, including those used for transmission planning upgrades or those based on geography.²¹²¹

1088. Finally, several commenters raise other issues regarding affected system cost allocation. Enel seeks clarity regarding whether shared network upgrades would apply between host system interconnection requests and affected system interconnection requests.²¹²² NV Energy asserts that, since the affected system interconnection request is queued, if the affected system interconnection customer is allocated affected system network upgrade costs based on the proportional impact method and subsequently withdraws, then a restudy could potentially be required for a lower-queued cluster, which would result in a misalignment with the timeline and withdrawal penalties in the transmission provider's cluster study for native interconnection requests.²¹²³ ACE–NY argues that no project should be assigned affected system network upgrade costs after it executes its LGIA and/or after the interconnection customer has accepted its cost allocation in the class year process in NYISO.²¹²⁴

(10) Tender of Affected System Facilities Construction Agreement

1089. Several commenters argue that the proposed time frame for the affected system transmission provider to tender an affected system facilities construction agreement to the affected system interconnection customer—within 30 calendar days of providing the affected system study results to the interconnection customer, as proposed in section 9.9 of the *pro forma* LGIP—should be extended or modified. Duke Southeast Utilities argue that this deadline should be 60 calendar days for various administrative reasons.²¹²⁵ Idaho Power suggests that the affected system transmission provider tender the affected system facilities construction agreement either within 60 calendar days after the interconnection customers

executes a facilities construction agreement with the host transmission provider or within 30 calendar days after providing the affected system study results to the affected system interconnection customer, if the affected system study is performed during the interconnection facilities study.²¹²⁶ Idaho Power explains that information required in the facilities construction agreement is comparable to the information provided by the host transmission provider in the interconnection facilities study report, which, according to Idaho Power, provides a reasonably accurate timing and cost estimate and requires considerable coordination to develop. WAPA highlights other constraints, stating that it contracts out many of its facilities study tasks, which can take significant time, that it must work within the budgetary constraints of its annual appropriation, and that it is impractical to have a construction agreement ready for any interconnection customer within 30 calendar days.²¹²⁷

1090. MISO cautions that providing detailed affected system network upgrade cost estimates and construction timelines within 30 calendar days of providing the affected system study results may not be feasible given that MISO currently only gives high-level cost estimates after its affected system study and construction timelines and detailed cost estimates are provided in the affected system network upgrade facilities study, which is performed by transmission owners.²¹²⁸ MISO further argues that it should not be responsible for actions that are beyond its control, such as the transmission owner-prepared affected system network upgrade facilities study, which it claims would not be feasible to include in each affected system study report if it is attempting to meet the 90-calendar day study timeline, and thus the affected system study and the affected system facilities study should be kept separate. MISO further argues that it is unlikely that transmission owners could provide cost/schedule detail with +/– 20% accuracy within 30 calendar days of determination of affected system network upgrade obligations, with 90 calendar days being a more reasonable time frame.²¹²⁹

(11) Restudy

1091. Bonneville expresses concern with the restudy timeline proposed in *pro forma* LGIP section 9.10, which

would require that a restudy of the affected system study take no longer than 60 calendar days from the date of notice. Bonneville argues that flexibility is warranted due to the complexity of restudies.²¹³⁰

(d) Requests for Alternatives

(1) Clustering of Affected System Studies

1092. Several commenters argue that transmission providers should process affected system studies using a clustering approach.²¹³¹ Several commenters argue that mandating use of serial studies for all variously situated transmission providers would adversely impact the efficiency of the study process and place a significant administrative burden on transmission providers that is disproportionate to the contemplated benefits.²¹³² NextEra urges the Commission to not mandate serial affected system study processing when cluster studies of affected system impacts will be more expeditious and efficient, contending that this would particularly be the case when interconnection requests in large cluster studies impact an adjacent system.²¹³³ North Carolina Commission and Staff claim that serial studies come with substantial costs in the form of network upgrades that may not be sufficient to meet future demand.²¹³⁴

1093. Indicated PJM TOs argue that, for efficiency and consistency, affected system studies should be integrated into the cluster study process.²¹³⁵ Indicated PJM TOs argue that PJM's proposed approach, whereby an affected system study identified by one region would be integrated into the cluster study of another region, would be more efficient

²¹³⁰ Bonneville Initial Comments at 22.

²¹³¹ AECI Initial Comments at 6; Indicated PJM TOs Initial Comments at 47; NextEra Reply Comments at 4; North Carolina Commission and Staff Initial Comments at 25; PPL Initial Comments at 19–20; SPP Initial Comments at 15; WAPA Initial Comments at 11.

²¹³² AECI Initial Comments at 6–7; Indicated PJM TOs Initial Comments at 47; NextEra Reply Comments at 4; North Carolina Commission and Staff Initial Comments at 24–25 (citing Gajda Aff. ¶¶ 21–22, 27); SPP Initial Comments at 15–16.

²¹³³ NextEra Reply Comments at 4–5.

²¹³⁴ North Carolina Commission and Staff Initial Comments at 25 (noting that Duke Energy Progress, LLC constructed \$711,805 in affected system network upgrades in 2017 to accommodate a PJM cluster and that a current, planned upgrade of the same transmission line will eliminate the need for all or some of those affected system network upgrades, which should have lasted at least 40 years and were paid for by Duke Energy Progress, LLC's customers).

²¹³⁵ Indicated PJM TOs Initial Comments at 47–48; Indicated PJM TOs Reply Comments at 41.

²¹²¹ Interwest Reply Comments at 17; National Grid Initial Comments at 35–36.

²¹²² Enel Initial Comments at 67 (citing proposed *pro forma* LGIP sections 9.8 and 3.10).

²¹²³ NV Energy Initial Comments at 11.

²¹²⁴ ACE–NY Initial Comments at 9.

²¹²⁵ Duke Southeast Utilities Initial Comments at 15–16 (citing the possibility of multiple individual agreements, the need to refine previously provided cost estimates and necessary construction schedule, and the potential for more information and updates from the host transmission provider).

²¹²⁶ Idaho Power Initial Comments at 11.

²¹²⁷ WAPA Initial Comments at 13.

²¹²⁸ MISO Initial Comments at 90–91.

²¹²⁹ *Id.* at 91–92.

and less disruptive than the approach identified in the NOPR.²¹³⁶

1094. Some commenters also call for flexibility. AECI argues that the Commission should not limit the flexibility yielded by its existing process of studying each yearly cluster to determine impacts and potential affected system network upgrades, when it is acting as the affected system operator coordinating studies with a neighboring RTO/ISO.²¹³⁷ PPL argues that affected system transmission providers should have the option to enter into a study agreement with either an individual affected system interconnection customer, a group of affected system interconnection customers from the same cluster (that share cost and other responsibilities), or the “direct connect system.”²¹³⁸

(2) Coordination Between Host Transmission Provider and Affected System Transmission Provider

1095. NextEra contends that the NOPR proposal gives too little attention to complex issues, such as potential interconnection queue coordination issues between transmission providers that could arise after implementation of the proposed reforms.²¹³⁹ Several commenters argue that, for efficiency reasons, host transmission providers—and not individual affected system interconnection customers—should be required to coordinate affected system study activities with the affected system transmission providers.²¹⁴⁰ Some commenters recommend that the Commission adopt the coordination approach used by MISO and certain of its neighboring systems, whereby the host transmission provider coordinates all technical data, study deposits, and studies with the affected system transmission provider rather than the proposed direct communication and coordination between interconnection customer and affected system transmission provider.²¹⁴¹ Enel asserts

that this would reduce administrative burden, ensure timely compliance with the tariff, reduce interconnection costs, and increase accountability. Enel also argues that using the host transmission provider’s study agreement to require the interconnection customer to comply with the affected system transmission provider’s study process ensures that the interconnection customer must meet tariff deadlines and cannot delay the affected system transmission provider’s studies. In addition, Shell states that that the Commission should develop guidance for situations in which neighboring transmission providers disagree on the scope and/or timing of an affected system study.²¹⁴²

1096. Several commenters argue that the NOPR proposal should be reevaluated or modified regarding whether and when transmission providers conducting cluster studies would be required to delay those studies to wait for the results of affected system studies. Pattern Energy contends that the Commission should consider an approach in which host transmission providers are not required to wait for affected system studies to be completed, if such delayed action would result in a study milestone being missed.²¹⁴³ Pattern Energy seeks to avoid an unintentional “delay loop,” whereby the affected system is not diligently processing an affected system study because the host transmission provider is waiting for it.²¹⁴⁴

1097. In contrast, PacifiCorp requests that the Commission clarify that, although host transmission providers performing cluster studies are not required to delay those studies by waiting for the results of affected system studies, transmission providers will not be prohibited from delaying the cluster study process to account for affected system study issues if the host transmission provider determines that the cluster study cannot progress without the results of the affected system studies.²¹⁴⁵ MISO raises similar concerns about a transmission provider proceeding with its cluster studies without affected system data, which it asserts is critical information for an

deposits, subject to total study cost true-up, and that host transmission providers should be required to share the interconnection customer’s technical data as needed. Enel reasons that through direct connections, host and affected system transmission providers would be better able to compare constraints and proposed upgrades to coordinate where a single upgrade may address constraints on both transmission systems. *Id.*

²¹⁴² Shell Initial Comments at 30.

²¹⁴³ Pattern Energy Initial Comments at 25.

²¹⁴⁴ *Id.* at 25–26.

²¹⁴⁵ PacifiCorp Initial Comments at 36–37.

interconnection customer.²¹⁴⁶ MISO further asserts that the NOPR proposal will not provide useful information to the interconnection customer sooner and will increase uncertainty, opportunities for late-stage withdrawals, cost shifts, and unscheduled restudies and cascading withdrawals.²¹⁴⁷

1098. Xcel strongly supports improving affected system study interactions, arguing that with common models and processes, in many instances, host transmission provider study results can be used to identify affected system network upgrades, leaving the affected system transmission provider to only identify mitigation solutions.²¹⁴⁸ Noting that many RTO/ISO regions have operating agreements that address interface capacity rights and processes to relieve congestion near and across seams, Xcel argues that host and affected system transmission providers should take those operating agreements into account when considering any interconnection-related requirements from the affected system transmission provider.

1099. APPA–LPPC request that transmission providers be able to forego a formal affected system study when studies by the host transmission provider may be sufficient.²¹⁴⁹ APPA–LPPC ask the Commission to recognize in the *pro forma* LGIP that there may be instances in which separate affected system studies may not be necessary or useful because, in their members’ experience, particularly in the Western Interconnection, feasibility, system impact, and facilities studies undertaken by a directly interconnecting transmission provider may be adequate in scope to encompass impacts on and any necessary upgrades to an affected system.²¹⁵⁰ In such a case, APPA–LPPC state, a unitary study would be less expensive for all parties and avoid a complex administrative task of sequencing and integrating separate system studies.²¹⁵¹

1100. Another alternative proposed by WAPA and Enel is the use of an affected system screening process to identify instances where affected system studies will be needed.²¹⁵² WAPA suggests that this screening process could be a feasibility-level study, completed for an entire cluster, to narrow down which interconnection requests within the cluster potentially have impacts on an

²¹³⁶ Indicated PJM TOs Initial Comments at 47 (noting that the 2022 PJM filing provides that PJM will determine the need for an affected system analysis in phase 1 of a study cycle, and when PJM is identified by another region as needing to complete an affected system analysis, it will place the affected system interconnection request in phase 2 of an ongoing study cycle) (referencing PJM, Filing, Docket No. ER22–2110–000, Sims Aff. ¶ 10 (filed June 14, 2022)).

²¹³⁷ AECI Initial Comments at 6.

²¹³⁸ PPL Initial Comments at 20.

²¹³⁹ NextEra Reply Comments at 4.

²¹⁴⁰ Enel Initial Comments at 60–61; North Carolina Commission and Staff Initial Comments at 25–26; Shell Initial Comments at 30.

²¹⁴¹ Enel Initial Comments at 60–61. Enel further argues that affected system studies should be invoiced to the host transmission provider and paid out of the interconnection customer’s study

²¹⁴⁶ MISO Initial Comments at 93–94.

²¹⁴⁷ *Id.* at 94–95.

²¹⁴⁸ Xcel Initial Comments at 38–39.

²¹⁴⁹ APPA–LPPC Initial Comments at 25.

²¹⁵⁰ *Id.* at 23–25.

²¹⁵¹ *Id.* at 25.

²¹⁵² Enel Initial Comments at 57–58; WAPA Initial Comments at 12–13.

affected system.²¹⁵³ WAPA contends that, without a screening process, transmission providers under the NOPR proposal will require affected system studies by default. Enel suggests that the affected system transmission provider should conduct the screening process during the host transmission provider's cluster study so that the affected system transmission provider is prepared to perform its affected system study during the host transmission provider's initial cluster restudy.

(3) Interregional Transmission Planning

1101. A few commenters urge the Commission to address affected system impacts as a systematic phenomenon and a matter of interregional transmission planning, rather than one-off events to be handled serially.²¹⁵⁴ EDF Renewables argues that better interregional transmission planning should reduce the frequency and severity of affected system impacts, asserting that a system-wide approach is more efficient than a piecemeal one.²¹⁵⁵ NextEra cautions that one issue absent from the affected system proposals in the NOPR is that the costs for alleviating an existing system condition should not rest with a new generating facility interconnecting on an adjacent system that did not create the problem.²¹⁵⁶ NextEra argues that preexisting reliability issues should instead be identified and solved through the transmission planning processes.

(e) Requests for Clarification and Flexibility

1102. Idaho Power requests clarification regarding whether the affected system study process would be required for entities that already use the first-ready, first served cluster study process.²¹⁵⁷

1103. Regarding timing, Invenergy argues that although many of the NOPR's proposed requirements should apply prospectively to new interconnection requests, immediate action from the Commission is needed to resolve affected system issues. Invenergy requests that the Commission clarify that the proposed reforms should apply to all pending interconnection requests and active studies.²¹⁵⁸

1104. Several commenters request clarification regarding how the proposed affected system reforms would

affect RTO/ISO transmission providers and transmission owners in their regions.²¹⁵⁹ Eversource requests that the Commission clarify that the proposed affected system reforms are not applicable to intra-RTO/ISO system upgrades.²¹⁶⁰ Similarly, NYTOs request that the Commission clarify that the proposed affected system reforms would not apply to neighboring transmission owners within a single RTO/ISO, or at least allow such transmission owners to demonstrate on compliance that their existing processes already address such intra-RTO/ISO issues.²¹⁶¹ AEP requests that the Commission address what it terms the four primary types of affected system scenarios: neighboring transmission owner systems within one RTO/ISO; neighboring transmission owner systems in two separate RTOs/ISOs; a transmission owner system in an RTO/ISO neighboring a non-RTO/ISO transmission provider; and neighboring transmission providers both outside of an RTO/ISO.²¹⁶² AEP contends that the Commission appears to conflate all possible affected system scenarios in the NOPR, even though the nature of any affected system study can be impacted by the type of scenario.²¹⁶³

1105. CREA and NewSun seek clarification on whether the proposed affected system reforms apply where QF interconnections under PURPA are subject to state jurisdiction.²¹⁶⁴ CREA and NewSun explain that, under existing precedent, the Commission has allowed states to retain their historic interconnection jurisdiction under PURPA where the QF sells its entire net output to the interconnecting utility.²¹⁶⁵ CREA and NewSun argue, though, that where affected system issues are involved, the state's jurisdiction over the sale of the QF's energy to a utility regulated by that state would not extend to affected system issues with a third-party transmission provider that is not purchasing the QF's net output.²¹⁶⁶ CREA and NewSun urge the Commission to clarify that a QF interconnection customer has the option to opt into use of the Commission's interconnection procedures, in cases

where the interconnection requires studies or network upgrades on an affected system without loss of queue position. CREA and NewSun also argue that the QF should retain the right to elect to proceed through the state process in case the QF concludes that it would be less disruptive to do so.

1106. Several commenters request clarification on whether the proposed affected system reforms apply to non-Commission-jurisdictional transmission providers.²¹⁶⁷ Invenergy and Interwest state that, if an affected system is not a Commission-jurisdictional utility, the Commission would be unable to enforce the process or any penalties proposed in the NOPR, which would leave the interconnection customer in the same bind that currently exists.²¹⁶⁸ Invenergy, Interwest, Xcel, and EEI assert that the Commission should prevent non-jurisdictional entities from interfering with completion of jurisdictional transmission providers' interconnection processes.²¹⁶⁹

1107. Several commenters call for the Commission to explain how jurisdictional transmission providers should respond to potential delays or inaction by non-jurisdictional transmission providers not subject to the affected system study process reforms.²¹⁷⁰

1108. Other commenters argue that the Commission should hold jurisdictional transmission providers harmless for delays induced by or notifications not sent by non-jurisdictional affected system transmission providers.²¹⁷¹ Pacific Northwest Utilities and Puget Sound ask the Commission to clarify that transmission providers have met their obligations in dealing with non-jurisdictional entities if the host transmission provider notifies a non-jurisdictional affected system transmission provider within 10 business days of identifying a potential impact to the transmission system of the non-jurisdictional entity, pursuant to *pro forma* LGIP section 3.6.1, and invites the non-jurisdictional entity to an affected system scoping meeting,

²¹⁵⁹ Eversource Initial Comments at 31–32;

NYTOs Initial Comments at 29.

²¹⁶⁰ Eversource Initial Comments at 31–32.

²¹⁶¹ NYTOs Initial Comments at 29 (citing NYISO, NYISO Tariffs, attach. X, section 30.3.5 (16.0.0)).

²¹⁶² AEP Initial Comments at 32–33; NextEra Reply Comments at 4.

²¹⁶³ AEP Initial Comments at 33.

²¹⁶⁴ CREA and NewSun Initial Comments at 86.

²¹⁶⁵ *Id.* at 87 (citing Order No. 2003, 104 FERC ¶ 61,103 at PP 813–815; *Prior Notice & Filing Requirements Under Part II of the Fed. Power Act*, 64 FERC ¶ 61,139, at 61,991–92, *order on reh'g*, 65 FERC ¶ 61,081 (1993)).

²¹⁶⁶ *Id.* at 87–88.

²¹⁶⁷ Interwest Reply Comments at 18; Invenergy Initial Comments at 42; Pacific Northwest Utilities Initial Comments at 17; Puget Sound Initial Comments at 7; Tri-State Initial Comments at 20.

²¹⁶⁸ Interwest Reply Comments at 18; Invenergy Initial Comments at 42.

²¹⁶⁹ EEI Initial Comments at 19; Interwest Reply Comments at 18; Invenergy Initial Comments at 43; Invenergy Reply Comments at 9; Xcel Initial Comments at 39.

²¹⁷⁰ EEI Initial Comments at 19; NextEra Initial Comments at 34; Pacific Northwest Utilities Initial Comments at 15–16; Xcel Initial Comments at 39.

²¹⁷¹ Pacific Northwest Utilities Initial Comments at 16–17; Puget Sound Initial Comments at 7.

²¹⁵³ WAPA Initial Comments at 12–13.

²¹⁵⁴ EDF Renewables Initial Comments at 11; NextEra Initial Comments at 31; North Carolina Commission and Staff Initial Comments at 3.

²¹⁵⁵ EDF Renewables Initial Comments at 11.

²¹⁵⁶ NextEra Initial Comments at 31.

²¹⁵⁷ Idaho Power Initial Comments at 11.

²¹⁵⁸ Invenergy Initial Comments at 41.

pursuant to *pro forma* LGIP section 3.6.2.²¹⁷²

1109. Many commenters emphasize the importance of flexibility for transmission providers and argue in favor of granting transmission providers compliance flexibility in implementing affected system study process reforms.²¹⁷³ Some commenters contend that the Commission should allow transmission providers to demonstrate that their existing affected system study processes or planned revisions to those processes are adequate to address the Commission's concerns.²¹⁷⁴

iii. Commission Determination

1110. We adopt, with modifications, the NOPR proposal to establish an affected system study process in, and add several related definitions to, the *pro forma* LGIP. As explained in the NOPR, a detailed affected system study process in the *pro forma* LGIP will prevent the use of ad hoc approaches that may give rise to interconnection customers being treated in an unjust, unreasonable, and unduly discriminatory or preferential manner. We agree with commenters that it will also provide interconnection customers greater certainty regarding expectations throughout the interconnection process, including greater cost certainty, which will lead to fewer late-stage withdrawals and fewer delays. The firm affected system study deadlines will also ensure that the affected system study process moves along expediently, providing clarity, cost certainty, and increased transparency throughout the study process, which will minimize opportunities for undue discrimination. For these reasons, we find that the affected system study process reforms adopted herein are just, reasonable, and not unduly discriminatory or preferential and that they remedy the unjust, unreasonable, and unduly discriminatory or preferential rates resulting from the status quo with regard to affected systems. We further find that such reforms will ensure that interconnection customers are able to interconnect to the transmission system in a reliable, efficient, transparent, and timely manner.

²¹⁷² Puget Sound Initial Comments at 8; Pacific Northwest Utilities Initial Comments at 17.

²¹⁷³ AEP Initial Comments at 5; Dominion Initial Comments at 39; National Grid Initial Comments at 37–38; NYISO Initial Comments at 44; PacifiCorp Initial Comments at 36; PJM Reply Comments at 10.

²¹⁷⁴ AEP Initial Comments at 32; Alliant Energy Initial Comments at 7; MISO Initial Comments at 7, 12–13, 83–85, 95; NYISO Initial Comments at 44; Omaha Public Power Initial Comments at 12; OMS Initial Comments at 17; SPP Initial Comments at 16–18.

1111. We disagree with commenters' concerns that a broadly applied, prescriptive affected system study process may not be helpful or may be unworkable.²¹⁷⁵ Instead, we agree with National Grid that the current status quo is not working and will likely worsen absent intervention.²¹⁷⁶ Although some transmission providers may already have working affected system study processes in place, many do not, creating uncertainty and unreasonable delay in the interconnection process. Further, as discussed below with regard to specific reforms, we adopt several revisions to the NOPR proposal in response to comments to ensure the affected system study process deadlines are reasonable and support efficient processing of interconnection requests. We disagree with commenters who argue that the NOPR proposal does not increase efficiency and note that certain modifications will further increase efficiency.²¹⁷⁷ While certain required steps in the affected system study process may increase the need for communication and coordination between affected system transmission providers, affected system interconnection customers, and/or host transmission providers, we find that the potential burden of such discrete efforts are outweighed by the efficiencies of a standardized and more predictable affected system study process. We further find that defining an affected system study process in the *pro forma* LGIP is necessary to ensure that affected system interconnection customers are not being treated in an unjust, unreasonable, and unduly discriminatory or preferential manner, and to ensure that they can evaluate their costs and make decisions regarding the viability of their generation facilities in a timely manner during the interconnection study process.

(a) Definitions and Applicability (Pro Forma LGIP Sections 1 and 9.1)

1112. We adopt the NOPR proposal, with modification, to include several definitions in section 1 of the *pro forma* LGIP related to the affected system reforms, specifically, “affected system facilities construction agreement,” “affected system interconnection customer,” “affected system network upgrades,” “affected system study,” “affected system study agreement,” and

²¹⁷⁵ Dominion Initial Comments at 37; Pacific Northwest Utilities Initial Comments at 15; PJM Initial Comments at 63; SDG&E Reply Comments at 3.

²¹⁷⁶ National Grid Initial Comments at 35.

²¹⁷⁷ Dominion Initial Comments at 36–37; SDG&E Reply Comments at 3; SPP Initial Comments at 17; WAPA Initial Comments at 10.

“affected system study report.” We find these terms to be necessary to enumerate the affected system transmission provider's responsibilities in the affected system study process.²¹⁷⁸ We also add the terms “multiparty affected system study agreement” and “multiparty affected system facilities construction agreement” to section 1 of the *pro forma* LGIP in light of our adoption of such agreements as part of this final rule, as discussed below. We also add the term “affected system queue position” to the *pro forma* LGIP because we find it helpful to distinguish between an interconnection customer's queue position on the host system versus its queue position on an affected system.

1113. We adopt, with modification, the NOPR proposal to add section 9.1 to the *pro forma* LGIP, titled “Applicability.” We find that *pro forma* LGIP section 9.1 clarifies that the transmission provider's obligations in section 9 apply when it is acting as an affected system transmission provider, and we have added clarifying language to resolve ambiguity therein.²¹⁷⁹

1114. In response to PPL's argument that the term “affected system interconnection customer” is confusing and that either another term should be used or “interconnection” should be deleted from the term, we reiterate that the *pro forma* LGIP is written to apply to all transmission providers on a generic basis, meaning transmission providers studying proposed interconnections to their transmission systems (host transmission providers) as well as transmission providers studying the impacts on their own transmission system of proposed interconnections to other transmission providers' transmission systems (affected system transmission providers). In other words, when a transmission provider's transmission system is an affected system, the interconnection customer creating the affected system impact is different from that particular affected system transmission provider's own interconnection customers (*i.e.*, those

²¹⁷⁸ We note that, in the affected system context, there are certain instances in which we intentionally use lowercase versions of defined terms to deviate from their definitions in section 1 of the *pro forma* LGIP. For example, “generating facility” is, in *pro forma* LGIP section 1, part of the definition of “affected system interconnection customer.” In the affected system context, we are referring to a generating facility governed by another transmission provider's LGIP rather than the affected system transmission provider's generating facility as defined in its own LGIP.

²¹⁷⁹ We note that former *pro forma* LGIP section 9, titled “Engineering and Procurement (E&P) Agreement,” is now *pro forma* LGIP section 13.7 to accommodate the new affected system study process section.

that propose to interconnect directly to the transmission provider's transmission system) and must be distinguished accordingly in the *pro forma* LGIP. The term "affected system interconnection customer" achieves this goal by distinguishing between the interconnection customer's dual roles in the host transmission provider's study process and the affected system transmission provider's study process.

1115. Further, we disagree with PPL's assertion that some transmission providers combine interconnection and transmission processes, making "interconnection" an unnecessary distinction.²¹⁸⁰ This proceeding involves generic generator interconnection procedures, pursuant to which transmission service request studies are performed independently from interconnection studies.²¹⁸¹ However, we modify the definition of "affected system interconnection customer" and use other defined terms in the *pro forma* LGIP for additional clarity and consistency.

1116. As explained below, we do not adopt the NOPR proposal to require an affected system scoping meeting and therefore also do not adopt the proposed term "affected system scoping meeting" in section 1 of the *pro forma* LGIP.

1117. We clarify that the terms "affected system" and "affected system operator" retain their existing definitions in *pro forma* LGIP section 1.²¹⁸²

1118. In response to NRECA's request for clarification, we reiterate that the final rule applies to transmission providers and, in the affected system context, to transmission providers that are acting as affected systems per the *pro forma* LGIP definition. Therefore, we decline to expand the scope of several affected systems-related definitions as requested by NRECA because we find NRECA's request to be outside the scope of this proceeding.²¹⁸³ In response to National Grid's request for clarification regarding whether an affected system solely includes transmission owners in each region or also includes neighboring RTOs/ISOs or

transmission providers in neighboring regions, we reiterate that an affected system is defined in section 1 of the *pro forma* LGIP as an electric system other than the transmission provider's transmission system that may be affected by the proposed interconnection.

(b) Identification and Notification of Affected Systems (Pro Forma LGIP Sections 3.6.1, 9.2, and 11.2.1)

1119. We adopt, with modification, proposed section 3.6.1 of the *pro forma* LGIP, which sets forth the trigger events for identification of an affected system impact to begin the affected system study process. We modify that section to retain as trigger events the completion of the cluster study and cluster restudy but eliminate the earlier trigger events—the close of the cluster request window and the close of the customer engagement window. While we would expect identification of potential affected system impacts to occur upon the completion of the cluster study, we recognize that an affected system impact may not be identified until a restudy occurs, and we adopt language in *pro forma* LGIP section 3.6.1 to account for such a scenario. Thus, as adopted in *pro forma* LGIP section 3.6.1, we require the transmission provider to notify the affected system operator at the first instance of an identified potential affected system impact, which may occur at the completion of the (1) cluster study or (2) cluster restudy. We also move the affected system transmission provider's obligations to respond to the initial notification under proposed *pro forma* LGIP section 3.6.1 to a new *pro forma* LGIP section 9.2. We find this bifurcation of duties with respect to initial affected system notification for the transmission provider, when acting as host transmission provider and affected system transmission provider, appropriately sets forth the responsibilities of the transmission provider in the sections describing the conditions for each action.

1120. We also adopt the provision proposed in *pro forma* LGIP section 3.6.1 that provides for the transmission provider to notify an affected system operator of a potential affected system impact caused by the interconnection request within 10 business days of the first trigger event giving rise to the identification of the affected system impact. We modify the provision in proposed *pro forma* LGIP section 3.6.1 for the affected system transmission provider to respond to such notification in writing within 15 business days indicating whether it intends to conduct an affected system study to 20 business

days, which we move to *pro forma* LGIP section 9.2, as noted above. We further move to *pro forma* LGIP section 9.2 the requirement that, within 15 business days of the affected system transmission provider's affirmative response of its intent to conduct an affected system study, the affected system transmission provider must share a non-binding good faith estimate of the cost and schedule to complete the affected system study.

1121. As adopted, the identification and notification process is tied to the completion of the cluster study or the cluster restudy. At that point, the host transmission provider will have a stronger basis for deciding whether an interconnection request will potentially impact an affected system. Further, the initiation of the affected system study process after the initial study costs are received should lead to affected system study results that provide greater cost certainty, as the largest number of interconnection request withdrawals will most likely occur after receipt of the initial cluster study results, a point noted by commenters.²¹⁸⁴ After receipt of the initial cluster study results, those interconnection requests remaining in the host system's interconnection queue are more likely to complete the interconnection study process. We agree with CAISO that this smaller pool of affected system interconnection customers will enable faster affected system studies due to a decreased volume of affected system interconnection customers and more realistic study assumptions.²¹⁸⁵

Accordingly, we find that beginning the affected system study process after the adopted trigger events provides greater certainty to interconnection customers regarding affected system network upgrade costs while ensuring a faster affected system study process. This is because the affected system transmission provider will be using more realistic study assumptions and studying a more realistic number of affected system interconnection customers, reducing the need for restudy.

1122. We find that notification to an affected system operator of a potential impact prior to receipt of cluster study results would be administratively burdensome and inefficient and could potentially slow the interconnection process because such notification would include numerous interconnection

²¹⁸⁰ PPL Initial Comments at 19–20.

²¹⁸¹ See *Tenn. Power Co.*, 90 FERC ¶ at 61,761 (finding that interconnection is an element of transmission service but that the interconnection component of transmission service may be requested separately from the delivery component (*i.e.*, interconnection is distinct from transmission service)).

²¹⁸² An affected system is an electric system other than the transmission provider's transmission system that may be affected by the proposed interconnection. An affected system operator is the entity that operates an affected system. *Pro forma* LGIP section 1.

²¹⁸³ See NRECA Initial Comments at 9, 36–39.

²¹⁸⁴ CAISO Initial Comments at 28; Idaho Power Initial Comments at 11; NextEra Initial Comments at 32.

²¹⁸⁵ CAISO Initial Comments at 29.

requests that ultimately do not reach commercial operation.²¹⁸⁶

1123. In eliminating the first two notification triggers, we recognize that the affected system study process will start later and, as a result, the interconnection customer could be required to execute, or request to be filed unexecuted, its LGIA before it has received its affected system study results and cost estimates for any affected system network upgrades. To avoid this result and in response to commenters' requests that transmission providers should be given the option to wait for affected system study results when conducting cluster studies,²¹⁸⁷ we modify the NOPR proposal and add a new section 11.2.1 to the *pro forma* LGIP. Under this section, if the interconnection customer does not receive its affected system study results pursuant to *pro forma* LGIP section 9.7, discussed below, before the deadline for LGIA execution, or the deadline to request that the LGIA be filed unexecuted, in its host system, the host transmission provider must, at the interconnection customer's request, delay the deadline for the interconnection customer to finalize its LGIA.²¹⁸⁸ The interconnection customer will have 30 calendar days after receipt of the affected system study report to execute the LGIA, or request that the LGIA be filed unexecuted.

1124. As noted above, we find that by adopting *pro forma* LGIP section 11.2.1, we ensure that interconnection customers have adequate time to evaluate their costs prior to committing to the cost estimates contained in an LGIA. Additionally, if the interconnection customer prefers to proceed to the execution of its LGIA, or request that the LGIA be filed unexecuted, before it has received its affected system study results, it may notify the host transmission provider of its intent to proceed with the execution of the LGIA, or request that the LGIA be filed unexecuted. If the host transmission provider determines that further delay to the LGIA execution date would cause a material impact on the cost or timing of an equal- or lower-queued interconnection customer, the transmission provider must notify the interconnection customer whose

deadline to execute the LGIA, or request that the LGIA be filed unexecuted, is delayed of such impact and establish that the new deadline is 30 calendar days after such notice is provided.

1125. In response to ACE-NY's argument that no interconnection customer should be assigned affected system network upgrade costs after it executes its LGIA and/or after the interconnection customer has accepted its cost allocation in the class year process in NYISO,²¹⁸⁹ we decline to rule on specific transmission provider processes in this final rule. We note, however, that, under new *pro forma* LGIP section 11.2.1, interconnection customers may negotiate LGIA execution to await an affected system study report for greater certainty at the time of LGIA execution, or requesting the LGIA to be filed unexecuted, if that further delay to the LGIA execution date would not cause a material impact on the cost or timing of an equal- or lower-queued interconnection customer.

1126. We decline to require the affected system transmission provider to provide affected system study results before the facilities study phase, as asserted by Enel and Shell,²¹⁹⁰ because such a requirement would necessitate that the affected system transmission provider would have to begin such studies before any interconnection customers withdraw from the interconnection queue and would therefore involve the study of numerous interconnection requests that do not eventually proceed to commercial operation, resulting in additional restudies and delays.

1127. In response to Tri-State's argument that proposed *pro forma* LGIP section 3.6.1 needs to clarify to whom notice is to be directed,²¹⁹¹ we note the language in *pro forma* LGIP section 3.6.1 beginning with "Transmission Provider must notify Affected System Operator of a potential Affected System impact." If Tri-State is asking to whom the affected system transmission provider should respond in writing regarding whether it intends to conduct an affected system study, it should respond to the transmission provider who notified the affected system operator of a potential affected system impact.

1128. We adopt Pacific Northwest Utilities' requested clarification and agree with Puget Sound that, provided that transmission providers properly notify a non-public utility affected

system operator within 10 business days under proposed *pro forma* LGIP section 3.6.1, such steps are sufficient to demonstrate that the transmission provider has met its obligations under that section.²¹⁹²

1129. We agree with Interwest and Invenergy that the interconnection customer should be permitted to delay posting security and funding for network upgrades under its LGIA until affected system study results are received in certain situations.²¹⁹³ Specifically, an interconnection customer is not required to post security for and fund network upgrades pursuant to an LGIA if the deadline for LGIA execution, or to request that the LGIA be filed unexecuted, is delayed under *pro forma* LGIP section 11.2.1. We agree with Interwest that this would reduce an affected system interconnection customer's risk of incurring affected system network upgrade costs after LGIA execution. However, if the interconnection customer chooses to proceed to execute an LGIA, or request that the LGIA be filed unexecuted, it will be responsible for posting security and funding network upgrades as per the schedule in its LGIA, regardless of whether it has received affected system study results.

1130. We disagree with commenters that a transmission provider's obligation to notify a potential affected system operator of an impact in 10 business days is unrealistic or problematic.²¹⁹⁴ As we are eliminating two trigger events, the host transmission provider now has the obligation to notify the affected system operator of a potential impact to the affected system following the completion of the cluster study or restudy, which we find provides a clear timeline contrary to PacifiCorp's claims. Furthermore, we do not find any convincing evidence that a host transmission provider will be unable to provide a notification to an affected system operator of potential impacts within 10 business days and note that this timeline is supported by commenters.²¹⁹⁵

1131. However, regarding comments that the affected system operator's obligation to respond in 15 business days is insufficient,²¹⁹⁶ particularly

²¹⁸⁶ *Id.* at 28–29; Enel Initial Comments at 59; Idaho Power Initial Comments at 11; NextEra Initial Comments at 32.

²¹⁸⁷ PacifiCorp Initial Comments at 36–37; Pattern Energy Initial Comments at 25; Shell Initial Comments at 30–31.

²¹⁸⁸ Any interconnection customer that is not awaiting the results of an affected system study must proceed under the timelines set forth in *pro forma* LGIP section 11.1.

²¹⁸⁹ ACE-NY Initial Comments at 9.

²¹⁹⁰ See Enel Initial Comments at 58; Shell Initial Comments at 30–31.

²¹⁹¹ Tri-State Initial Comments at 28.

²¹⁹² Pacific Northwest Utilities Initial Comments at 17; Puget Sound Initial Comments at 8.

²¹⁹³ Interwest Reply Comments at 18; Invenergy Initial Comments at 43.

²¹⁹⁴ CAISO Initial Comments at 27; Duke Southeast Utilities Initial Comments at 12; PacifiCorp Initial Comments at 36; PG&E Reply Comments at 5.

²¹⁹⁵ See AEP Initial Comments at 31; Pine Gate Initial Comments at 42.

²¹⁹⁶ Bonneville Initial Comments at 18; CAISO Initial Comments at 27; Duke Southeast Utilities

when numerous potential affected system impacts are identified in a single cluster study, as stated above, we extend the affected system operator's response obligation time period from 15 business days to 20 business days to provide the affected system operator with additional time to consider whether to study these potential affected system impacts on its transmission system, consistent with Duke Southeast Utilities' suggestion.²¹⁹⁷ We find these timelines necessary to ensure timely processing of the affected system study process and to provide certainty to the interconnection customer regarding the processing of the affected system study.

(c) Affected System Scoping Meeting (Pro Forma LGIP Section 3.6.2) and Affected System Study Procedures (Pro Forma LGIP Section 9.7)

1132. We decline to adopt the proposed requirement in *pro forma* LGIP section 3.6.2 that affected system transmission providers must hold an affected system scoping meeting within seven business days after providing written notification that it intends to conduct an affected system study. We agree with commenters' concerns that the difficulties associated with holding an affected system scoping meeting within the proposed time frame outweigh its potential benefits.²¹⁹⁸ We also agree with WAPA that a meeting after the affected system study is completed would be more beneficial than an affected system scoping meeting.

1133. We adopt, with modifications, the proposed affected system study procedures set forth in *pro forma* LGIP section 9.6, now section 9.7. In particular, we modify the NOPR proposal to explicitly require clustering of affected system interconnection customers for study purposes where multiple interconnection requests that are part of a single cluster in the host system's cluster study process cause the need for an affected system study. We find that clustered affected system studies will, consistent with the requirement to use a first-ready, first-served cluster study process, improve administrative efficiency in the affected system study process and reduce administrative burden on the affected system transmission provider, thereby promoting overall efficiency in the

interconnection process. We agree with commenters that serial affected system studies would place an additional burden on transmission providers to study affected system impacts and would further slow the interconnection process.²¹⁹⁹ We, therefore, believe that mandating clustering of affected system studies will not place an additional unnecessary burden on transmission providers, no matter their size; rather, it should reduce such burdens as compared to multiple serial studies and restudies.

1134. We further modify proposed *pro forma* LGIP section 9.7, to require the affected system transmission provider to complete the affected system study and provide the affected system interconnection customer with affected system study results within 150 calendar days after receipt of the affected system study agreement, rather than the proposed 90 calendar days. We agree with commenters that explain that 90 calendar days may not be adequate time to complete an affected system study,²²⁰⁰ aligning with our discussion of the potential for affected system transmission providers to conduct a facilities study under proposed *pro forma* LGIP section 9.6 below. In recognition of that, we extend the proposed maximum time frame to complete an affected system study from the NOPR's proposed 90 calendar days to 150 calendar days. This extension addresses Bonneville's concern that the proposed schedule to complete an affected system study may have included a due date in excess of the 90-calendar day timeline.

1135. We also modify *pro forma* LGIP section 9.7, which, as proposed, required the affected system transmission provider to notify the affected system interconnection customer that an affected system study will be late, to add a requirement for the affected system transmission provider to notify the host transmission provider that the affected system transmission provider will be unable to timely complete the affected system study.

1136. We adopt Tri-State's request to add the phrase "and deposit" to *pro forma* LGIP section 9.7, such that the affected system transmission provider must provide the affected system study report to the affected system interconnection customer within 150 calendar days after the receipt of the

affected system study agreement and deposit. We find this addition is needed to clarify the affected system interconnection customer's obligation to provide an affected system study deposit, especially if an affected system interconnection customer loses its affected system queue position, discussed below, for failure to provide the required deposit under *pro forma* LGIP section 9.5. We also add to *pro forma* LGIP section 9.7 a requirement for the affected system transmission provider to provide the affected system study report to the host transmission provider at the same time it provides the report to the affected system interconnection customer. We find that this will enhance transparency in the interconnection study process.

1137. In response to MISO's request for clarification that the affected system study clock commences only after all necessary data has been provided, we clarify that, because an affected system interconnection customer has already submitted all required data to the host transmission provider, and the host transmission provider has verified that the data submitted is adequate and has conducted at least one interconnection study, it is highly unlikely that there will be any instances of requiring clarification or further data from interconnection customers. Thus, under the modified affected system study procedures, the data regarding interconnection requests given to the affected system transmission provider should be complete, requiring no delay or requests for further data. Nevertheless, we note that the affected system interconnection customer is required, under *pro forma* LGIP section 9.5, to provide all required technical data when it delivers the affected system study agreement. As discussed below, the clock for the affected system transmission provider to complete its affected system study begins after the receipt of the executed affected system study agreement and study deposit, which would include the receipt of all required technical data from the affected system interconnection customer.

(d) Affected System Queue Position (Pro Forma LGIP Section 9.3)

1138. We adopt, with modification, the NOPR proposal to add section 9.2, now section 9.3, titled "Affected System Queue Position," to the *pro forma* LGIP. Specifically, we adopt the first-ready, first-served concept, as proposed in the NOPR,²²⁰¹ along with the affected

Initial Comments at 12; PG&E Reply Comments at 5; WAPA Initial Comments at 11–12.

²¹⁹⁷ See Duke Southeast Utilities Initial Comments at 12.

²¹⁹⁸ Bonneville Initial Comments at 18–19; CAISO Initial Comments at 28; Dominion Initial Comments at 38; MISO Initial Comments at 86; WAPA Initial Comments at 12.

²¹⁹⁹ AECI Initial Comments at 6–7; Indicated PJM TOs Initial Comments at 47; NextEra Reply Comments at 4; North Carolina Commission and Staff Initial Comments at 24–25 (citing Gajda Aff. ¶¶ 21–22, 27); SPP Initial Comments at 15–16.

²²⁰⁰ AEP Initial Comments at 31; Enel Initial Comments at 65; WAPA Initial Comments at 13.

²²⁰¹ We note that several commenters support the proposed first-ready, first-served concept under

system relative queue priority proposal. Consequently, the interconnection requests of affected system interconnection customers that have executed an affected system study agreement will be higher-queued than the interconnection requests of those host system interconnection customers that have not yet received their cluster study results, and lower-queued than those interconnection customers that have already received their cluster study results. We also add clarifying language to *pro forma* LGIP section 9.3 to explain that, although queue position is determined based on the date of affected system study agreement execution, all affected system interconnection requests studied within the same affected system cluster will be equally queued.

1139. The affected system interconnection customer's affected system queue position is for identification of affected system network upgrades along with the affected system transmission provider's own interconnection customers. Specifically, the affected system queue position determines the order in which the affected system transmission provider will study the affected system interconnection customers and its own interconnection customers and thus impacts which network upgrades may be identified as necessary and assigned to interconnection customers, whether its own or affected system interconnection customers.

1140. As an example, if a transmission provider has two cluster studies of its own interconnection customers—cluster study 1 for which the transmission provider is conducting the facilities studies and cluster study 2 for which the transmission provider is conducting the cluster study—cluster study 1 would be higher-queued than cluster study 2. If that transmission provider receives notice from a neighboring transmission provider of interconnection requests that may impact its transmission system (*i.e.*, affected system interconnection customers), the transmission provider may decide to study those affected system interconnection customers to determine if any network upgrades are required to mitigate constraints caused by those affected system interconnection customers. Once those affected system interconnection customers have executed their affected system study agreements, the transmission provider must assign them

an affected system queue position, which will be higher than any cluster study of its own interconnection customers that have not received their cluster study results. In this example, the cluster study 1 interconnection customers would be higher-queued than the cluster of affected system interconnection customers because the cluster study 1 interconnection customers would have already received their cluster study results and decided to proceed with their interconnection requests, and cluster study 2 interconnection customers would be lower-queued than the cluster of affected system interconnection customers because they would not have received their cluster study results and thus are more likely to withdraw.

1141. We find that establishing the affected system queue position based on the execution of the affected system study agreement is appropriate because, at that point, the affected system interconnection customer has demonstrated its intent to proceed with its interconnection request by executing the agreement and providing a study deposit to the affected system transmission provider as well as receiving its cluster study report on its host system and deciding to proceed with its interconnection request. Furthermore, allowing these affected system interconnection customers to be higher-queued than any of its own interconnection customers that have not received their cluster study results is appropriate because those interconnection customers have not yet received any network upgrade estimates. Thus, its own interconnection customers have not yet demonstrated their intention to proceed to the facilities study.

1142. We agree with commenters that establishing queue priority in an affected system transmission provider's interconnection queue based on when an interconnection request is received by the host transmission provider is problematic.²²⁰² In part for this reason, we are adopting the host system's cluster study results and execution of the affected system study agreement as reference points for queue priority²²⁰³ because these points occur after the interconnection customer has made demonstrations to indicate intent to progress through the interconnection process.

1143. We disagree with NextEra that the NOPR proposal's affected system queue priority construct, which we

adopt herein, will lead to a race among interconnection customers to be first or last to sign an affected system study agreement. NextEra's concern may occur under a serial affected system study process, but, as explained above, we require clustering of affected system studies. Studying affected system interconnection requests in clusters mitigates the risk of a race to execute affected system study agreements, as affected system interconnection customers in the same affected system cluster will be equally queued regardless of when they execute their affected system study agreement, if it is within the appropriate window for affected system study agreement execution. We find this to be a just and reasonable queue priority construct for affected system studies.

1144. We decline to adopt EDF Renewables' suggestion that the affected system transmission provider be required to establish queue priority between the host and affected systems based on the interconnection customer having achieved a certain stage in the host system's study process, rather than the date the interconnection customer submits an interconnection request. We clarify that we neither propose to, nor do we adopt a proposal to, base relative affected system queue priority on the date an interconnection customer submits its interconnection request.²²⁰⁴

1145. We clarify, in response to Idaho Power's request, that the affected system study process adopted in this final rule is required for all transmission providers, regardless of preexisting use of the first-ready, first-served cluster study process.

1146. We clarify, in response to APPA-LPPC, that establishing the affected system queue priority is for identifying the affected system network upgrades needed to mitigate constraints on the affected system.²²⁰⁵ This process will proceed in parallel with the host transmission provider's study process and should not result in delays to the interconnection customer. As discussed above, we allow interconnection customers to delay execution of their LGIAs, or request that the LGIA be filed unexecuted, if they have not received their affected system study results; however, based on the reforms we adopt

proposed *pro forma* LGIP section 9.2. See Alliant Energy Initial Comments at 7; MISO Initial Comments at 11–12; NextEra Initial Comments at 33; OMS Initial Comments at 17.

²²⁰² EDF Renewables Initial Comments at 11; MISO Initial Comments at 11, 87.

²²⁰³ See NOPR, 179 FERC ¶ 61,194 at P 189.

²²⁰⁴ See NOPR, 179 FERC ¶ 61,194 at P 189 (providing that the affected system transmission provider would assign the affected system interconnection customer a queue position in its queue according to when the affected system interconnection customer executes an affected system study agreement rather than when the affected system interconnection customer entered its host transmission provider's queue).

²²⁰⁵ APPA-LPPC Initial Comments at 26.

in this final rule, that should be the exception and not the rule. Thus, we find that the affected system queue position is merely intended to ensure that affected system interconnection customers are assigned the appropriate network upgrade costs according to the Commission's interconnection pricing policy, and not as an indicator that interconnection customers become part of two separate interconnection queues.

1147. With respect to requests for clarification regarding proposed *pro forma* LGIP section 9.2 and how the first-ready, first-served queue priority approach interacts with cluster studies,²²⁰⁶ we clarify that all affected system interconnection customers in the same cluster on the affected system will have equal queue priority in the affected system transmission provider's interconnection queue, which is consistent with how the first-ready, first-served approach interacts with cluster studies for interconnection customers on the transmission provider's transmission system when it is acting as a host system. This means that the affected system interconnection customers within a cluster have equal queue priority and that queue priority will be relative to the affected system transmission provider's own interconnection customers. The affected system transmission provider's own interconnection customers that already received their cluster study results when an affected system interconnection customer or cluster of affected system interconnection customers execute an affected system study agreement will be higher-queued than that affected system interconnection customer. Any of the affected system transmission provider's own interconnection customers that receive their cluster study results after the affected system interconnection customer or cluster of affected system interconnection customers execute their affected system study agreement will be lower-queued than that affected system interconnection customer or cluster of affected system interconnection customers. We clarify in response to APPA-LPPC that a transmission provider will assign the costs of network upgrades required on its transmission system to interconnection customers in its host cluster study process and affected system interconnection customers, also studied in their own cluster, based on their relative queue priority and in accordance with the proportional impact method as described in *pro forma* LGIP section

4.2.3, and as discussed further in the next section.²²⁰⁷

1148. With respect to Bonneville's request for clarification, we clarify that an affected system interconnection customer will lose its affected system queue position if the affected system interconnection customer fails to: (1) execute the affected system study agreement or request it be filed unexecuted; (2) execute the affected system facilities construction agreement or request it be filed unexecuted; (3) provide the affected system study deposit; or (4) pay undisputed affected system study true-up costs in a timely manner.

(e) Affected System Cost Allocation (Pro Forma LGIP Section 9.9)

1149. We also adopt the NOPR proposal in *pro forma* LGIP section 9.8, now *pro forma* LGIP section 9.9, titled "Affected System Cost Allocation," to allocate affected system network upgrade costs using a proportional impact method, in accordance with *pro forma* LGIP section 4.2.1(1)(b).

1150. We agree with SEIA that using a proportional impact method will reduce individual affected system network upgrade costs and reduce the likelihood of cascading withdrawals, consistent with our discussion above on the use of the proportional impact method for the allocation of network upgrade costs in a cluster on the host system.

1151. We disagree with commenters that argue that the Commission should provide for penalty-free withdrawal from the host system's interconnection queue if affected system study results increase an interconnection customer's costs by more than 25% or some other threshold compared to costs allocated by the host transmission provider.²²⁰⁸ First, we find that the final rule's requirement that affected system transmission providers use ERIIS modeling standard to conduct affected system studies should reduce the number and total cost of affected system network upgrades assigned to affected system interconnection customers, which will reduce instances of "sticker shock" from affected system network upgrades.²²⁰⁹ Second, as discussed above, any interconnection customers in a cluster that are not waiting for affected system study results must proceed with the finalization of their LGIAs, pursuant to *pro forma* LGIP section 11.1. Thus, we find that it would create sufficient

uncertainty to allow an interconnection customer to withdraw penalty-free when it receives its affected system study results if there is a 25% increase in costs, which may occur after other interconnection customers in the same cluster have finalized their LGIAs. We note that interconnection customers inherently assume some risk.

Accordingly, we decline to explicitly extend penalty-free withdrawal to include increases in affected system network upgrade costs beyond a certain threshold.

1152. In response to NV Energy's assertion that use of the proportional impact method may lead to restudies when a higher-queued affected system interconnection customer withdraws its interconnection request, we note that potential outcomes of withdrawal are restudy and the reallocation of costs, regardless of the cost allocation methodology used.²²¹⁰ We also note that, as described above, transmission providers may not need to perform a study if, in their engineering judgment, the network upgrades assigned to the withdrawing interconnection customer either are not needed or are easily reassigned to a remaining interconnection customer. Thus, restudies under the new interconnection process due to interconnection request withdrawals should be relatively less frequent than under existing processes.

(f) Information Sharing Among Transmission Providers (Pro Forma LGIP Section 3.6.3)

1153. We decline to adopt proposed section 3.6.3 of the *pro forma* LGIP, which would have required a transmission provider to provide data on a monthly basis, or more frequently as needed, to any affected system operators regarding the amount and location of proposed generation in the transmission provider's interconnection queue, as well as updated information about the transmission provider's transmission system.²²¹¹ We agree with commenters' arguments that the information sharing requirement is duplicative of what is available on OASIS and recognize that such a requirement may be overly burdensome.²²¹² The OASIS postings provide transparency regarding the host transmission provider's interconnection queue information. Further, transmission providers are required to notify neighboring transmission

²²⁰⁷ APPA-LPPC Initial Comments at 26.

²²⁰⁸ Invenergy Initial Comments at 43–44; Shell Initial Comments at 31.

²²⁰⁹ See *infra* section III.B.2.d.iii.

²²¹⁰ NV Energy Initial Comments at 11–12.

²²¹¹ Accordingly, we do not address comments on this section.

²²¹² Bonneville Initial Comments at 19; Dominion Initial Comments at 38.

²²⁰⁶ Id.; Idaho Power Initial Comments at 11; NextEra Initial Comments at 33.

providers of potential impacts on their systems per section 3.6.1 of the *pro forma* LGIP, as described above.

(g) Affected System Study Agreement (Pro Forma LGIP Section 9.4) and Execution Thereof (Pro Forma LGIP Section 9.5)

1154. With regard to tendering of the affected system study agreement to the affected system interconnection customer, we modify proposed *pro forma* LGIP section 9.3, now *pro forma* LGIP section 9.4, to require that the transmission provider provide the affected system study agreement within 10 business days of sharing the schedule for the study with the affected system interconnection customer(s), per *pro forma* LGIP section 9.2, rather than within five business days, as proposed. We agree with commenters that five business days is not enough time to prepare what could be numerous affected system study agreements in the event a number of interconnection customers in a large cluster on a neighboring transmission system impact the affected system transmission provider's transmission system.

1155. Consistent with our decision—discussed above—to not adopt the proposal to require affected system transmission providers to convene a scoping meeting with affected system interconnection customers, we remove references to such a meeting in *pro forma* LGIP section 9.4. Accordingly, we modify the NOPR proposal requiring the affected system operator to provide a non-binding good faith estimate of the cost and time frame for completing an affected system study from 15 business days after the affected system scoping meeting to 20 business days from the date that the affected system operator responded in writing to the host transmission provider that it intends to conduct an affected system study, pursuant to section 3.6.1 of the *pro forma* LGIP, and we also move this requirement to section 9.2 of the *pro forma* LGIP. The time taken to tender an affected system study agreement will also be measured from that date. We believe these changes will align the study timeline to the lack of an affected system scoping meeting.

1156. Accordingly, we modify proposed *pro forma* LGIP section 9.4 so that, after the affected system transmission provider responds with its intent to conduct an affected system study, the affected system transmission provider has 10 business days to tender an affected system study agreement from the date of the affected system transmission provider sharing the schedule for the study. Again, these

changes align the affected system study process timeline with the modification to remove the affected system scoping meeting.

1157. We further modify proposed *pro forma* LGIP section 9.4 to include a true-up of the affected system study deposit and actual cost of the affected system study. The difference between these amounts must be detailed in an invoice and paid by or refunded to the affected system interconnection customer within 30 calendar days of the receipt of such invoice. An affected system interconnection customer's failure to pay the difference between these amounts will result in loss of that affected system interconnection customer's affected system queue position. We find these modifications necessary to effectuate actual payment of affected system study costs and to outline the consequences for failure to do so.

1158. With regard to execution of the affected system study agreement, we adopt, with modification, the NOPR proposal to add section 9.5 to the *pro forma* LGIP regarding the timing of the execution of the affected system study agreement. As adopted, *pro forma* LGIP section 9.5 states that the affected system interconnection customer has 10 business days from the date of receipt of the affected system study agreement to execute and deliver it to the affected system transmission provider. *Pro forma* LGIP section 9.5 also provides that, if the affected system interconnection customer does not provide all required technical data when it delivers the affected system study agreement, the affected system transmission provider shall notify the affected system interconnection customer of the deficiency within five business days of the receipt of the affected system study agreement, and the affected system interconnection customer has 10 business days to cure the deficiency after receipt of such notice, provided that the deficiency does not include failure to deliver the executed affected system study agreement or deposit.

1159. In the same vein, we modify proposed section 9.4 of the *pro forma* LGIP to require the affected system transmission provider to notify the host transmission provider of the affected system interconnection customer's breach of its obligations under this section, should such breach occur. We find that, absent such notification, the host transmission provider may be unaware of such a breach.

(h) Scope of Affected System Study (Pro Forma LGIP Section 9.6)

1160. We adopt, with modification, the NOPR proposal in *pro forma* LGIP section 9.5, now *pro forma* LGIP section 9.6, regarding the scope of the affected system study. The affected system study will consider the base case as well as all higher-queued generating facilities on the affected system transmission provider's transmission system and will consist of a power flow, stability, and short circuit analysis. The affected system study will provide a list of affected system network upgrades that are required because of the affected system interconnection customer's proposed interconnection, a non-binding good faith estimate of cost responsibility, and a non-binding good faith estimated time to construct. We find that these requirements will ensure that the affected system study will identify affected system network upgrades that are necessary to mitigate the impacts of the affected system interconnection customer's proposed generating facility on the affected system while providing the affected system interconnection customer with estimated costs and a timeline to construct necessary network upgrades.

1161. In response to APPA–LPPC, Duke Southeast Utilities, Enel, and Pattern Energy, we modify the NOPR proposal and clarify that *pro forma* LGIP section 9.6 does not preclude affected system transmission providers from conducting facilities studies or other relevant studies when conducting affected system studies. The affected system study may consist of a system impact study, a facilities study, or a combination of a system impact and facilities study.

1162. To address commenters' criticism that the NOPR proposal was ambiguous with respect to whether a facilities study is specifically contemplated as part of the affected system study process,²²¹³ we clarify that it is. We agree with commenters that an affected system facilities study could provide more refined cost estimates and construction timelines to better apprise the affected system interconnection customer of expected affected system network upgrade costs and timing, thereby improving interconnection process efficiency.²²¹⁴ We note that the study requirements for the affected system study under *pro forma* LGIP section 9.6 that we proposed in the

²²¹³ APPA–LPPC Initial Comments at 26; Duke Southeast Utilities Initial Comments at 15.

²²¹⁴ Enel Initial Comments at 65; LADWP Initial Comments at 4; NV Energy Initial Comments at 11; Pattern Energy Initial Comments at 24–25.

NOPR, and adopt in this final rule, require the affected system transmission provider to produce the same information that a facilities study would produce; specifically, the affected system transmission provider must provide a list of facilities that are required as a result of an affected system interconnection customer's proposed interconnection, a non-binding good faith estimate of cost responsibility, and a non-binding good faith estimated time to construct. Nevertheless, for further clarity, we modify proposed *pro forma* LGIP section 9.6 to indicate that the affected system study may consist of a system impact study, a facilities study, or some combination thereof. We note that we have modified the proposal to provide more time to the transmission provider to conduct such studies that they deem necessary, as discussed above.

1163. In response to Duke Southeast Utilities' request for clarification that affected system transmission providers conduct a series of two affected system studies, we reiterate that nothing precludes an affected system transmission provider from conducting an affected system facilities study following an affected system impact study, just as nothing precludes affected system transmission providers from conducting a combined version of such studies, and we believe we have provided adequate time for transmission providers to do so.

1164. We find out of scope Shell's request for inclusion of further information on local transmission planning from neighboring public utility transmission providers in the affected system study results.

(i) Meeting With Transmission Provider (Pro Forma LGIP Section 9.8) and Affected System Facilities Construction Agreement (Pro Forma LGIP Section 9.10)

1165. We adopt proposed section 9.9, now section 9.10, of the *pro forma* LGIP, with modifications. Specifically, we adopt the requirement for an affected system transmission provider to tender to the affected system interconnection customer an affected system facilities construction agreement within 30 calendar days of providing the affected system study report. We modify this section to require the affected system transmission provider to provide 10 business days—rather than five business days, as proposed—after receipt of the affected system facilities construction agreement for the affected system interconnection customer to execute the agreement or have the affected system transmission provider file it unexecuted

with the Commission. While no comments were filed in opposition to the five business days to notify the affected system transmission provider of the affected system interconnection customer's intent to execute the agreement or request it to be filed unexecuted, as proposed in the NOPR, we believe that 10 business days gives the affected system interconnection customer a more appropriate length of time to review the facilities construction agreement and the timelines and costs contained therein to make a reasoned decision as to whether to execute the agreement or request that it be filed unexecuted with the Commission.

1166. Further, we find that it is appropriate to allow the interconnection customer to request that the affected system facilities construction agreement be filed unexecuted at the Commission. Similar to an interconnection customer's ability pursuant to *pro forma* LGIP section 11.3 to request the unexecuted filing of its LGIA, the ability to request the affected system facilities construction agreement be filed unexecuted allows an affected system interconnection customer to dispute provisions of the affected system facilities construction agreement before the Commission.²²¹⁵ Because (1) the existing *pro forma* LGIP section 11.3 permits the interconnection customer to request the transmission provider to file the LGIA unexecuted, (2) we base the affected system facilities construction agreement on the *pro forma* LGIA, and (3) the affected system facilities construction agreement is like a service agreement,²²¹⁶ it is appropriate to include a similar provision. We further find that an affected system interconnection customer may be in a disadvantageous position to negotiate the terms of an affected system facilities construction agreement, as this agreement is between the affected

system interconnection customer and a transmission provider with which it does not directly connect. Accordingly, to encourage good faith and fair dealings between the parties and to avoid the addition of potentially discriminatory terms or conditions to an affected system facilities construction agreement, we allow an affected system interconnection customer to request that an affected system facilities construction agreement be filed unexecuted before the Commission.

1167. We disagree with commenters' assertions that 30 calendar days may be an inadequate length of time to tender an affected system facilities construction agreement or that considerable time is needed to draft such an agreement.²²¹⁷ This is the same period of time by which the transmission provider must tender a draft LGIA to the interconnection customer, the timeline of which is set forth in the existing *pro forma* LGIP.²²¹⁸ We believe these timelines should be consistent because these agreements include similar provisions and similar requirements and the record does not persuade us otherwise.

1168. We disagree with Idaho Power's suggestion that the affected system transmission provider should tender an affected system facilities construction agreement within 60 calendar days of the interconnection customer executing a facilities study agreement with the host transmission provider because, as the host system and affected system study processes are separate, though overlapping and interrelated, it is more administratively feasible to tie affected system study process deadlines to affected system study process events. In response to Idaho Power's suggestion that the affected system transmission provider should tender an affected system facilities construction agreement within 30 calendar days of providing the affected system study results to the affected system interconnection customer if the affected system study is performed during the facilities study on the host transmission provider's system,²²¹⁹ we note that, as proposed in the NOPR, the affected system facilities construction agreement tender deadline is within 30 calendar days of the tendering of the affected system study report without any additional caveats or conditions. This tender timeline is,

²²¹⁵ See Order No. 2003, 104 FERC ¶ 61,103 at P 233 (stating that, if agreement negotiations are at an impasse, the interconnection customer could either request termination of negotiations and request submission of the unexecuted agreement to the Commission or initiate dispute resolution procedures).

²²¹⁶ See *Revised Publ. Util. Filing Requirements*, Order No. 2001, 99 FERC ¶ 61,107, at PP 196, 200, *reh'g denied*, Order No. 2001–A, 100 FERC ¶ 61,074, *reh'g denied*, Order No. 2001–B, 100 FERC ¶ 61,342, *order directing filing*, Order No. 2001–C, 101 FERC ¶ 61,314 (2002), *order directing filing*, Order No. 2001–D, 102 FERC ¶ 61,334, *order refining filing requirements*, Order No. 2001–E, 105 FERC ¶ 61,352 (2003), *order on clarification*, Order No. 2001–F, 106 FERC ¶ 61,060 (2004), *order revising filing requirements*, Order No. 2001–G, 120 FERC ¶ 61,270, *order on reh'g and clarification*, Order No. 2001–H, 121 FERC ¶ 61,289 (2007), *order revising filing requirements*, Order No. 2001–I, 125 FERC ¶ 61,103 (2008); see also Order No. 2003, 104 FERC ¶ 61,103 at PP 913–915.

²²¹⁷ See Duke Southeast Utilities Initial Comments at 15–16; Idaho Power Initial Comments at 11; MISO Initial Comments at 91–92; WAPA Initial Comments at 13.

²²¹⁸ *Pro forma* LGIP section 11.1.

²²¹⁹ Idaho Power Initial Comments at 11.

however, not directly linked to the host transmission provider's study process.

1169. We also adopt the NOPR proposal to add section 9.7, now section 9.8, to the *pro forma* LGIP. Section 9.8 of the *pro forma* LGIP, titled "Meeting with Transmission Provider," requires the affected system transmission provider and the affected system interconnection customer to meet within 10 business days of the affected system transmission provider tendering the affected system study report to the affected system interconnection customer. We find that such a meeting between the affected system transmission provider and affected system interconnection customer will facilitate transparency and meaningful communication in the affected system study process. We note that WAPA stated that a meeting after the affected system study report is tendered would be more beneficial than an affected system scoping meeting. We agree with WAPA and find that no changes to this section are necessary.

(j) Restudy Period (Pro Forma LGIP Section 9.11)

1170. We adopt the NOPR proposal in section 9.10, now section 9.11, of the *pro forma* LGIP to include a maximum 60-calendar day restudy period for any affected system restudies. We find that 60 calendar days are adequate to complete an affected system restudy. We disagree that affected system restudies are as complex as host system restudies, as affected system studies will likely involve fewer interconnection requests than cluster studies on the host system. Additionally, as discussed further below, we find that standardization of affected system study assumptions through ERIIS modeling criteria will further simplify both affected system studies and restudies. Thus, we find it just and reasonable to adopt a 60-calendar day affected system restudy period.

1171. In addition to the 60-calendar day restudy period, we adopt a 30-calendar day notification requirement for the affected system transmission provider to notify the affected system interconnection customer of the need for affected system restudy upon discovery of such need in *pro forma* LGIP section 9.11. We find such a notification requirement to be consistent with restudy notification on the host system, and we find such notification necessary to continue a timely affected system study process. Accordingly, we find such a notification period to be just and reasonable.

(k) Coordination Between Host Transmission Provider and Affected System Transmission Provider

1172. In response to multiple commenters' assertions that, for efficiency reasons, host transmission providers should be required to coordinate affected system study activities with affected system transmission providers rather than individual interconnection customers,²²²⁰ or that flexibility should be afforded in terms of the parties to the affected system study agreement and the affected system facilities construction agreement,²²²¹ the Commission is not persuaded that any potential efficiencies of such coordination outweigh the burdens that may be placed on host transmission providers, and we decline to require it in this final rule. We note that, in many cases, the affected system operator may be a non-public utility transmission provider, which would limit the usefulness of such a requirement. However, we encourage any such voluntary coordination between transmission providers who share transmission system seams and whose interconnection customers frequently impact each other's systems. We also note that, as NextEra suggests, such transmission providers may file seams agreements under FPA section 205.²²²²

1173. In response to Indicated PJM TOs' argument that affected system studies should be integrated into the cluster study process, we do not have a record to support such a requirement in the final rule. Integrating affected system interconnection customers into a cluster that is already proceeding through the study process could meaningfully change network upgrade cost estimates which could, in turn, create new interconnection request withdrawals, leading to restudies and delays. Maintaining the clusters as-is and placing the affected system interconnection customers in a lower queue position than any interconnection customers that have received cost estimates will ensure this situation does not happen.

1174. In response to APS' request for clarification on how the proposed affected system study process correlates to the host system's studies and aligns with the host system's requirements,²²²³ we explain that the affected system study is predicated on the completion of a cluster study in the host transmission

provider's interconnection queue. Relative queue position for the affected system study is also determined based on an interconnection customer's completion of the host system cluster study. While the host transmission provider will likely complete its facilities study prior to an affected system transmission provider's completion of an affected system study, we add a requirement for host transmission providers with interconnection customers that have not yet received their affected system study results to delay the LGIA execution (or unexecuted filing) deadline for those interconnection customers. An interconnection customer's failure to satisfy its obligations under the *pro forma* LGIP, including coordination with the affected system transmission provider, where applicable, will result in the loss of the interconnection customer's affected system queue position.

(l) Non-Public Utility Requests

1175. We reject requests to impose firm deadlines and requirements that prevent non-public utility transmission providers from interfering with jurisdictional interconnection agreements because we do not have the jurisdiction to do so.²²²⁴

1176. In response to concerns regarding a transmission provider's liability for delays or inaction by non-public utility transmission providers,²²²⁵ we clarify that transmission providers will not face consequences for the inaction of a non-public utility transmission provider, as long as the transmission providers fulfill their obligations as outlined in their LGIPs. For example, under the *pro forma* LGIP affected system process, a transmission provider would satisfy its obligation to a non-public utility affected system operator by timely notifying it of an affected system impact per *pro forma* LGIP section 3.6.1.

(m) Miscellaneous

1177. We do not address the comments of North Carolina Commission and Staff and EDF Renewables that interregional transmission planning is a way to address affected system impacts because these comments are beyond the scope of this proceeding, which is limited to generator interconnection.

²²²⁰ Enel Initial Comments at 60–61; Shell Initial Comments at 30.

²²²¹ PPL Initial Comments at 20.

²²²² NextEra Reply Comments at 5.

²²²³ APS Initial Comments at 19–20.

²²²⁴ Invenenergy Initial Comments at 43; Invenenergy Reply Comments at 9; Interwest Reply Comments at 18.

²²²⁵ EEI Initial Comments at 19; NextEra Initial Comments at 34; Pacific Northwest Utilities Initial Comments at 15–16; Xcel Initial Comments at 39.

1178. In response to Eversource's and NYTOs' requests for clarification that affected system study process reforms would not apply to intra-RTO/ISO system upgrades or would not apply to neighboring transmission owners within a single RTO/ISO,²²²⁶ we clarify that, in RTO/ISO regions, the RTO/ISO serves as the transmission provider for affected system study purposes, and the RTO/ISO footprint as the affected system, and thus intra-RTO/ISO considerations do not apply in this context and are beyond the scope of this final rule.

1179. We disagree with Invenenergy's argument that affected system study process reforms should apply to all pending interconnection requests and active studies.²²²⁷ While we adopt a transition approach for serial and cluster study processes in the final rule, as explained above, we did not propose a similar transition approach with respect to affected system studies in the NOPR. Without consistency between transition processes as they pertain to neighboring transmission providers and implicate the affected system study process, it would be practically infeasible to apply the affected system study process reforms to all pending interconnection requests and active studies as Invenenergy suggests. Accordingly, we decline to apply the affected system study process reforms adopted in this final rule to any pending interconnection requests and active studies.

1180. In response to CREA and NewSun's request for clarification that a QF interconnection customer has the option to opt into use of the Commission's interconnection procedures in cases where the interconnection requires studies or network upgrades on affected systems,²²²⁸ we decline to implement a jurisdictional toggle option for an interconnection customer. Longstanding Commission precedent indicates when a QF's interconnection is subject to state jurisdiction or Commission jurisdiction.²²²⁹ Nothing in this final

rule is intended to revise the Commission's approach under PURPA. Requiring affected system studies does not change the sale of a QF's output, which is the foundation of the Commission's interconnection analysis under PURPA.²²³⁰ To the extent that affected system studies are required due to a QF interconnection, the Commission will address such filings upon their receipt.

c. Affected System Pro Forma Agreements

i. Need for Reform

(a) NOPR Proposal

1181. In the NOPR, the Commission expressed concern that the lack of *pro forma* agreements for affected system studies and the construction of network upgrades on affected systems was hindering the efficiency of the generator interconnection process through increased litigation over such agreements and allowed for potential unduly discriminatory behavior against interconnection customers whose interconnection requests necessitate affected system network upgrades.²²³¹ Noting a recent increase in affected system-related disputes, the Commission preliminarily found it unjust and unreasonable to leave affected system agreements wholly up to individual negotiations and proposed standardized *pro forma* affected system agreements that minimize the likelihood for such disputes by (1) stipulating how to study the impact of interconnecting generating facilities on an affected system to identify network upgrades needed to accommodate the interconnection request and (2) standardizing the affected system facilities construction agreement to set the terms and conditions for the construction of those network upgrades.²²³²

(b) Comments

1182. Many commenters generally support the proposal to develop standardized *pro forma* affected system agreements.²²³³ Commenters state that

standardization and better synchronization of timelines and processes for affected system studies between host and affected system transmission providers will improve the efficiency of the interconnection process and reduce opportunities for undue discrimination.²²³⁴ ELCON suggests that standardization of affected system study agreements, modeling, and assumptions furthers certainty and accountability, resulting in a more transparent, efficient, and cost-effective interconnection process.²²³⁵

(c) Commission Determination

1183. We find that the lack of affected system *pro forma* study and facilities construction agreements hinders the efficiency of the generator interconnection process through increased litigation over such agreements and allows for potential unduly discriminatory behavior against interconnection customers whose interconnection requests necessitate affected system network upgrades. Our establishment of *pro forma* affected system agreements is supported by the record.²²³⁶ We agree with commenters that this standardization of timelines and processes will improve the efficiency of the interconnection process and reduce opportunities for undue discrimination.²²³⁷ For example, in establishing such standardized agreements, affected system transmission providers and affected system interconnection customers will no longer need to negotiate individual non-standard agreements. Also, in requiring affected system transmission providers to adhere to a set of *pro forma* procedures in their tariffs common to all jurisdictional transmission providers, we minimize the opportunities for undue discrimination.²²³⁸ The

Comments at 8; Interwest Reply Comments at 17; Invenenergy Initial Comments at 45; ISO-NE Initial Comments at 37–38; NARUC Initial Comments at 23–24; NYISO Initial Comments at 44–45; Pattern Energy Initial Comments at 26; Pine Gate Initial Comments at 42; SEIA Initial Comments at 34.

²²³⁴ Consumers Energy Initial Comments at 8; Invenenergy Initial Comments at 45; ISO-NE Initial Comments at 37–38.

²²³⁵ ELCON Initial Comments at 8.

²²³⁶ See *id.*; Alliant Energy Initial Comments at 7; APPA-LPPC Initial Comments at 23; Clean Energy Associations Initial Comments at 48; Invenenergy Initial Comments at 45; ISO-NE Initial Comments at 37–38; NARUC Initial Comments at 23–24; NYISO Initial Comments at 44–45; Pattern Energy Initial Comments at 26; Pine Gate Initial Comments at 42; SEIA Initial Comments at 34.

²²³⁷ See Consumers Energy Initial Comments at 8; Invenenergy Initial Comments at 45; ISO-NE Initial Comments at 37–38.

²²³⁸ See, e.g., Order No. 2003, 104 FERC ¶ 61,103 at P 11 (explaining that Commission precedent dating back to Order No. 888 establishes a need for

²²²⁶ See also AEP Initial Comments at 32–33 (highlighting four different types of affected system scenarios and contending that the Commission conflates them).

²²²⁷ Invenenergy Initial Comments at 41.

²²²⁸ CREA and NewSun Initial Comments at 86–88.

²²²⁹ Order No. 2003, 104 FERC ¶ 61,103 at PP 813–814 (finding that, when an electric utility purchases a QF's total output, the state exercises jurisdiction over the interconnection and allocation of interconnection costs, while the presence of any output sold to a third party yields Commission jurisdiction); *Fla. Power & Light Co.*, 133 FERC ¶ 61,121, at PP 19–23 (2010). See also 18 CFR 202.303, 202.306 (2022); *Participation of Distributed Energy Res. Aggregations in Mkts. Operated by Reg'l Transmission Orgs. & Indep. Sys.*

Operators, Order No. 2222, 85 FR 67094 (Oct. 21, 2020), 172 FERC ¶ 61,247, at P 98 (2020), *corrected*, 85 FR 68540 (Oct. 29, 2020) (citing Order No. 2003, 104 FERC ¶ 61,103 at PP 813–815; Order No. 2006, 111 FERC ¶ 61,220 at PP 516–518; Order No. 845, 163 FERC ¶ 61,043) (stating that nothing in the final rule revises the Commission's jurisdictional approach to interconnections of QFs that participate in distributed energy resource aggregations).

²²³⁰ Order No. 2003, 104 FERC ¶ 61,103 at PP 813–814.

²²³¹ NOPR, 179 FERC ¶ 61,194 at P 194.

²²³² *Id.* PP 194–195.

²²³³ Alliant Energy Initial Comments at 7; APPA-LPPC Initial Comments at 23; Clean Energy Associations Initial Comments at 48; ELCON Initial

standardization of affected system agreements also furthers certainty and accountability, resulting in a more transparent, efficient, and cost-effective interconnection process by ensuring affected system interconnection customers know the standard scope and terms of agreements for the affected system interconnection process prior to entering the interconnection queue.²²³⁹

ii. Pro Forma Affected System Study Agreement

(a) NOPR Proposal

1184. In the NOPR, the Commission proposed to establish a *pro forma* affected system study agreement to improve the efficiency and transparency of the interconnection customer's interaction with the affected system transmission provider.²²⁴⁰ The Commission proposed to model the *pro forma* affected system study agreement on the form of the existing *pro forma* system impact study agreement, with necessary minor revisions to the party names.²²⁴¹ Specifically, the affected system interconnection customer and affected system transmission provider would be parties to the agreement.

1185. In articles 1, 2, 3, and 4, respectively, of the proposed *pro forma* affected system study agreement, the agreement specifies (1) the capitalization of defined terms in the *pro forma* LGIP, (2) that coordination with the host transmission provider shall occur pursuant to *pro forma* LGIP section 9, (3) that study assumptions shall be set forth in attachment A to the agreement, and (4) that studies shall be based on technical information provided by the affected system interconnection customer. In article 5, with regard to the information the affected system transmission provider will provide to the affected system interconnection customer in a study report upon completion of the affected system study, the Commission proposed to require the following: identification of any circuit breaker short circuit capability limits exceeded as a result of the interconnection; identification of any thermal overload or voltage limit violations resulting from the interconnection; identification of any instability or inadequately damped response to system disturbances resulting from the interconnection; a non-binding, good faith estimate of the cost of facilities on the affected system required to accommodate the

interconnection of the affected system interconnection customer's project to the host transmission system; and a description of how such facilities will address the identified short circuit, instability, and power flow issues identified in the affected system study.²²⁴² The Commission sought comment on whether the information required for the study report would provide adequate information to the affected system interconnection customer to understand the results of the affected system study. Finally, in articles 6 and 7, the Commission specified the provision of an affected system study deposit and that standard miscellaneous terms would be used consistent with industry best practice and with the *pro forma* LGIP and *pro forma* LGIA.

(b) Comments

1186. Some commenters generally support the NOPR proposal to develop a *pro forma* affected system study agreement.²²⁴³ Others generally support the establishment of a *pro forma* affected system study agreement but suggest general changes to the approach proposed in the NOPR. For example, MISO states that the requirement to execute an agreement with each affected system interconnection customer would create a significant amount of work for transmission providers that is likely to divert resources from performing studies and coordinating with other transmission providers without any greater benefit than provided by existing joint operating agreements and other seams agreements with neighboring systems.²²⁴⁴ SPP adds that requiring individualized invoicing for all affected system study requests from another transmission provider's cluster study would present a significant administrative burden for both transmission providers and interconnection customers, which would be required to deal with multiple transmission providers, instead of just the host transmission provider.²²⁴⁵ SPP notes that, in its joint operating agreement with MISO, the transmission providers coordinate affected system studies following each transmission provider's system impact studies on their own systems, and rather than invoicing each interconnection customer individually, the transmission

providers invoice each other for study costs, which allows the host transmission provider to use existing study deposits when available, and otherwise collect from its interconnection customers as needed.²²⁴⁶

1187. Other commenters suggest specific changes to the language proposed in the NOPR. For instance, Tri-State proposes adding language to article 9.4 of the *pro forma* LGIP specifying a protocol if deficiencies are not cured, such as, "shall be deemed withdrawn pursuant to Section 3.7 of this LGIP."²²⁴⁷ PPL argues that the *pro forma* affected system study agreement should: (1) have article 7 replaced entirely with actual contractual terms; (2) contain a clear requirement for affected system interconnection customers to provide data in a timely manner; (3) include data ownership and confidentiality provisions; and (4) address restudies.²²⁴⁸

1188. Additionally, Tri-State includes an appendix containing a redline version of the *pro forma* affected system study agreement that specifies its requested revisions to the agreement. Of note, Tri-State proposes changes to article 6, which would require the affected system transmission provider to specify the affected system study deposit value.²²⁴⁹

1189. In response to whether the information required in the affected system study report would provide adequate information to the affected system interconnection customer to understand the results of the affected system study, Xcel states that the proposed information is adequate.²²⁵⁰ Duke Southeast Utilities support the information required by article 5 of the proposed agreement but suggest that any other identified impacts outside of the prescribed information should also be included.²²⁵¹ LADWP believes that the study report should also include whether modifications to remedial action schemes or other special protection systems may be required.²²⁵²

1190. Enel seeks clarification on whether the affected system study scope must include all of "a short circuit analysis, thermal overload or voltage limit identification, and stability analysis, and a power flow analysis," as proposed in *pro forma* LGIP section 9.5,

standard procedures and agreements, in part to minimize opportunities for undue discrimination).

²²³⁹ ELCON Initial Comments at 8.

²²⁴⁰ NOPR, 179 FERC ¶ 61,194 at P 197.

²²⁴¹ *Id.* P 198.

²²⁴² *Id.* P 199.

²²⁴³ Ameren Initial Comments at 23; Duke Southeast Utilities Initial Comments at 18; North Carolina Commission and Staff Initial Comments at 24; U.S. Chamber of Commerce Initial Comments at 10–11.

²²⁴⁴ MISO Initial Comments at 96.

²²⁴⁵ SPP Initial Comments at 19.

²²⁴⁶ *Id.* at 18–19.

²²⁴⁷ Tri-State Initial Comments at 31–32.

²²⁴⁸ PPL Initial Comments at 20.

²²⁴⁹ Tri-State Initial Comments, app. B, at 122–124.

²²⁵⁰ Xcel Initial Comments at 39.

²²⁵¹ Duke Southeast Utilities Initial Comments at 18.

²²⁵² LADWP Initial Comments at 5.

and requests that transmission providers be allowed to waive portions of the study scope if deemed unnecessary.²²⁵³

1191. Several entities ask the Commission to allow regional variations to avoid conflict with existing affected system coordination processes.²²⁵⁴

(c) Commission Determination

1192. We adopt, with modifications, the proposed *pro forma* affected system study agreement set forth in Appendix 9 of the *pro forma* LGIP.²²⁵⁵ As discussed below, we make two modifications. First, consistent with comments,²²⁵⁶ we establish a multiparty *pro forma* affected system study agreement set forth in Appendix 10 of the *pro forma* LGIP. Second, we modify article 6 of the proposed *pro forma* affected system study agreement to make the language therein consistent with similar language elsewhere in the *pro forma* LGIP.²²⁵⁷

1193. Starting with the multiparty *pro forma* affected system study agreement, as described above, we require affected system transmission providers to study affected system interconnection requests in clusters. To facilitate this change, we modify the NOPR proposal and establish a *pro forma* multiparty affected system study agreement that closely tracks the proposed two-party agreement. Such a *pro forma* multiparty agreement will allow affected system transmission providers to enter into the same affected system study agreement with each of the affected system interconnection customers that it must study in a cluster. We find that a *pro forma* multiparty affected system study agreement will facilitate interactions with the affected system transmission provider, making them more efficient and transparent. We agree with SPP and MISO that a requirement for an affected system transmission provider to sign affected system study agreements with each affected system interconnection customer would be burdensome.²²⁵⁸ In creating a *pro forma* multiparty affected system study agreement, we reduce the administrative burden on transmission providers that no longer need to manage

several individual affected system study agreements.

1194. In response to SPP and MISO's suggestion to make the parties to the *pro forma* affected system study agreement the affected system transmission provider and the host transmission provider, we decline this request. We believe that the interconnection customer, as the one responsible for providing necessary information about the proposed generating facility as well as funding the affected system study, is the appropriate counterparty to the affected system study agreement. We note, however, that any transmission providers may propose alternative arrangements through joint operating agreements or otherwise pursuant to FPA section 205.

1195. In response to comments from Tri-State and PPL's request regarding affected system interconnection customers that fail to provide required information,²²⁵⁹ we find that sufficient requirements for data sharing exist in both the current and newly adopted *pro forma* LGIP requirements. Specifically, as discussed above and consistent with comments from Tri-State, we modify *pro forma* LGIP section 9.5 to explicitly state that any affected system interconnection customer failing to submit required information and failing to cure that deficiency shall lose its affected system queue position. We also add to *pro forma* LGIP section 9.5 a requirement that the affected system transmission provider notify the host transmission provider in a timely manner of such failure by the affected system interconnection customer.

1196. In response to Tri-State's requested revisions to article 6 of the *pro forma* affected system study agreement, we modify the *pro forma* affected system study agreement to add additional language to explicitly require affected system interconnection customers to provide a study deposit. The deposit will provide for the cost of the affected system interconnection study. Moreover, we find that such revisions will align the *pro forma* affected system study agreement with Appendix 2 (cluster study agreement), Appendix 3 (interconnection facilities study agreement), and Appendix 4 (optional interconnection study agreement) of the *pro forma* LGIP.

1197. In response to PPL's request that article 7, regarding standard miscellaneous terms, should be replaced with actual contractual terms, we decline to adopt PPL's proposed revisions. We adopt article 7 of the *pro*

forma affected system study agreement, with modification to eliminate the reference to the LGIA. We note that this article 7 is consistent with the existing *pro forma* interconnection system impact study agreement (which the Commission is replacing with new cluster study-based agreements adopted in this final rule), interconnection facilities study agreement, and optional interconnection study agreement, which also provide for standard miscellaneous terms. In response to PPL's requests that the *pro forma* affected system study agreement should address data ownership and confidentiality requirements as well as restudies, we find such revisions to the proposed *pro forma* affected system study agreement unnecessary, as they would be duplicative of existing *pro forma* LGIP provisions regarding confidentiality (section 13.1) and restudies (former section 6.4, now contained in sections 7.5, 8.5, and 9.10). Regarding the removal of the reference to the LGIA, we find that the removal is appropriate as the parties to an interconnection customer's LGIA would not be the same parties to an affected system study agreement.

1198. In response to comments on the scope of the *pro forma* affected system study, we agree with Xcel that the scope of the affected system study is adequate.²²⁶⁰ Consequently, we decline to modify the scope of the affected system study contained in article 5 of the proposed *pro forma* affected system study agreement. We note that the scope of the affected system studies identified in article 5 is consistent with the scope of host system interconnection studies.²²⁶¹ In response to comments from Duke Southeast Utilities that entities should be able to include other, identified impacts in the affected system study report, we clarify that the scope of affected system studies must be consistent with the scope listed in article 5 of the *pro forma* affected system study agreement. Affording affected system transmission providers flexibility to expand the scope of affected system studies on an ad hoc or individual basis creates the potential for undue discrimination and a barrier to entry. With respect to LADWP's request to include impacts to remedial action schemes and other special protection systems within the scope of the affected system studies,²²⁶² we clarify that such impacts are already contemplated in

²²⁵³ Enel Initial Comments at 65.

²²⁵⁴ Ameren Initial Comments at 23; MISO Initial Comments at 95; SPP Initial Comments at 18–19.

²²⁵⁵ NOPR, 179 FERC ¶ 61,194 at P 197.

²²⁵⁶ MISO Initial Comments at 96; SPP Initial Comments at 18–19.

²²⁵⁷ We also make minor consistency edits to article 5 of the proposed *pro forma* affected system study agreement, to conform the *pro forma* affected system study agreement with *pro forma* LGIP section 9.6.

²²⁵⁸ MISO Initial Comments at 96; SPP Initial Comments at 18–19.

²²⁵⁹ PPL Initial Comments at 20; Tri-State Initial Comments at 18–19.

²²⁶⁰ Xcel Initial Comments at 39.

²²⁶¹ *Pro forma* LGIP, app. 2, art. 5; app. 3, art. 4.

²²⁶² LADWP Initial Comments at 5.

article 5 of the *pro forma* affected system study agreement.

iii. Pro Forma Affected System Facilities Construction Agreement

(a) NOPR Proposal

1199. In the NOPR, the Commission proposed to revise the *pro forma* LGIP to add a *pro forma* affected system facilities construction agreement.²²⁶³ The proposed *pro forma* affected system facilities construction agreement includes provisions on the following: terms of the agreement; construction of network upgrades; taxes; *force majeure*; information reporting; security, billing, and payments; assignment; indemnity; breach, cure, and default; termination; contractors; confidentiality; information access and audit rights; dispute resolution; and notices.²²⁶⁴ Proposed Appendix A to the agreement provides for details on identified network upgrades, cost estimates and responsibility, the construction schedule for network upgrades, and a payment schedule; proposed Appendix B addresses notification of completed construction; and proposed Appendix C provides for a transmission provider site map, a site plan, a plan and profile for network upgrades, and the estimated cost of the network upgrades.

1200. The Commission proposed that the *pro forma* affected system facilities construction agreement would be entered into by the affected system transmission provider and the affected system interconnection customer.²²⁶⁵ Under the NOPR proposal, the affected system transmission provider would be responsible for the design, procurement, construction, and installation of all network upgrades identified in Appendix A using reasonable efforts to complete construction consistent with the schedule identified in Appendix A. The affected system interconnection customer would initially fund the cost of any assigned network upgrades and be reimbursed by the affected system transmission provider.²²⁶⁶ Rather, the Commission proposed to require that, consistent with Order No. 2003, the affected system interconnection customer must enter into an agreement with the affected system transmission provider that must specify the terms governing payments to be made by the affected system interconnection customer as well as payment of refunds by the affected system transmission

provider for the full cost of network upgrades, plus interest.²²⁶⁷

1201. The Commission clarified that the term to be mutually agreed upon for payment of refunds to affected system interconnection customer funded network upgrades is not to exceed 20 years.²²⁶⁸ This term mirrors the repayment term in the *pro forma* LGIA but allows for flexibility for the parties to come to another arrangement if they prefer. Under the NOPR proposal, within six months of completion of construction of any required network upgrades, the affected system transmission provider would invoice the affected system interconnection customer for the final construction costs, including a true-up of estimated and actual costs. The *pro forma* affected system facilities construction agreement would terminate upon the affected system transmission provider's final repayment to the affected system interconnection customer. Alternatively, the affected system interconnection customer could also terminate the affected system facilities construction agreement with 60 calendar days' written notice to the affected system transmission provider.

1202. The Commission sought comment on the network upgrade funding and repayment provisions in the proposed *pro forma* affected system facilities construction agreement, specifically whether the repayment time frame and the similarity of the proposal to the repayment terms in the *pro forma* LGIA were appropriate.²²⁶⁹ The Commission also sought comment on whether any articles or provisions should be added to the proposed *pro forma* affected system facilities construction agreement or whether the proposed provisions were sufficient.²²⁷⁰

(b) Comments

1203. Some commenters generally support the proposed *pro forma* affected system facilities construction agreement because it will offer uniformity across the country and increase administrative efficiency.²²⁷¹ Others argue that the agreement should be structured as either an individual network upgrade agreement or a multiparty network upgrade agreement.²²⁷²

²²⁶⁷ *Id.* P 739.

²²⁶⁸ *Id.*; see also Order No. 2003–B, 109 FERC ¶ 61,287 at PP 32–36 (extending the required repayment period from five years to 20 years).

²²⁶⁹ NOPR, 179 FERC ¶ 61,194 at P 203.

²²⁷⁰ *Id.* P 204.

²²⁷¹ Ameren Initial Comments at 23; Duke Southeast Utilities Initial Comments at 18; SPP Initial Comments at 19–20.

²²⁷² PPL Initial Comments at 20; SPP Initial Comments at 20.

1204. Some commenters request that the Commission allow for regional variations to avoid conflict with existing *pro forma* facilities construction agreements.²²⁷³

(1) Comments on Specific Provisions and Related Proposals

1205. As a global change, Xcel recommends that the defined term “affected system operator” be used instead of “transmission provider” when referencing the affected system transmission provider, arguing that the use of the terms “transmission provider” and “transmission provider acting as affected system” are confusing and may conflict with usage of those terms in the LGIP.²²⁷⁴

1206. With regard to article 2 (Term of Agreement), Tri-State proposes the following addition: “No Transmission Delivery Service. The execution of this LGIA does not constitute a request for, nor the provision of, any transmission delivery service under Transmission Provider's Tariff, and does not convey any right to deliver electricity to any specific customer or Point of Delivery.”²²⁷⁵ Additionally, Tri-State opposes the option in proposed article 2.2.1 that would allow the affected system interconnection customer to terminate the affected system facilities construction agreement with 60 calendar days' written notice. Tri-State contends that allowing such termination could trigger restudies for the affected system transmission provider.²²⁷⁶

1207. Southern states that the Commission should either reconsider or clarify proposed article 2.2.2 (Termination Upon Default) and proposed article 5.2 (Notice of Breach, Cure, and Default), which it states appears to provide that if a default does not pose a threat to the reliability of the affected system transmission provider's transmission system, the affected system transmission provider may not terminate the agreement if the affected system interconnection customer has begun to cure and compensate the transmission provider for any damage.²²⁷⁷ Southern argues that such provisions should be consistent with *pro forma* LGIA provisions and that, if an affected system interconnection customer defaults under the LGIA, the affected system operator should not be required to build affected system network upgrades. Southern argues that,

²²⁷³ Ameren Initial Comments at 23; MISO Initial Comments at 97; NYISO Initial Comments at 45; PPL Initial Comments at 22.

²²⁷⁴ Xcel Initial Comments at 40.

²²⁷⁵ Tri-State Initial Comments at 32.

²²⁷⁶ *Id.* at 21.

²²⁷⁷ Southern Initial Comments at 18.

²²⁶³ NOPR, 179 FERC ¶ 61,194 at P 200.

²²⁶⁴ *Id.* P 201.

²²⁶⁵ *Id.* P 202.

²²⁶⁶ Order No. 2003, 104 FERC ¶ 61,103 at P 738.

if the provisions are not consistent with the *pro forma* LGIA, affected system transmission providers will build affected system network upgrades that are not needed, and there will be different default and termination rights applicable to these improvements. Similarly, Tri-State submits suggested edits to proposed article 2.2.2, which remove the provisions Southern comments on, explaining that a default should only occur after a breach and failure to cure.²²⁷⁸

1208. Invenergy opposes proposed article 2.2.3, which provides that, upon termination of the affected system facilities construction agreement, the affected system interconnection customer would be responsible for costs incurred by another affected system interconnection customer due to the termination of: (1) its affected system facilities construction agreement; (2) that interconnection customer's LGIA; or (3) any of that interconnection customer's other affected system facilities construction agreements.²²⁷⁹ Some commenters argue that this requirement is unreasonable and must be revised.²²⁸⁰ They claim that there is no basis for imposing on the affected system interconnection customer broad and potentially exorbitant liability for any potential impacts on any other interconnection customer within the affected system, which they argue exceeds potential liability imposed under the *pro forma* LGIA for the host transmission provider's transmission system.²²⁸¹ Invenergy states that the provision appears to be based on a provision in MISO's *pro forma* facilities construction agreement, which it argues does not make sense for a generically applicable *pro forma* agreement.

1209. As for proposed article 3 (Construction of Network Upgrades), some commenters object to limiting the right to suspend for *force majeure* events, contained in proposed article 3.1.2.1.²²⁸² Southern states that proposed article 3.1.2.1 appears to provide that the affected system interconnection customer may only suspend its interconnection request if there is a *force majeure* event and that no such limitation on suspension rights exists under the *pro forma* LGIA, meaning that an affected system

interconnection customer could suspend its interconnection request under the *pro forma* LGIA but still be required to move forward with construction of affected system network upgrades, if the reason for suspension under the *pro forma* LGIA is not a *force majeure* event.²²⁸³ Enel asserts that the Commission has not provided justification for limiting the affected system interconnection customer's suspension rights to just *force majeure* events.²²⁸⁴ Enel, Invenergy, and Southern argue that suspension rights under the *pro forma* affected system facilities construction agreement should be consistent with the suspension rights under the *pro forma* LGIA, with Invenergy highlighting that the *pro forma* LGIA permits suspension for up to three years.²²⁸⁵ Conversely, Tri-State argues that the same *force majeure* language used in proposed article 3.1.2.1 should be added to both the *pro forma* LGIA and *pro forma* LGIP.²²⁸⁶

1210. MISO suggests that there should be a provision in the *pro forma* affected system facilities construction agreement on cross-defaults between the affected system facilities construction agreement and the interconnection customer's LGIA.²²⁸⁷ MISO asserts that, as proposed, if the affected system interconnection customer refuses to make payments under an affected system facilities construction agreement, it is unclear how it would affect the affected system interconnection customer's LGIA.

1211. In response to proposed article 3.2.2.1, which would require affected system transmission providers to reimburse affected system interconnection customers for their affected system network upgrade costs, many commenters support the proposal,²²⁸⁸ while many others oppose it.²²⁸⁹ In support, commenters contend that the reimbursement policy is consistent with long-established Commission precedent and cost

causation, as it ensures that affected system network upgrade cost reimbursement is rate-based, such that the transmission customers that ultimately benefit from the network upgrades pay for those upgrades.²²⁹⁰ In contrast, according to these commenters, allowing transmission customers of the affected system to receive the benefits of an affected system network upgrade, without paying for it, would create a "free-rider" problem that is inconsistent with the "beneficiary pays" principle.²²⁹¹

1212. Other commenters do not fully oppose the proposal but suggest changes to proposed article 3.2.2.1. For instance, MISO and Southern contend that the repayment provisions for affected system interconnection customers should be consistent with how the transmission provider repays its internal interconnection customers.²²⁹² MISO asserts that this will ensure comparability and non-discriminatory treatment between affected system interconnection customers and "native" interconnection customers interconnected to the affected system.²²⁹³ APPA-LPPC argue that the NOPR proposal is missing an express, contractual commitment ensuring that an interconnection customer will fund network upgrades identified by the affected system as a condition of interconnection.²²⁹⁴ APPA-LPPC state that they believe this to be implicit in the proposal and that the provision should specify that the identified affected system transmission provider is an intended third-party beneficiary of the LGIA. APPA-LPPC contend that the absence of such a contractual obligation on the part of the interconnection customer is a particular concern for non-public utilities, which have no standing under the FPA to seek funding for network upgrades under Commission-jurisdictional tariffs. However, according to Southern, in Order No. 2003, the Commission declined to make a generic finding on the possibility of network upgrade costs being passed onto native load and transmission customers and instead allowed transmission providers to make a filing if such entities were not being held harmless.²²⁹⁵ Southern states that

²²⁸³ Southern Initial Comments at 18–19.

²²⁸⁴ Enel Initial Comments at 83–84.

²²⁸⁵ *Id.* at 83; Invenergy Initial Comments at 47; Southern Initial Comments at 18–19.

²²⁸⁶ Tri-State Initial Comments at 33.

²²⁸⁷ MISO Initial Comments at 97.

²²⁸⁸ ACE-NY Initial Comments 9; AES Initial Comments at 22; Ameren Initial Comments at 23; APPA-LPPC Initial Comments at 23; Enel Initial Comments at 66–67; Shell Initial Comments at 33–34.

²²⁸⁹ AECI Initial Comments at 9; Duke Southeast Utilities Initial Comments at 19; EEI Initial Comments at 18–19; North Carolina Commission and Staff Initial Comments at 6; PG&E Reply Comments at 5–6; PPL Initial Comments at 20; Southern Reply Comments at 7–8; Tri-State Initial Comments at 21–22; U.S. Chamber Commerce Initial Comments at 11; WAPA Initial Comments at 13–14; Xcel Initial Comments at 40.

²²⁹⁰ Enel Initial Comments at 66; Shell Initial Comments at 35.

²²⁹¹ ACE-NY Initial Comments 9; Shell Initial Comments at 35–36.

²²⁹² MISO Initial Comments at 97; Southern Initial Comments at 4.

²²⁹³ MISO Initial Comments at 97.

²²⁹⁴ APPA-LPPC Initial Comments at 24–25.

²²⁹⁵ Southern Initial Comments at 17–18; Southern Reply Comments at 8 (citing Order No.

²²⁷⁸ Tri-State Initial Comments at 33.

²²⁷⁹ Invenergy Initial Comments at 45.

²²⁸⁰ *Id.* at 46; Interwest Reply Comments at 18–19; Tri-State Initial Comments at 20.

²²⁸¹ Interwest Reply Comments at 18–19; Invenergy Initial Comments at 46; Tri-State Initial Comments at 20.

²²⁸² Enel Initial Comments at 83–84; Invenergy Initial Comments at 47; Southern Initial Comments at 18; Tri-State Initial Comments at 20.

the Commission should clarify that a transmission provider can make such a filing, if warranted, in which it could propose that affected system interconnection customers bear the cost responsibility of identified affected system network upgrades.²²⁹⁶

1213. Among issues raised by commenters that oppose the proposal, one common concern is that the proposal would force affected system transmission providers to subsidize interconnection to neighboring transmission systems, despite potentially not receiving any energy from such interconnection customers, causing increased costs to the affected system due to the requirement to mitigate negative thermal, voltage, and stability impacts without a corresponding increase in benefits.²²⁹⁷ North Carolina Commission and Staff also contend that the Commission has not provided evidence on this matter that would allow the Commission to meet its burden under FPA section 206.²²⁹⁸ Some commenters assert that the affected system interconnection customer should be responsible for the costs of affected system network upgrades in exchange for use of the affected system (*i.e.*, via transmission service).²²⁹⁹ Xcel notes that, for loop flow impacts, the affected system interconnection customer may not formally take transmission service but may be granted the right to the transmission capacity associated with the loop flows they cause, and some transmission providers have charged unreserved use for such impacts or otherwise required neighbors to pay for the transmission use.²³⁰⁰

1214. North Carolina Commission and Staff observe that, if the Commission were to implement the NOPR proposal and allow RTOs/ISOs to obtain independent entity variations from the proposed affected system pricing scheme implementing a participant funding model, then North Carolina retail and wholesale customers of Duke Energy Carolinas and Duke Energy Progress would be paying for affected

system network upgrade costs when a generating facility interconnects with the PJM-controlled transmission system in addition to paying for network upgrade costs for native interconnection customers when generating facilities interconnect with Duke Energy Progress or Duke Energy Carolinas-owned transmission facilities, which they argue would be patently unjust, unfair, and unduly preferential.²³⁰¹

1215. Several commenters argue that the NOPR proposal is contrary to important objectives articulated in Order No. 2003.²³⁰² For instance, Duke Southeast Utilities contend that, if transmission providers are required to reimburse affected system interconnection customers for costs advanced for affected system network upgrades, such transmission providers will seek to obtain rate recovery of their reimbursement cost from existing wholesale and retail transmission customers, meaning those classes of customers will not be protected from adverse rate implications because they will have to absorb all affected system network upgrade costs.²³⁰³ According to Duke Southeast Utilities, this is contrary to an important objective articulated in Order No. 2003–B of the interconnection pricing policy protecting existing transmission customers from adverse rate implications associated with interconnection facilities and network upgrades required to interconnect a new generating facility.²³⁰⁴

1216. According to PPL, the pricing policy established in Order No. 2003 was meant to promote competition in markets “still dominated by non-independent transmission providers.”²³⁰⁵ PPL argues that non-RTO/ISO transmission providers no longer dominate, and therefore this policy is no longer necessary.²³⁰⁶ PPL asserts that, contrary to the time of Order No. 2003’s issuance, and as a result of the size and nature of generating facilities being developed in RTO/ISO regions, non-RTOs/ISOs might be required to build costly affected system network upgrades to accommodate the interconnection of generating facilities in adjacent markets. PPL contends that affected system

network upgrade costs can overwhelm the total network upgrade costs identified for reliability or other planning purposes. PPL claims, however, that the affected system network upgrade reimbursement proposal in the NOPR is directly contrary to the Commission’s interconnection pricing policy meant to protect existing customers from the rate impacts of interconnection-related network upgrades,²³⁰⁷ and allows affected system interconnection customers to benefit from network upgrades without paying for them.²³⁰⁸ Thus, PPL asserts that the Commission should allow affected system transmission providers the flexibility to directly assign affected system network upgrade costs. Duke Southeast Utilities concur, asserting that there is ample precedent of the Commission accepting, without modification, an affected system operating agreement between affected system transmission providers and affected system interconnection customers that directly assign network upgrade costs to such interconnection customers without reimbursement.²³⁰⁹

1217. Invenenergy asserts that the Commission should reject arguments challenging the Commission’s interconnection pricing policy established in Order No. 2003.²³¹⁰ Invenenergy contends that this interconnection pricing policy was fully litigated in the Order No. 2003 rulemaking proceeding and that issues relating to cost causation were fully and carefully considered at that time.²³¹¹ Invenenergy also argues that Duke Southeast Utilities’ reference to Order No. 2003–B is misplaced, as the Commission, in Order No. 2003–B, found that the interconnection pricing policy fully protected native load customers and that transmission providers could make and justify alternative proposals on compliance.²³¹²

1218. Duke Southeast Utilities and North Carolina Commission and Staff assert that the affected system network upgrade reimbursement proposal will stifle renewable generating facility

2003–A, 106 FERC ¶ 61,220 at P 586; Order No. 2003–B, 109 FERC ¶ 61,287 at P 56).

²²⁹⁶ Southern Initial Comments at 17–18; Southern Reply Comments at 9–10.

²²⁹⁷ AECI Initial Comments at 9; Duke Southeast Utilities Initial Comments at 21–22, 26; EEI Initial Comments at 18–19; North Carolina Commission and Staff Initial Comments at 6; PPL Initial Comments at 21; Tri-State Initial Comments at 21–22; U.S. Chamber of Commerce Initial Comments at 11–12; Xcel Initial Comments at 40.

²²⁹⁸ North Carolina Commission and Staff Initial Comments at 16.

²²⁹⁹ Tri-State Initial Comments at 20; Xcel Initial Comments at 40.

²³⁰⁰ Xcel Initial Comments at 40.

²³⁰¹ North Carolina Commission and Staff Initial Comments at 23.

²³⁰² Duke Southeast Utilities Initial Comments at 23; PPL Initial Comments at 20–21.

²³⁰³ Duke Southeast Utilities Initial Comments at 23.

²³⁰⁴ *Id.* (citing Order No. 2003–B, 109 FERC ¶ 61,287 at P 56).

²³⁰⁵ PPL Initial Comments at 20 (citing Order 2003–A, 106 FERC ¶ 61,220 at P 636).

²³⁰⁶ *Id.* at 20–21.

²³⁰⁷ *Id.* at 21 (citing Order 2003–A, 106 FERC ¶ 61,220 at P 586; Order 2003–B, 109 FERC ¶ 61,287 at P 56).

²³⁰⁸ *Id.* at 21–22.

²³⁰⁹ Duke Southeast Utilities Initial Comments at 24 (citing, *e.g.*, Docket No. ER21–1701–000 (involving acceptance of an affected system upgrade agreement between Southern and Cooperative Energy)).

²³¹⁰ Invenenergy Reply Comments at 10 (citing Order No. 2003, 104 FERC ¶ 61,103 at PP 693–696).

²³¹¹ *Id.* at 11–12 (citing Order No. 2003, 104 FERC ¶ 61,103 at PP 684, 693–696).

²³¹² *Id.* at 10–11.

development.²³¹³ For instance, Duke Southeast Utilities argue that mandatory reimbursement has the likelihood of chilling development of new, mainly renewable, generating facilities in states that consider such costs as part of overall development costs when considering whether to issue a certificate of public convenience and necessity to permit these generating facilities.²³¹⁴

1219. Moreover, Duke Southeast Utilities argue that the mandatory reimbursement by affected system transmission providers of affected system network upgrade costs fails to encourage efficient siting decisions by affected system interconnection customers.²³¹⁵ Duke Southeast Utilities assert that, if affected system interconnection customers are reimbursed for 100% of the costs of network upgrades on the affected system plus interest at the Commission-prescribed rate, they actually profit financially from such reimbursement.²³¹⁶

1220. Invenergy argues that the possibility of certain states considering affected system network upgrade costs in permitting proceedings does not call the Commission's existing pricing policy into question.²³¹⁷ In response to arguments that the NOPR proposal could foster inefficient siting, Invenergy asserts that this argument was considered and settled in the Order No. 2003 rulemaking proceeding.²³¹⁸ Invenergy contends that such comments are speculative and ignore other facts, such as that identification of affected system network upgrades typically occurs after most siting decisions are made.

1221. North Carolina Commission and Staff argue that affected system costs are no longer incidental or rare and have been escalating over time.²³¹⁹ North Carolina Commission and Staff allege that the proposed crediting policy will force North Carolina wholesale and retail ratepayers to subsidize the policy choices of other states and the corporate goals of businesses located in other states.

1222. Public Interest Organizations urge the Commission to disregard North Carolina Commission and Staff's assertions on this matter, arguing that the NOPR proposal is unrelated to state and corporate policies.²³²⁰ Public Interest Organizations assert that the proposal is meant to address existing gaps in the *pro forma* LGIP that apply to all interconnection customers regardless of fuel type and motivation for generating facility development.

1223. WAPA expresses significant concerns with the NOPR proposal, emphasizing that it requires the affected system transmission provider to reimburse the affected system interconnection customer cash plus interest over 20 years for the cost of affected system network upgrades.²³²¹ WAPA states that, as a Federal agency, it cannot provide a cash payment with interest to an interconnection customer that does not take transmission service from WAPA.²³²² According to WAPA, per its tariff, it only provides network credits, not cash payments, for such customers, and it would need to work with the host transmission provider to ensure a mechanism is developed to properly credit the affected system interconnection customer.²³²³

1224. Also on proposed article 3 of the *pro forma* affected system facilities construction agreement, Tri-State notes that proposed article 3.2.2.1 (Repayment) does not contain a reference to determine if affected system network upgrades are unnecessary.²³²⁴ Separately, Tri-State also suggests revisions to state that the repayment period should end no later than 20 years from the completion of the construction of the affected system interconnection customer's generating facility, rather than completion of the construction of the affected system network upgrades.²³²⁵

1225. With regard to proposed article 4 (Security, Billing, and Payments), PacifiCorp offers suggested revisions to proposed article 4.1, which PacifiCorp asserts are intended to, among other

things, clarify that additional security will be required from the affected system interconnection customer if the affected system transmission provider determines that the costs of facilities may exceed the initial estimate provided to the affected system interconnection customer.²³²⁶ PPL also states that affected system interconnection customers should be required to meet credit and security requirements.²³²⁷

1226. As for proposed article 6 (Termination of Agreement), Tri-State suggests consolidating proposed article 6.3.3 (Pre-construction of Installation) with proposed article 2.2.3 and proposes removing some language in proposed article 6.4 (Survival Rights) that it argues is duplicative of proposed article 2.4.²³²⁸

1227. Commenters also respond to the proposed confidentiality provisions. Southern asserts that proposed article 8.1 in the *pro forma* affected system facilities construction agreement, section 13.1 in the *pro forma* LGIP, and article 22 in the *pro forma* LGIA should be revised to reflect the use of backup servers and the obligations of transmission providers to share information under NERC Reliability Standards.²³²⁹ Southern asserts that it is administratively difficult to meet the requirements in these provisions that specify that confidential information be destroyed or returned, arguing that this provision should allow information to be stored on backup servers. Southern also notes that, under NERC Reliability Standards, which were developed after the effective date of Order No. 2003, transmission providers must disclose confidential information to neighboring transmission providers, and therefore, this language should be updated to reflect that the transmission provider must share this confidential information.

1228. Moving to proposed Appendix A, MISO contends that there is no need for a commercial operation date to be listed for affected system network upgrades in proposed Appendix A.²³³⁰ MISO argues that commercial operation is something that occurs in the LGIA context, where the affected system interconnection customer's injection of energy onto the host transmission provider is memorialized.

²³²⁰ Public Interest Organizations Reply Comments at 18–19.

²³²¹ WAPA Initial Comments at 13.

²³²² *Id.* Specifically, WAPA states that it must deposit all revenues received into a reclamation fund and that it would need an appropriation from Congress to use the money in the reclamation fund to pay interconnection customers. *Id.* at 13 n.17 (citing 43 U.S.C.392a). WAPA also notes that its current tariff specifically provides that WAPA cannot pay interest on any funds advanced by interconnection customers. *Id.* (citing WAPA, WAPA Open Access Transmission Tariff, section 17.3 (1.0.0)).

²³²³ *Id.* at 13–14.

²³²⁴ Tri-State Initial Comments at 33.

²³²⁵ *Id.*, app. B at 133.

²³²⁶ PacifiCorp Initial Comments at 37.

²³²⁷ PPL Initial Comments at 20.

²³²⁸ Tri-State Initial Comments at 33–34.

²³²⁹ Southern Initial Comments at 19.

²³³⁰ MISO Initial Comments at 97.

²³¹³ Duke Southeast Utilities Initial Comments at 24–25; North Carolina Commission and Staff Initial Comments at 21.

²³¹⁴ Duke Southeast Utilities Initial Comments at 24–25.

²³¹⁵ *Id.* at 25; Duke Southeast Utilities Reply Comments at 23.

²³¹⁶ Duke Southeast Utilities Initial Comments at 25.

²³¹⁷ Invenergy Reply Comments at 12.

²³¹⁸ *Id.* (citing Order No. 2003, 104 FERC ¶ 61,103 at PP 695–696).

²³¹⁹ North Carolina Commission and Staff Initial Comments at 21–22.

(2) Requests for Clarification

1229. Southern explains that the *pro forma* LGIA and Commission policy require that interconnection customers pay for the cost of system protection facilities, and Southern requests that the Commission clarify that it is not changing this policy.²³³¹

(3) Miscellaneous

1230. Eversource states that the concerns of interconnection customers and transmission providers with regard to ISO-NE's related facilities agreement (RFA)²³³² are not addressed by the NOPR proposal, which address coordination between different tariffs and system operators, and requests that the Commission clarify this difference.²³³³

(c) Commission Determination

1231. We adopt, with modifications, the NOPR proposal to establish a *pro forma* affected system facilities construction agreement in Appendix 11 of the *pro forma* LGIP.²³³⁴ The *pro forma* affected system facilities construction agreement, as adopted herein, closely tracks the NOPR proposal: the affected system transmission provider and the affected system interconnection customer(s) will enter into the agreement; and the agreement will set forth the terms and conditions by which the affected system transmission provider will be responsible for the design, procurement, construction, and installation of all network upgrades and terms and conditions by which the affected system interconnection customer will initially fund, and be reimbursed for, the cost of any assigned affected system network upgrades. As described below, we modify the following proposed articles in the *pro forma* affected system facilities construction agreement: (1) article 2.2.2 (Termination Upon Default); (2) article 2.2.3 (Consequences of Termination); (3) article 3.1.1 (Transmission Provider Obligations); (4) article 3.1.2.1 (Right to Suspend); (5) article 3.1.2.3 (Right to Suspend Due to Default); (6) article 5.1 (Events of Breach); (7) article 5.2 (Notice of Breach, Cure and Default); (8) article 5.2.1; and (9) article 5.2.2.²³³⁵ Additionally, we

establish a *pro forma* multiparty affected system facilities construction agreement set forth in Appendix 12 of the *pro forma* LGIP.

1232. We find that a *pro forma* affected system facilities construction agreement will improve the efficiency of the interconnection process by reducing delays through improved coordination among relevant parties, consistent with the Commission's preliminary findings in the NOPR and with record support.²³³⁶ As Duke Southeast Utilities explains, the adoption of a *pro forma* affected system facilities construction agreement will offer uniformity of these types of agreements to be tendered by affected system transmission providers across the country.²³³⁷ Such uniformity will help reduce the potential for undue discrimination. As the Commission found in Order No. 2003, a standard set of procedures as part of the tariff for all jurisdictional transmission facilities will minimize opportunities for undue discrimination.²³³⁸

1233. We also adopt a *pro forma* multiparty affected system facilities construction agreement.²³³⁹ Similar to adopting the *pro forma* multiparty affected system study agreement, as discussed earlier, we find that the adoption of the *pro forma* multiparty affected system facilities construction agreement will further improve coordination and further minimize opportunities for undue discrimination, even relative to a two-party agreement. Also, similar to the adoption of the *pro forma* affected system study agreement, the establishment of the *pro forma* multiparty affected system facilities construction agreement aligns with the requirement to study affected system interconnection requests in clusters. Specifically, such a multiparty agreement will allow for a common agreement for the affected system transmission provider to enter into with all affected system interconnection customers for the construction of affected system network upgrades identified by the cluster study that are assigned to more than one affected system interconnection customer. Below, in discussing relevant article-

to provide a definition of "breaching party," which changes the numbering for proposed article 5.2 (Notice of Breach, Cure, and Default) to article 5.3 and proposed article 5.3 (Rights in the Event of Default) to article 5.4.

²³³⁶ NOPR, 179 FERC ¶ 61,194 at P 200; *see also* Ameren Initial Comments at 23; Duke Southeast Utilities Initial Comments at 18; Pine Gate Initial Comments at 42; SPP Initial Comments at 19–20.

²³³⁷ Duke Southeast Utilities Initial Comments at 18.

²³³⁸ Order No. 2003, 104 FERC ¶ 61,103 at P 11.

²³³⁹ PPL Initial Comments at 20; SPP Initial Comments at 19–20.

specific comments, we discuss noteworthy, additional changes needed to convert the *pro forma* affected system facilities construction agreement from a two-party agreement to a multiparty agreement.

1234. As with the *pro forma* multiparty affected system study agreement, discussed above, the *pro forma* multiparty affected system facilities construction agreement that we adopt in this final rule closely follows the two-party agreement, with changes needed to convert to a multiparty agreement. In article 2.2.2 (Termination Upon Default), we establish that the default by one affected system interconnection customer does not allow the non-defaulting affected system interconnection customer(s) the right to terminate the agreement and that, instead, the defaulting party may be removed from the agreement by the affected system transmission provider. In article 3.1.2.1 (Right to Suspend), we maintain the affected system interconnection customer's right to suspend but only upon the mutual agreement of all affected system interconnection customers that are party to the multiparty agreement. In article 5.3 (Notice of Breach, Cure, and Default), we establish multiparty cure procedures whereby the non-breaching parties may cure the other affected system interconnection customer's breach.

1235. We decline to make changes to the proposed *pro forma* affected system facilities construction agreement and conforming changes to the *pro forma* LGIP, aligning with Xcel's suggestion that the "affected system transmission provider" should be renamed an "affected system operator." Instead, we clarify that the *pro forma* LGIP is written for a specific transmission provider. When a transmission provider is fulfilling its obligations as a host transmission provider, the *pro forma* LGIP refers to the host transmission provider's interaction with the "affected system operator." However, when the *pro forma* LGIP references a transmission provider and its obligations as the operator of an affected system, we use the term "transmission provider," as the *pro forma* LGIP is setting the requirements of the transmission provider, whether acting as the host or affected system transmission provider, and that is a different perspective from a host transmission provider's interaction with a separate "affected system operator."

1236. In response to Tri-State's suggestion to revise proposed article 2 of the *pro forma* affected system facilities construction agreement to

²³³¹ Southern Initial Comments at 17; Southern Reply Comments at 8 (citing *pro forma* LGIA art. 9.7.4.1; Order No. 845, 163 FERC ¶ 61,043 at P 371).

²³³² ISO-NE's RFA is an intra-RTO/ISO agreement with a specific transmission owner.

²³³³ Eversource Initial Comments at 32.

²³³⁴ NOPR, 179 FERC ¶ 61,194 at P 197.

²³³⁵ We further note that we streamline article 6.2 (Termination and Removal) of the *pro forma* affected system facilities construction agreement with ministerial revisions, as well as add article 5.2

clarify that the execution of an LGIA does not convey transmission service, we decline to adopt this request, as it is unnecessary.²³⁴⁰ However, we accept Tri-State's suggested revisions to article 3.1.1 of the *pro forma* affected system facilities construction agreement to clarify that the affected system transmission provider shall not undertake any actions inconsistent with its safety practices, material and equipment specifications, design criteria and construction procedures, labor agreements, or any applicable laws and regulations.

1237. We modify proposed articles 2.2.2 and 5.2 (now articles 2.2.2 and 5.3) of the *pro forma* affected system facilities construction agreement in response to comments from Southern and Tri-State regarding termination and cure. Proposed article 2.2.2 establishes that a non-breaching party has the right to terminate the *pro forma* affected system facilities construction agreement, provided that termination does not pose a reliability threat and that the breaching party has not undertaken efforts to cure the breach, pursuant to article 5.3 (Notice of Breach, Cure and Default). However, consistent with comments from Southern,²³⁴¹ we agree that termination and default rights in the *pro forma* affected system facilities construction agreement should be consistent with the *pro forma* LGIA. Accordingly, as adopted, we modify articles 2.2.2 and 5.2 (now articles 2.2.2 and 5.3) of the *pro forma* affected system facilities construction agreement to make them consistent with the existing default provisions in article 17 of the *pro forma* LGIA (Default), which also establishes default and cure provisions in the event of a breach.

1238. We also modify proposed article 2.2.3 (Consequences of Termination) of the *pro forma* affected system facilities construction agreement in response to comments from Tri-State and Invenery suggesting that it would require affected system interconnection customers to be responsible for the costs of additional facilities that are caused by another interconnection customer terminating

its affected system facilities construction agreement or that interconnection customer's LGIA.²³⁴² Specifically, we remove the final sentence from proposed article 2.2.3 that an "affected system interconnection customer is responsible for the cost of additional facilities that is caused to another interconnection customer due to the termination of this Agreement, affected system interconnection customer's LGIA, or any affected system interconnection customer's other Affected System Facilities Construction Agreement(s)." We find that deletion of this sentence is needed because the affected system interconnection customer should not be responsible for any additional facilities that are assigned to another interconnection customer under these circumstances. As written, the provision implies that an affected system interconnection customer could be responsible for any network upgrade identified as a result of the agreement's termination, even if the newly assigned network upgrade is on a different transmission provider's transmission system than the transmission provider that is a signatory to the terminated agreement. Additionally, we note that the *pro forma* LGIA contains no similar requirement that upon termination of an LGIA that the interconnection customer is responsible for any additional costs assigned to another interconnection customer as a result of the LGIA's termination and based on the comments received, the record does not support including the provision.

1239. MISO requests a cross-default provision between the *pro forma* affected system facilities construction agreement and the *pro forma* LGIA because MISO asserts that, if an affected system interconnection customer does not meet its obligations under its affected system facilities construction agreement, it is unclear how that would affect that interconnection customer's LGIA on its host transmission system.²³⁴³ In response, we clarify that a breach under the *pro forma* affected system facilities construction agreement does not constitute a breach under the *pro forma* LGIA. We are unpersuaded that cross-default provisions between the *pro forma* affected system facilities construction agreement and the *pro forma* LGIA are necessary because both the *pro forma* affected system facilities construction agreement and the *pro*

forma LGIA individually already contain default provisions.

1240. In addition, we are concerned that a cross-default provision, which could result in the termination of an interconnection customer's interconnection service based on actions under a separate agreement, could raise contractual complications because the host transmission provider will not be a party to the affected system facilities construction agreement. We note, however, that any affected system interconnection customer that defaults on its obligations under the *pro forma* affected system facilities construction agreement may face consequences, including, for example, curtailment. Additionally, we find that article 4.1 of the *pro forma* affected system facilities construction agreement already contains sufficient security provisions to protect a transmission provider in the situation that the affected system interconnection customer defaults on the agreement and which discourages non-payment by the interconnection customer.

1241. We modify proposed article 3.1.2.1 (Right to Suspend for *Force Majeure* Event) of the *pro forma* affected system facilities construction agreement in response to comments that the proposed suspension provision is too restrictive and inconsistent with the suspension provision in the *pro forma* LGIA.²³⁴⁴ Specifically, we revise article 3.1.2.1 to remove the limitation on the right to suspend to *force majeure* events and modify the suspension provision to allow an affected system interconnection customer to suspend work required under the affected system facilities construction agreement for up to three years.²³⁴⁵ We also modify article 3.1.2.1 to remove the requirement for the affected system interconnection customer, prior to suspension, to provide security to the affected system transmission provider of the higher of \$5 million or the total cost of all affected system network upgrades listed in Appendix A of the agreement. We find the requirement unnecessary because, under article 4.1 (Provision of Security) of the *pro forma* affected system facilities construction agreement, the affected system interconnection customer would have already been required to provide security for the applicable portion of the affected system network upgrades. With these changes to article 3.1.2.1, the suspension provision in the *pro forma* affected

²³⁴⁰ See Order No. 2003, 104 FERC ¶ 61,103 at P 118 (stating that "[t]he Commission continues to treat interconnection and delivery as separate aspects of transmission service, and an Interconnection Customer may request Interconnection Service separately from transmission service (delivery of the Generating Facility's power output)"); Order No. 2003-A, 106 FERC ¶ 61,220 at P 113 ("reiterat[ing] that Interconnection Service is separate from the delivery component of Transmission Service and that the mere interconnection of the Generating Facility is unlikely to harm reliability on Affected Systems").

²³⁴¹ Southern Initial Comments at 18.

²³⁴² Invenery Initial Comments at 45; Tri-State Initial Comments at 20.

²³⁴³ MISO Initial Comments at 97.

²³⁴⁴ *Pro forma* LGIA art. 5.16.

²³⁴⁵ We also make various conforming revisions throughout proposed article 3.1.2.1 of the *pro forma* affected system facilities construction agreement, consistent with this modification to the suspension provision.

system facilities construction agreement will mirror the suspension provision in the *pro forma* LGIA.²³⁴⁶

1242. Additionally, we revise proposed article 3.1.2.3 (Right to Suspend Due to Default) of the *pro forma* affected system facilities construction agreement, which provides for the right to suspend due to default. The revisions we adopt to this provision clarify that if an affected system interconnection customer defaults, the affected system interconnection customer will be responsible for any additional expenses incurred by the affected system transmission provider associated with the construction and installation of the affected system network upgrades, as set forth in article 2.2.3 (Consequences of Termination). We find that the revisions will align the language in the *pro forma* affected system facilities construction agreement with similar language in the *pro forma* LGIP, as suggested by PacifiCorp.²³⁴⁷ However, we reject the proposed revisions suggested by Tri-State to article 3.1.2.3 because they would alter the right to suspend to allow an affected system transmission provider the right to suspend in the event of a breach, rather than in the event of a default. Tri-State's suggested changes to article 3.1.2.3 would contradict other provisions in the *pro forma* LGIA and the *pro forma* affected system facilities construction agreement, which allow for the breaching party to cure a breach as is appropriate.

1243. We adopt article 3.2.2.1 (Repayment) of the *pro forma* affected system facilities construction agreement as proposed, which is consistent with existing Commission precedent.²³⁴⁸

1244. Some commenters are concerned that affected systems repayment could force affected system transmission providers to subsidize interconnection to neighboring systems, stifle renewable generating facility development, or facilitate inefficient siting.²³⁴⁹ However, in the NOPR, the

Commission did not propose to change the Commission's affected system repayment policy; instead, the Commission simply proposed to memorialize the Commission's existing policy in a *pro forma* agreement for affected systems.²³⁵⁰ As a result, we decline to address arguments on the merits of the Commission's affected systems repayment policy in this final rule.

1245. With respect to the concerns raised by WAPA that it is unable to repay affected system interconnection customers due to limitations based on its Federal status, we decline to rule on the specifics of individual transmission provider circumstances and instead find that such concerns are better raised in a compliance proceeding, including such a proceeding with a reciprocity tariff filing, if WAPA chooses to file one.

1246. In response to requests for clarification from Southern, we clarify that, consistent with the Commission's findings in Order No. 2003, we are not changing our policy requiring the interconnection customer, at its expense, to install, operate, and maintain system protection facilities as a part of its generating facility or its interconnection facilities.²³⁵¹ Also in response to Southern and consistent with the Commission's findings in Order No. 2003, transmission providers may make a filing to the Commission proposing an incremental rate to the affected system interconnection customer, as more fully described in Order Nos. 2003–A and 2003–B,²³⁵² if native load and existing transmission customers are not being held harmless, though we reiterate that the transmission provider bears the full burden of showing that any such proposal is just, reasonable, and not unduly discriminatory or preferential and is appropriate under the circumstances.²³⁵³

1247. We adopt Tri-State's suggested revisions to proposed article 3.2.2.1 of the *pro forma* affected system facilities construction agreement regarding the terms for repayment of affected system network upgrades. Consistent with existing *pro forma* LGIA provisions,²³⁵⁴ the parties may mutually agree to a

repayment schedule for all applicable costs associated with affected system network upgrades, with complete repayment not to exceed 20 years from the commercial operation date of the affected system interconnection customer's generating facility.

1248. We decline to adopt additions to proposed article 4.1 (Provision of Security) of the *pro forma* affected system facilities construction agreement suggested by PacifiCorp that would add additional security posting requirements, to the extent that costs to construct affected system network upgrades increase.²³⁵⁵ Proposed article 4.1 is consistent with security provisions outlined in *pro forma* LGIA article 11.5 (Provision of Security), and we find that such provisions should be consistent across both the *pro forma* affected system facilities construction agreement and the *pro forma* LGIA. We also find that the security provision requirements are already sufficiently clear in article 4.1 of the *pro forma* affected system facilities construction agreement. Specifically, article 4.1 of the *pro forma* affected system facilities construction agreement provides that “security for payment shall be in an amount sufficient to cover the costs for constructing, procuring and installing the applicable portion of Affected System Network Upgrades.”

1249. In response to comments from PPL asserting that affected system interconnection customers should be responsible for meeting the affected system transmission provider's creditworthiness requirements,²³⁵⁶ because the *pro forma* affected system facilities construction agreement is an agreement between the affected system transmission provider and the affected system interconnection customer, we clarify that affected system interconnection customers are obligated to meet the affected system transmission provider's creditworthiness and security requirements. We note that this is consistent with the parallel requirement for interconnection customers to meet the creditworthiness and security requirements of the host transmission provider outlined in *pro forma* LGIA article 11.5.1.

1250. We revise proposed article 5.1(b) of the *pro forma* affected system facilities construction agreement, consistent with PacifiCorp's suggestion, to remove the requirement that a party will be in breach for failure to comply with a material term or condition of the agreement due to an inaccuracy in a representation, warranty, or covenant

²³⁴⁶ *Pro forma* LGIA art. 5.16.

²³⁴⁷ PacifiCorp Initial Comments, attach. A, at 54.

²³⁴⁸ Order No. 2003, 104 FERC ¶ 61,103 at PP 693–696, 720–739; Order No. 2003–A, 106 FERC ¶ 61,220 at PP 584–586 (stating that the transmission system is a cohesive, integrated network that operates as a single piece of equipment, and that network facilities benefit all transmission customers; further, even if a customer can be said to have caused the addition of a grid facility, such addition represents a system expansion used by and benefiting all users due to the integrated nature of the grid); Order No. 2003–C, 111 FERC ¶ 61,401 at P 13; *NARUC v. FERC*, 475 F.3d 1277, 1285 (D.C. Cir. 2007) (affirming the Commission's conclusions); *W. Mass. Elec. Co. v. FERC*, 165 F.3d 922, 927 (D.C. Cir. 1999).

²³⁴⁹ AECI Initial Comments at 9; Duke Southeast Utilities Initial Comments at 21–22, 26; EEI Initial

Comments at 18–19; North Carolina Commission and Staff Initial Comments at 6; PPL Initial Comments at 21; Tri-State Initial Comments at 21–22; U.S. Chamber of Commerce Initial Comments at 11–12; Xcel Initial Comments at 40.

²³⁵⁰ See Order No. 2003, 104 FERC ¶ 61,103 at PP 738–739; see also *pro forma* LGIA art. 11.4.

²³⁵¹ *Pro forma* LGIA art. 9.7.4.1; see also Order No. 845, 163 FERC ¶ 61,043 at P 371.

²³⁵² Order No. 2003–A, 106 FERC ¶ 61,220 at P 586; Order No. 2003–B, 109 FERC ¶ 61,287 at P 56.

²³⁵³ Order No. 2003–B, 109 FERC ¶ 61,287 at P 56.

²³⁵⁴ *Pro forma* LGIA art. 11.4.1.

²³⁵⁵ PacifiCorp Initial Comments at 37.

²³⁵⁶ PPL Initial Comments at 20.

made in the agreement resulting in a breach under the agreement. We find that there is no reason why an inaccuracy should lead to a potential breach, or even a default, under the agreement. We note that the *pro forma* LGIA contains no similar provision.

1251. We revise proposed article 5.2.1, now article 5.3.1, of the *pro forma* affected system facilities construction agreement to extend the cure period for a breach from 30 calendar days to 60 calendar days and proposed article 5.2.2, now article 5.3.2, of the *pro forma* affected system facilities construction agreement to remove the additional cure period if the breach remains despite the occurrence of good faith steps. We find that the revision will simplify the cure requirements while providing breaching party with an extra 30 calendar days at the onset to cure its breach. We also revise article 5.3.2 to include a reference that if the breaching party defaults, then the non-defaulting party may terminate the agreement in accordance with article 6.2 (Termination) of the agreement. We further clarify article 5 of both the *pro forma* affected system facilities construction agreement and the *pro forma* multiparty affected system facilities construction agreement that a failure to cure a breach of either agreement will also constitute a default.

1252. We decline to delete proposed article 6.4 (Survival of Rights) of the *pro forma* affected system facilities construction agreement, as suggested by Tri-State. Although Tri-State asserts that proposed article 6.4 should be deleted because it is duplicative of proposed article 2.4 (Survival),²³⁵⁷ we find that the contents are sufficiently different to merit their separate inclusion. Specifically, article 2.4 provides for the survival of the *pro forma* affected system facilities construction agreement until all liabilities incurred prior to termination are fulfilled, whereas article 6.4 clarifies the scope of the rights of parties following termination to provide for final billing, enforcement of liabilities and confidentiality obligations, and for potential judicial or administrative action.

1253. In response to comments from Southern regarding updates to the confidentiality provisions contained in proposed article 8 (Confidentiality) of the *pro forma* affected system facilities construction agreement,²³⁵⁸ we find that, because we are not proposing to revise the confidentiality provision set forth in the *pro forma* LGIA—instead, we are merely adopting it into the *pro forma* affected system facilities

construction agreement—article 8, as adopted, is just and reasonable. Contrary to Southern's comments, the confidentiality provisions in article 8.1.7 of the *pro forma* affected system facilities construction agreement allow for confidential information to be destroyed, erased, deleted or, as applicable, returned, not for such information to exclusively be “destroyed or returned.”²³⁵⁹ Thus, such language reflects the fact that most electronic information is stored in backup servers. Moreover, in response to Southern's concern that deleting information stored on backup servers is administratively difficult, we find that Southern has not provided any evidence or explained why this might be so.

1254. In response to MISO's contention that there is no need to list a commercial operation date for affected system network upgrades in Appendix A of the *pro forma* affected system facilities construction agreement,²³⁶⁰ we agree and modify Appendix A, now Attachment A, to remove the commercial operation date from tables 1 and 3. However, we note that parties may find it useful to memorialize the commercial operation date for the affected system interconnection customer's generating facility because, under article 2.2.1 of the *pro forma* affected system facilities construction agreement, the parties to the agreement may alter the affected system facilities construction agreement by mutual consent if the in-service state date for the affected system network upgrades or the commercial operation date for the generating facility changes. To the extent MISO is concerned that there could be different commercial operation dates listed for affected system network upgrades in the LGIA and the affected system facilities construction agreement, the host transmission provider must update the commercial operation date for affected system network upgrades in the affected system interconnection customer's LGIA with the host system, to avoid discrepancies between the affected system facilities construction agreement and the LGIA.

1255. Finally, in response to comments from Eversource and ISO-NE,²³⁶¹ we clarify that these *pro forma* affected system agreements are distinct from intra-RTO/ISO agreements, like ISO-NE's RFA, which RTOs/ISOs may use to coordinate the construction of necessary network upgrades within

multiple transmission owner service territories within the same RTO/ISO.²³⁶²

d. Affected System Modeling and Study Assumptions

i. NOPR Proposal

1256. As the Commission explained in the NOPR, when an interconnection customer submits an interconnection request, they must choose to be studied as ERIS or NRIS, depending on the level of deliverability they seek for the output of their generating facility. For interconnection customers seeking to deliver their generating facility's electric output using the existing firm or non-firm capacity of the transmission provider's system on an as-available basis, the interconnection customer will choose an ERIS study. An interconnection customer will choose an NRIS study when seeking to integrate their generating facility with the transmission provider's system (1) in a manner comparable to that in which the transmission provider integrates its generating facilities to serve native load customers or (2) in an RTO/ISO with market-based congestion management, in the same manner as network resources.²³⁶³ An NRIS study goes beyond the prerequisite ERIS study and uses stricter modeling standards²³⁶⁴ to assess an interconnection request to ensure that the interconnection customer's electric output is deliverable to load in aggregate on the host

²³⁶² Eversource Initial Comments at 31–32.

²³⁶³ “Network Resource shall mean any designated generating resource owned, purchased, or leased by a Network Customer under the Network Integration Transmission Service Tariff. Network Resources do not include any resource, or any portion thereof, that is committed for sale to third parties or otherwise cannot be called upon to meet the Network Customer's Network Load on a non-interruptible basis.” *Pro forma* LGIP section 1; *pro forma* LGIA art. 1.

²³⁶⁴ NOPR, 179 FERC ¶ 61,194 at P 210. The term “modeling standard” refers to the distribution factor threshold on a transmission element used by transmission providers, such that beyond this threshold an interconnection request will require network upgrades. For example, in SPP, if a transmission element is found to be overloaded in an interconnection study, and an NRIS interconnection request has over a 3% distribution factor on that element (3% being SPP's distribution factor threshold for NRIS requests), the requesting entity will be assigned network upgrades. SPP uses a 19.5% distribution factor threshold for ERIS requests. See *EDF Renewable Energy, Inc. v. Midcontinent Indep. Sys. Operator, Inc.*, 168 FERC ¶ 61,173 at P 17. A lower threshold indicates a stricter modeling standard because a smaller impact triggers network upgrades. Additionally, when conducting an affected system analysis, although some RTOs/ISOs (PJM and SPP, for example) use a modeling standard associated with the same level of service as requested on the host transmission provider's transmission system, the output of proposed generating facilities is always sunk into the host transmission provider's transmission system by reducing the output of other generating facilities on that system. *Id.* P 85.

²³⁵⁹ *Id.*

²³⁶⁰ MISO Initial Comments at 97.

²³⁶¹ Eversource Initial Comments at 32; ISO-NE Initial Comments at 38.

²³⁵⁷ Tri-State Initial Comments at 34.

²³⁵⁸ Southern Initial Comments at 19.

transmission provider's system.²³⁶⁵ Such a deliverability analysis varies regionally but can analyze anything from various stressed dispatch scenarios to an additional set of contingencies. As such, an NRIS study will likely identify more network upgrades to accommodate the interconnection of a generating facility than an ERIS study because NRIS provides a higher level of interconnection service than ERIS.

1257. As the Commission also explained in the NOPR, when a host transmission provider notifies an affected system operator of a possible impact on its system from an interconnection request in the host's queue, it must specify whether the interconnection customer requested ERIS or NRIS. Currently, there is no requirement for affected system transmission providers to apply either ERIS or NRIS modeling standards to study interconnection requests made on neighboring systems. For example, MISO uses ERIS studies for all affected system interconnection requests, while PJM and SPP use the modeling standard associated with the level of service requested on the host system. (They study ERIS requests as ERIS and NRIS requests as NRIS.)²³⁶⁶

1258. In the NOPR, the Commission preliminarily found that it was unjust and unreasonable for an affected system transmission provider to study interconnection requests on other transmission systems using NRIS modeling standards, regardless of the level of service requested on the host transmission system. The Commission noted that, unlike the host transmission provider with which the affected system interconnection customer will directly interconnect, an affected system transmission provider does not have a continuing obligation to operate its system so that NRIS resources will remain deliverable on the host system. Without such an obligation, the Commission stated that an affected system interconnection customer may be required to construct significant network upgrades on the transmission provider's affected system, but not be fully deliverable due to curtailment or congestion on the affected system. The

Commission was concerned that this could result in unjust and unreasonable rates by increasing the costs for the interconnection customer without a commensurate increase in service.

1259. The Commission proposed to require, under new *pro forma* LGIP section 9.6,²³⁶⁷ the affected system transmission provider to study interconnection requests using ERIS modeling standards, regardless of the requested level of service on the host transmission provider's transmission system.²³⁶⁸

1260. The Commission also explained that if an affected system transmission provider believed that it was necessary to study an interconnection request that is requesting NRIS-level service using NRIS modeling standards, such a transmission provider could make a filing under FPA section 205. The Commission explained that it would evaluate such case-by-case FPA section 205 filings to determine whether they were just, reasonable, and not unduly discriminatory or preferential.²³⁶⁹ The Commission noted that an affected system transmission provider making this type of filing should provide evidence indicating that using NRIS modeling standards in such a scenario would not treat similarly situated customers differently or afford similar treatment to dissimilar customers. In addition, this FPA section 205 filing could contain, for example, such supporting documentation as a reference to a NERC Reliability Standard violation, an operational concern such as over-duty breakers, fault current violations, impacts on transmission stability, increased loop flows, or other concerns that implicate any other critical reliability parameters.

1261. The Commission stated that a modeling standard would create consistency in the modeling standards used across all transmission regions.²³⁷⁰ The Commission also stated that ERIS modeling standards generally reduce the number and cost of network upgrades identified and, by using ERIS modeling standards, interconnection customers would be subject to fewer late-stage cost increases, which would reduce the number of potential restudies and withdrawals thereby addressing the

concerns that the Commission has preliminarily found to result in unjust, unreasonable, and unduly discriminatory or preferential Commission-jurisdictional rates. The Commission acknowledged that using a less stringent modeling standard may result in more frequent redispatch or curtailment by not fully capturing all the potential impacts of the interconnection generating facility(ies) on an affected system.²³⁷¹ Nevertheless, the Commission stated that it believed that these risks were limited in nature and any significant impact would be captured by an ERIS study, which would ensure that a proposed generating facility can safely connect the affected system under the expectation it will deliver its electric output using the existing firm or non-firm capacity of the affected system transmission provider's system on an as-available basis.

1262. The Commission sought comment on: (1) how to align the possibility for such case-by-case FPA section 205 filings with the required timeline for the affected system study and other deadlines proposed in the NOPR; (2) whether the proposed reform will adversely affect reliability for the affected system transmission provider or the host transmission provider; (3) the potential impact of requiring affected system transmission providers to use ERIS modeling standards when an interconnection customer seeks NRIS on the host transmission provider's system; and (4) whether there are modifications to this proposal that would reduce the likelihood of curtailment or redispatch on the affected system transmission provider's system without requiring the affected system interconnection customer to pay network upgrade costs that are not commensurate with the level of service it receives.²³⁷²

ii. Comments

(a) Comments in Support

1263. Numerous commenters support the NOPR proposal.²³⁷³ ELCON suggests that standardization of affected system modeling and assumptions furthers certainty and accountability, resulting

²³⁷¹ *Id.* P 213.

²³⁷² *Id.* PP 211, 213, 215.

²³⁷³ ACE-NY Initial Comments at 9; AES Initial Comments at 21; Alliant Energy Initial Comments at 7; Clean Energy Associations Initial Comments at 48; Clean Energy Associations Reply Comments at 12; ELCON Initial Comments at 8; Enel Initial Comments at 67–68; Fervo Energy Initial Comments at 6; Invenergy Initial Comments at 44; MISO Initial Comments at 98; NextEra Initial Comments at 34; OMS Initial Comments at 17; Pattern Energy Initial Comments at 26; Pine Gate Initial Comments at 42; Shell Initial Comments at 31–32; UMPA Initial Comments at 6.

²³⁶⁵ See Order No. 2003, 104 FERC ¶ 61,103 at P 768; Order No. 2003–A, 106 FERC ¶ 61,220 at P 500. Specifically, a transmission provider studying generating facility for NRIS would study the transmission system at peak load, under a variety of severely stressed conditions to determine whether, with the generating facility operating at full output, the aggregate of generation in the local area can be delivered to the aggregate of load, consistent with reliability criteria and procedures.

²³⁶⁶ *EDF Renewable Energy, Inc. v. Midcontinent Indep. Sys. Operator, Inc.*, 168 FERC ¶ 61,173 at PP 75–76.

²³⁶⁷ We note that under the NOPR proposal, this reform was in *pro forma* LGIP section 9.6; however, under the final rule, the reform is in *pro forma* LGIP section 9.7.

²³⁶⁸ NOPR, 179 FERC ¶ 61,194 at P 211.

²³⁶⁹ 16 U.S.C. 824d.

²³⁷⁰ The Commission noted that, while this proposal would standardize the use of ERIS for affected system studies, individual transmission providers use different specific thresholds for ERIS studies. NOPR, 179 FERC ¶ 61,194 at P 212 n.292.

in a more transparent, efficient, and cost-effective interconnection process.²³⁷⁴ Some commenters argue that the NOPR proposal will reduce the identification and assignment of unnecessary affected system network upgrades under NRIS studies.²³⁷⁵ MISO and Shell contend that ERIIS modeling will adequately cover reliability for affected systems and that they have no significant concerns regarding unnecessary curtailment or redispatch on affected systems associated with ERIIS modeling.²³⁷⁶ Additionally, commenters contend that there is no need to use NRIS modeling standards when the affected system interconnection customer requests NRIS-level service on the host system because the generating facility's output will not be delivered to the affected system, and the NRIS standard serves the exclusive purpose of allowing interconnection customers to be designated as a network resource on the host system.²³⁷⁷ Some commenters claim that the NOPR proposal will reduce the time required to conduct affected system study and construction processes, as well as the likelihood of withdrawals once the affected system necessary upgrades are identified.²³⁷⁸

(b) Comments in Opposition

1264. Some commenters oppose the NOPR proposal.²³⁷⁹ AECI claims that, without increasing the granularity of the redispatch and curtailment process in real time to better understand the actual impact an affected system interconnection customer has on the affected system from a distribution factor standpoint, the NOPR proposal would produce disproportionate burdens by reducing otherwise economical and reliable generating facilities to accommodate resources that are outside an affected system transmission provider's control.²³⁸⁰ Idaho Power asserts that the NOPR proposal may not sufficiently capture

network upgrades that are jointly owned by multiple entities.²³⁸¹ Specifically, Idaho Power states that the host transmission provider "may not be the entity responsible for designing and constructing network upgrades and interconnection facilities; therefore, the affected party ERIIS study may not provide sufficient details to be meaningful."²³⁸²

1265. Several commenters claim that the ERIIS modeling requirement for affected systems will negatively impact reliability.²³⁸³ AECI argues that incentivizing ERIIS-only studies would fundamentally affect reliability by failing to address systemic *de minimis* issues that become material in the aggregate.²³⁸⁴ Some commenters contend that, under the NOPR proposal, reliability issues will not arise until the operational time horizon, which could, as an example, result in an increase in transmission loading relief events and redispatch of network resources and native load.²³⁸⁵ LADWP asserts that the dispatching assumptions of an interconnection request can make a significant difference to flow patterns in the host system, and parallel paths will inherently absorb the unscheduled flow intended for the host system.²³⁸⁶ LADWP contends that, as the number of interconnection requests continues to grow, these unscheduled flows will continue to increase and begin to affect systems downstream of the affected system, rather than just the local transmission system that the ERIIS modeling standard is designed to evaluate. LADWP claims that the NOPR proposal would result in approval of generating facilities without identification of sufficient network upgrades to accommodate requested interconnection service, and affected system transmission providers would be responsible for maintaining reliability by developing operating procedures, capital projects, or performing curtailments from the additional stress of energy that is not being delivered to the affected system.

1266. AEP, SPP, and Xcel express concern that the proposed ERIIS modeling standard may harm firm transmission service on the affected

system.²³⁸⁷ AEP, NRECA, and Xcel argue that affected system transmission providers should be able to use NRIS in affected system studies if the affected system interconnection customer is requesting NRIS-level service on the host transmission system to ensure the required level of deliverability.²³⁸⁸ AEP states that, in the case that the interconnection customer is requesting to interconnect to a different RTO/ISO or is in a non-RTO/ISO, then an ERIIS-only modeling standard could result in the failure to construct affected system network upgrades to mitigate congestion and/or loop flow once the new generating facility commences operation, impacting loads that secured and paid for firm transmission service and/or NRIS.²³⁸⁹

1267. SPP is concerned that, if an affected system interconnection customer requests NRIS-level service on the host transmission system that grants deliverability rights without additional study procedures, an affected system may be exposed to impacts that it has not had an opportunity to evaluate under an ERIIS modeling standard.²³⁹⁰ As an example, SPP explains that SPP and MISO treat what constitutes firm transmission service differently, but SPP's current ability to conduct affected system studies under NRIS when the interconnection customer has requested NRIS on the host system allows for that difference. In response to SPP's concerns, NextEra argues that this issue appears to be a problem of SPP's own making based on how SPP implemented ERIIS and NRIS on its own system and ignores that affected system interconnection customers are not seeking deliverability or to be deemed firm on SPP's transmission system through any sort of transmission service from SPP.²³⁹¹

1268. Some commenters note that the proposal may not work in all scenarios.²³⁹² For instance, Clean Energy Associations state that this proposal may not be appropriate for non-RTO/ISO regions, if these impacts are not addressed through a coordinated transmission service study.²³⁹³ Xcel believes that the use of ERIIS modeling standards for affected system studies

²³⁷⁴ ELCON Initial Comments at 8.

²³⁷⁵ Fervo Energy Initial Comments at 6; UMPA Initial Comments at 6.

²³⁷⁶ MISO Initial Comments at 98; Shell Initial Comments at 33.

²³⁷⁷ Fervo Energy Initial Comments at 6; Interwest Reply Comments at 18; Invenenergy Initial Comments at 44; NextEra Initial Comments at 34; NextEra Reply Comments at 6; OMS Initial Comments at 17.

²³⁷⁸ OMS Initial Comments at 17; Pine Gate Initial Comments at 42; Public Interest Organizations Initial Comments at 51.

²³⁷⁹ AECI Initial Comments at 7; AEP Initial Comments at 34; Ameren Initial Comments at 23–24; Duke Southeast Utilities Initial Comments at 28; EEI Initial Comments at 19; Illinois Commission Initial Comments at 9; LADWP Initial Comments at 5; NRECA Initial Comments at 39; Southern Initial Comments at 4, 16; SPP Initial Comments at 20.

²³⁸⁰ AECI Initial Comments at 7.

²³⁸¹ Idaho Power Initial Comments at 12.

²³⁸² *Id.*

²³⁸³ AECI Initial Comments at 7; Illinois Commission Initial Comments at 9; Southern Initial Comments at 16–17.

²³⁸⁴ AECI Initial Comments at 7.

²³⁸⁵ Ameren Initial Comments at 24; LADWP Initial Comments at 5; PJM Reply Comments at 10; Southern Initial Comments at 16–17.

²³⁸⁶ LADWP Initial Comments at 5.

²³⁸⁷ AEP Initial Comments at 34; SPP Initial Comments at 20; Xcel Initial Comments at 43.

²³⁸⁸ AEP Initial Comments at 34; NRECA Initial Comments at 39; SPP Initial Comments at 20–21; Xcel Initial Comments at 43.

²³⁸⁹ AEP Initial Comments at 34.

²³⁹⁰ SPP Initial Comments at 20–21.

²³⁹¹ NextEra Reply Comments at 6–7.

²³⁹² AEP Initial Comments at 34; Clean Energy Associations Initial Comments at 48; SPP Initial Comments at 21–22; Xcel Initial Comments at 43.

²³⁹³ Clean Energy Associations Initial Comments at 48.

may be appropriate under a joint operating agreement or in areas where the impact may be evaluated and mitigated in the transmission service study process, but in other areas, if the impact will not be evaluated in the transmission service study process, it is appropriate for an affected system transmission provider to model the neighbor's NRIS requests based on the expected delivery point.²³⁹⁴

(c) Comments on Specific Proposal

1269. Some commenters ask the Commission to make changes to the NOPR proposal to mitigate the negative impacts they discuss in their comments. For example, some commenters recommend that, in addition to the ERIS modeling standard, the Commission should establish (or allow affected system transmission providers to establish) a distribution factor or impact threshold for affected system studies to ensure that affected system interconnection customers are not assigned unnecessary affected system network upgrades.²³⁹⁵ NextEra recommends that the use of ERIS be included in the *pro forma* affected system study agreement to require any affected system transmission provider proposing to use NRIS rather than ERIS to file such agreement with the Commission on a non-conforming basis.²³⁹⁶

1270. Enel states that a critical interconnection issue not addressed in the NOPR is the lack of clarification of ERIS and NRIS-level service and how the different assumptions used by transmission providers significantly alter results.²³⁹⁷ Enel explains that the wide variety of views on what rights interconnection service grants to an interconnection customer leads to confusion in the development of study practices and requirements, as well as the services and products a generating facility can provide. Enel requests that, in a final rule or a supplemental notice, the Commission should provide concrete direction regarding how these service types should be studied and what outcome an interconnection customer should receive for making the necessary transmission system improvements to obtain that interconnection service. NV Energy requests that affected system transmission providers and host transmission providers coordinate

assumptions for affected system studies and update those assumptions quarterly after the affected system study has been issued to provide meaningful changes.²³⁹⁸

1271. Some commenters note that a final rule should provide host transmission providers with flexibility to work with their neighboring regions to address modeling inconsistencies in transmission system representations across regions.²³⁹⁹

1272. Some commenters specifically support allowing transmission providers to use NRIS modeling standards for affected system studies pursuant to separate FPA section 205 filings, as proposed in the NOPR.²⁴⁰⁰ Duke Southeast Utilities assert that the Commission should remove any negative repercussions, including any financial penalties or liability for breaching deadlines of the study process, for affected system transmission providers that seek to make such FPA section 205 filings.²⁴⁰¹

1273. Several commenters argue that affected system transmission providers should be able to use NRIS when conducting affected system studies without requiring the NOPR's proposed FPA section 205 filing.²⁴⁰² A few commenters argue that the requirement to make an FPA section 205 filing to use NRIS modeling standards will create delays and is overly burdensome on affected system transmission providers.²⁴⁰³ SPP claims that, as proposed in the NOPR, an FPA section 205 filing to use NRIS modeling assumptions would require supporting documentation amounting to evidence that the affected system transmission provider could only obtain if it conducted a study using the standards of the heightened level of service, which it could not do absent the Commission's grant of a waiver to require such a study.²⁴⁰⁴ Invenery argues that the

option for an FPA section 205 request to conduct an affected system study using NRIS criteria invites case-by-case disputes over modeling criteria, potentially delaying the affected system study process. Therefore, Invenery argues that the Commission should clarify that any such filing must be limited to only the facts of an individual interconnection request.²⁴⁰⁵

1274. Xcel states that the Commission should: (1) remove the ERIS option in RTO/ISO markets and require all generating facilities in such markets to be deliverable; (2) curtail generating facilities that did not pay for long-term firm transmission service; or (3) convene a technical conference on this topic in this docket.²⁴⁰⁶ Xcel explains that ERIS-only generating facilities in RTO/ISO markets may place a bid to sell into the market, and the ERIS-only generating facilities will be dispatched to the extent a bid clears, while in other areas, the ERIS-only generating facilities must acquire transmission service to be delivered.²⁴⁰⁷ Xcel concludes that ERIS service in RTO/ISO markets results in unjust and unreasonable rates and discriminatory treatment because ERIS-level generating facilities do not bear the costs necessary to ensure that they are deliverable to load. Xcel claims that: (1) the affected system transmission provider should not have to assume it will redispatch its own network resources to accommodate an affected system interconnection customer taking NRIS-level service; (2) the affected system's network resources paid for and expect to receive firm transmission service; and (3) there is no process for a host transmission provider to require an affected system transmission provider to redispatch its transmission system to accommodate a generating facility on the host system under the *pro forma* tariff.²⁴⁰⁸

1275. NRECA asserts that the final rule should allow a "transmission customer" to propose a different standard through an FPA section 206 complaint.²⁴⁰⁹ NextEra and MISO suggest that, to avoid delays in the interconnection process, any affected system transmission provider submitting an FPA section 205 filing to use NRIS modeling in an affected system study should proceed with the affected system study, using both the ERIS and NRIS standards, and then the appropriate results could be used based on the outcome of the FPA section 205

²³⁹⁴ Xcel Initial Comments at 43–44.

²³⁹⁵ AES Initial Comments at 8, 21; Clean Energy Associations Initial Comments at 48; Enel Initial Comments at 68; Pine Gate Initial Comments at 42; SEIA Initial Comments at 35.

²³⁹⁶ NextEra Initial Comments at 34.

²³⁹⁷ Enel Initial Comments at 26–27.

²³⁹⁸ NV Energy Initial Comments at 12.

²³⁹⁹ Duke Southeast Utilities Initial Comments at 27–28; NYISO Initial Comments at 46.

²⁴⁰⁰ AES Initial Comments at 21; Clean Energy Associations Initial Comments at 48; Fervo Energy Initial Comments at 6.

²⁴⁰¹ Duke Southeast Utilities Initial Comments at 27–28.

²⁴⁰² *Id.* at 28; AECI Initial Comments at 7; AEP Initial Comments at 34; Ameren Initial Comments at 23–24; EEL Initial Comments at 19; Illinois Commission Initial Comments at 9; LADWP Initial Comments at 5; NRECA Initial Comments at 39; Southern Initial Comments at 4, 16; SPP Initial Comments at 20.

²⁴⁰³ AECI Initial Comments at 7; AEP Initial Comments at 34; Duke Southeast Utilities Initial Comments at 27; EEL Initial Comments at 19; LADWP Initial Comments at 5; MISO Initial Comments at 98; Southern Initial Comments at 16; SPP Initial Comments at 20.

²⁴⁰⁴ SPP Initial Comments at 20.

²⁴⁰⁵ Invenery Initial Comments at 44–45.

²⁴⁰⁶ Xcel Initial Comments at 16, 41–42.

²⁴⁰⁷ *Id.* at 15.

²⁴⁰⁸ *Id.* at 43.

²⁴⁰⁹ NRECA Initial Comments at 40.

proceeding.²⁴¹⁰ MISO also encourages the Commission to recognize that this FPA section 205 filing process will add length and delay to the affected system study process, which further compounds and demonstrates the problems with the Commission's automatic penalty proposal.²⁴¹¹

iii. Commission Determination

1276. We adopt the NOPR proposal, with modification, to add section 9.7 to the *pro forma* LGIP to require affected system transmission providers to study all affected system interconnection requests using ERIS modeling standards.²⁴¹² We decline to adopt the NOPR proposal to expressly acknowledge in *pro forma* LGIP section 9.7 that an affected system transmission provider may submit an FPA section 205 filing to request to study an affected system interconnection customer using NRIS on a case-by-case basis.

1277. We find that the use of ERIS in affected system studies is just and reasonable, given that the affected system transmission provider has no obligation to continually ensure deliverability for an affected system interconnection customer that has obtained NRIS on its host system. An NRIS study goes beyond the prerequisite ERIS study and uses stricter modeling standards to assess an interconnection request to ensure that the interconnection customer's electric output is deliverable to load in aggregate on the host transmission provider's transmission system.²⁴¹³ We find that the use of ERIS for affected system studies is consistent with Order No. 2003 because interconnection is separate from the deliverability component of transmission service.²⁴¹⁴

1278. We also find that this requirement is likely to prevent an

affected system interconnection customer from being required to construct significant network upgrades on the transmission provider's affected system, but not being deliverable due to curtailment or congestion on the affected system. Without this reform, rates would continue to be unjust and unreasonable because an affected system interconnection customer would face increased costs without a commensurate increase in service, as explained in the NOPR. This mismatch between costs and services received would occur because the affected system transmission provider has no obligation to ensure that the output from the affected system interconnection customer's generating facility is deliverable on the affected system and could lead to curtailment of the generating facility, or there could be congestion on the affected system preventing deliverability of the generating facility's output.

1279. We also find that, if the affected system transmission provider were able to study affected system interconnection customers under an NRIS standard, it could require affected system interconnection customers to pay significant upfront costs in order to construct the required affected system network upgrades, which could lead to late-stage interconnection request withdrawals as interconnection customers will not receive affected system study results until late in the interconnection process. An ERIS standard ensures that the assigned affected system network upgrade costs will likely be lower and that affected system interconnection customers assigned affected system network upgrades will be less likely to withdraw at a late stage. This standard will help prevent the cascading restudies that commenters have observed²⁴¹⁵ and will ensure that the interconnection process operates more efficiently.

1280. We also find that the use of ERIS in affected system study processes across all transmission provider regions will create consistency and provide transparency for affected system interconnection customers. Currently, similarly situated interconnection customers requesting NRIS on their host transmission systems could have disparate impacts on affected systems that use different modeling standards, and these interconnection customers could be assigned dramatically different affected system network upgrade costs due to those varying modeling standards, without any factual or service

differences to justify the discriminatory treatment. Thus, the consistent application of ERIS in affected system studies across all transmission providers' study processes will ensure that all affected system interconnection customers are studied similarly.²⁴¹⁶ As such, we agree with commenters that the use of ERIS on all affected system interconnection requests will increase certainty and transparency.²⁴¹⁷

1281. We find outside the scope of this final rule Xcel's request that the Commission require all generating facilities in RTO/ISO markets to be deliverable and its claim that ERIS-level generating facilities do not bear the costs necessary to ensure that they are deliverable to load.²⁴¹⁸ We are not proposing in this final rule to alter how an interconnection customer in an RTO/ISO requests its type of interconnection service on the host system (*i.e.*, ERIS or NRIS); rather, we are standardizing how an affected system transmission provider studies an affected system interconnection request.

1282. Regarding AECI's claim that the NOPR proposal would produce disproportionate burdens by necessitating curtailment from economical and reliable generating facilities to accommodate generating facilities on a different transmission system unless overall granularity of the redispatch and curtailment process is increased in real time, we find no evidence of this concern, from AECI or otherwise.²⁴¹⁹ Rather, AECI appears concerned that generating facilities on its transmission system may be redispatched and curtailed, which we have acknowledged may occur.²⁴²⁰ Additionally, we note the transmission loading relief procedures set the priority for curtailing generating facilities as necessary, and this final rule is not revising those procedures. Finally, to the extent that the costs associated with increasing the overall granularity of real-time models is less than any hypothetical increase in curtailment and redispatch costs, a transmission provider may increase the real-time granularity of its model.

1283. Further, we find that Idaho Power has not adequately explained how this reform will result in

²⁴¹⁰ MISO Initial Comments at 98; NextEra Initial Comments at 34.

²⁴¹¹ MISO Initial Comments at 98.

²⁴¹² In relevant part, *pro forma* LGIP section 9.7 states: "Transmission Provider must study an Affected System Interconnection Customer using the Energy Resource Interconnection Service modeling standard used for Interconnection Requests on its own Transmission System, regardless of the level of interconnection service that Affected System Interconnection Customer is seeking from the host transmission provider with whom it seeks to interconnect."

²⁴¹³ See Order No. 2003, 104 FERC ¶ 61,103 at P 768; Order No. 2003-A, 106 FERC ¶ 61,220 at P 500. Specifically, a transmission provider studying a generating facility for NRIS would study the transmission system at peak load, under a variety of severely stressed conditions to determine whether, with the generating facility operating at full output, the aggregate of generation in the local area can be delivered to the aggregate of load, consistent with reliability criteria and procedures.

²⁴¹⁴ Order No. 2003, 104 FERC ¶ 61,103 at P 118; Order No. 2003-A, 106 FERC ¶ 61,220 at P 113.

²⁴¹⁵ OMS Initial Comments at 17; Pine Gate Initial Comments at 42.

²⁴¹⁶ Order No. 2003, 104 FERC ¶ 61,103 at P 11 (stating that a standard set of interconnection procedures will, among other things, expedite the development of new generation, while protecting reliability and ensuring that rates are just and reasonable).

²⁴¹⁷ ELCON Initial Comments at 8; Fervo Energy Initial Comments at 6; UMPA Initial Comments at 6.

²⁴¹⁸ Xcel Initial Comments at 15–16, 41–42.

²⁴¹⁹ AECI Initial Comments at 7.

²⁴²⁰ NOPR, 179 FERC ¶ 61,194 at P 213.

insufficiently identifying network upgrades that are jointly owned by multiple entities.²⁴²¹ Moreover, even if this were a valid concern, we find that this concern would be equally present regardless of the modeling standard (*i.e.*, ERIS or NRIS) used to conduct the affected system study.

1284. As discussed in the NOPR proposal, using a less stringent modeling standard may result in more frequent redispatch or curtailment by not fully capturing all the potential impacts of the affected system interconnection customer's generating facility(ies) on an affected system. Based on the record, we continue to find that these risks are limited in nature, particularly in non-RTO/ISO regions where interconnection service does not, by itself, allow a generating facility's power to flow. In non-RTO/ISO regions, power can only flow from a generating facility once transmission service has been requested and granted. For example, once point-to-point transmission service has been requested to enable a particular generating facility's power to flow, either by the generating facility itself or its power sale customer, *pro forma* open access transmission tariff section 21 (Provisions Relating to Transmission Construction and Services on the Systems of Other Utilities) provides a process similar to the affected system process in the *pro forma* LGIP. In summary, *pro forma* open access transmission tariff section 21 makes the transmission customer responsible for obtaining any necessary engineering, permitting, and construction of transmission or distribution facilities on the system(s) of utilities other than the directly connected transmission provider, but requires that transmission provider to undertake reasonable efforts to assist in that effort. This means that affected systems will have another opportunity to study the impact of the interconnection customer's generating facility in the context of this transmission service request, whether a new point-to-point transmission service request or designation as a new network resource under an existing transmission customer's network integration transmission service, before any power can flow from the generating facility.

1285. Moreover, we find that any significant impact would generally be captured by an ERIS study, which would ensure that any reliability impacts on the affected system are mitigated to accommodate the interconnection of the affected system interconnection customer's proposed

generating facility to the host system. That ERIS adequately studies an affected system interconnection customer's interconnection request for its reliability impacts on the affected system is evidenced by MISO's use of only ERIS in affected system studies without adverse reliability impacts.²⁴²²

1286. Regarding AECI's claim that using only ERIS in affected system studies may result in increased *de minimis* impacts,²⁴²³ we are not setting the implementation of the ERIS standard. Rather, each transmission provider determines its own implementation of that standard, which could include a *de minimis* threshold that is best for its region. The Commission has found that, if consistently applied, it is reasonable for interconnection customers to not bear cost responsibility for *de minimis* impacts on transmission facilities based on a threshold.²⁴²⁴ Additionally, we expect that any overloads in the models due to the accumulation of *de minimis* impacts will ultimately be assigned, pursuant to the transmission provider's tariff, when an interconnection customer triggers the need for a network upgrade or when the transmission provider's reliability transmission planning process identifies the need for mitigation.

1287. We disagree with LADWP that the use of ERIS by an affected system transmission provider will result in approval of generating facilities with insufficient network upgrades identified.²⁴²⁵ As discussed above, we find that, in general, the use of ERIS is sufficient for affected system studies to prevent reliability issues from occurring on the affected system. Moreover, as noted earlier, in non-RTO/ISO regions, power can only flow from a generating facility once transmission service has been requested and granted, meaning that affected systems will have another opportunity to study the impact of the interconnection customer's generating facility in the context of the associated transmission service request before any power can flow from that generating facility as explained above.

1288. Similarly, we find that commenters' concerns about harm to firm transmission service and cost shifting when using ERIS in affected system studies are misplaced because those concerns do not arise until the interconnection customer seeks to deliver power from its generating

facility to a customer, which outside of RTO/ISO regions can only happen once transmission service is separately secured.²⁴²⁶ In Order No. 2003, the Commission found that interconnection service is separate from the delivery component of transmission service, and, in the majority of circumstances, interconnection alone is unlikely to affect the reliability of an affected system transmission provider's transmission system.²⁴²⁷ Additionally, the Commission found that holding new interconnection customers responsible for network upgrades to all interconnected systems, including not only the transmission system to which the generating facility interconnects, but other, more distant transmission systems as well would create an unreasonable obstacle to the construction of new generation.²⁴²⁸ As such, if an affected system interconnection customer subsequently seeks deliverability on either the host system or an affected system and submits a transmission service request to either the host transmission provider or the affected system transmission provider, the affected system transmission provider will have the opportunity to study the request and potentially require the construction of additional network upgrades on the affected system to accommodate deliverability. Therefore, we find that being assigned significant affected system network upgrades under an NRIS study without the obligation for the affected system transmission provider to ensure that the output from an affected system interconnection customer's generating facility is integrated on the affected system similar to generating facilities that serve the affected system transmission provider's native load customers or network resources results in unjust and unreasonable rates by increasing the cost for affected system interconnection customers without a commensurate increase in service.²⁴²⁹

²⁴²⁶ AEP Initial Comments at 34; NRECA Initial Comments at 39; SPP Initial Comments at 20–21; Xcel Initial Comments at 43.

²⁴²⁷ Order No. 2003, 104 FERC ¶ 61,103 at P 118; Order No. 2003–A, 106 FERC ¶ 61,220 at P 113.

²⁴²⁸ Order No. 2003, 104 FERC ¶ 61,103 at P 120.

²⁴²⁹ As stated in section III.A.1, the *pro forma* LGIP defines NRIS service as “an Interconnection Service that allows the Interconnection Customer to integrate its Large Generating Facility with the Transmission Provider's Transmission System (1) in a manner comparable to that in which the Transmission Provider integrates its generating facilities to serve native load customers; or (2) in an RTO or ISO with market based congestion management, in the same manner as Network Resources. Network Resource Interconnection Service in and of itself does not convey transmission service.” *Pro forma* LGIP section 1.

²⁴²² MISO Initial Comments at 98.

²⁴²³ AECI Initial Comments at 7.

²⁴²⁴ *Tenaska Clear Creek Wind, LLC v. Sw. Power Pool, Inc.*, 180 FERC ¶ 61,160, at P 99 (2022).

²⁴²⁵ LADWP Initial Comments at 5.

²⁴²¹ Idaho Power Initial Comments at 12.

1289. Regarding claims that affected system transmission providers would need to develop operating procedures or capital projects or perform curtailments due to the additional stress on affected systems caused by affected system interconnection requests being studied under the ERIIS modeling standard,²⁴³⁰ we find these claims to be speculative and that affected system studies are designed to ensure that an affected system interconnection customer's proposed generating facility can reliably connect to the host system without adversely impacting an affected system and are not meant to ensure deliverability on either the host or affected system. As mentioned above, an affected system transmission provider has no obligation to ensure that an affected system interconnection request is fully deliverable.

1290. We are unpersuaded by arguments that the NOPR proposal may not work in all scenarios²⁴³¹ and note that commenters did not provide specific examples of how the proposal would not work under the Commission's *pro forma* LGIP process. Several commenters raise concerns that, although the use of ERIIS may work in regions with joint operating agreements or coordinated transmission service studies, the use of ERIIS for all affected system studies may not be appropriate if an affected system transmission provider's transmission service studies do not identify all impacts. Once again, in adopting the ERIIS requirement for affected system transmission providers, we find that ERIIS is sufficient to capture reliability impacts of affected system interconnection requests on the affected system. We do not address whether individual transmission providers have adequate transmission service studies. If a transmission provider believes that changes are needed to better consider the deliverability of transmission service on its transmission system or with its neighboring transmission systems, nothing in this final rule prevents transmission providers from addressing those concerns.

1291. We decline requests for the Commission to set modeling standards, to require transmission providers to include their modeling standards in their tariffs, or to provide direction on how ERIIS and NRIS should be studied and what service the interconnection customer should receive, and to require neighboring transmission providers to coordinate assumptions and update

those assumptions quarterly.²⁴³² We find these requests to be outside the scope of the final rule.

1292. Although some commenters request flexibility on whether to use ERIIS or NRIS in conducting an affected system study,²⁴³³ we find such a request is essentially a request to maintain the status quo, which, as discussed above, results in Commission-jurisdictional rates that are unjust, unreasonable, and unduly discriminatory or preferential and prevents interconnection customers from interconnecting in a reliable, efficient, transparent, and timely manner.

1293. We decline to adopt the proposal stating that an affected system transmission provider may make an FPA section 205 filing to request use of an NRIS modeling standard in affected system studies. We find that there is no need to expressly provide for the availability of an FPA section 205 filing in *pro forma* LGIP section 9.7 because transmission providers always have the right to submit an FPA section 205 filing.

3. Optional Resource Solicitation Study a. NOPR Proposal

1294. In the NOPR, the Commission explained that resource solicitation processes inspire a number of interconnection requests, but in most cases, state agencies and LSEs implementing state mandates do not have the opportunity to request dedicated studies themselves.²⁴³⁴

1295. The Commission proposed to revise the *pro forma* LGIP to require transmission providers to allow resource planning entities, *i.e.*, any entity required to develop a resource plan or conduct a resource solicitation process, including a state entity or LSE, to initiate an optional resource solicitation study.²⁴³⁵

1296. Under the NOPR proposal, the resource planning entity would identify the valid interconnection requests associated with its qualifying resource solicitation process or qualifying resource plan and request that the transmission provider study several combinations of those interconnection requests in a resource solicitation study.²⁴³⁶

1297. The Commission clarified that under this proposal, the resource planning entity would not receive a queue position: interconnection customers would maintain their queue position obtained through the cluster request window and proceed through the regular interconnection queue alongside all other customers.²⁴³⁷

1298. The Commission proposed that the transmission provider must evaluate each combination of interconnection requests submitted by the resource planning entity as a group, in the same manner it will perform cluster studies under the proposed *pro forma* LGIP.²⁴³⁸ The Commission proposed a 135-calendar day time limit on the optional resource solicitation study (compared to 150 calendar days for the cluster study).

1299. The Commission sought comment on: (1) the NOPR proposal to explicitly include state agencies that are required to develop a resource plan or conduct a resource solicitation process in the definition of a resource planning entity; (2) whether other entities should qualify as resource planning entities and therefore be able to request initiation of an optional resource solicitation study, and, if so, what impact, if any, their inclusion would have on the efficiency of the interconnection process and whether their inclusion would raise concerns of undue discrimination or preference; (3) whether the proposed optional resource solicitation study raises any confidentiality concerns, including whether the optional resource solicitation study report could be posted on the transmission provider's OASIS before the qualifying solicitation process has concluded; and (4) what, if any, challenges multistate transmission providers—in particular, those RTOs/ISOs that serve large, multi-state areas—may face regarding study timing, multiple concurrent studies, or other issues in offering an optional resource solicitation study option, and any proposals to mitigate such challenges.²⁴³⁹

b. Comments

i. Comments in Support

1300. Many commenters support the NOPR proposal and note that the ability to gather holistic information on a range of resource mix scenarios from transmission providers would support efforts by states and other resource planning entities to meet policy

²⁴³⁰ LADWP Initial Comments at 5.

²⁴³¹ AEP Initial Comments at 34; Clean Energy Associations Initial Comments at 48; SPP Initial Comments at 20–21; Xcel Initial Comments at 43.

²⁴³² AES Initial Comments at 8, 21; Clean Energy Associations Initial Comments at 48; Enel Initial Comments at 27, 68; NV Energy Initial Comments at 12; Pine Gate Initial Comments at 42; SEIA Initial Comments at 35.

²⁴³³ Duke Southeast Utilities Initial Comments at 27–28; NYISO Initial Comments at 46.

²⁴³⁴ NOPR, 179 FERC ¶ 61,194 at P 211.

²⁴³⁵ *Id.* P 223.

²⁴³⁶ *Id.* P 224.

²⁴³⁷ *Id.* P 226.

²⁴³⁸ *Id.* P 233.

²⁴³⁹ *Id.* PP 236–237.

objectives.²⁴⁴⁰ The North Dakota Commission notes that resource solicitation studies could help improve coordination and make state-level, bottom-up resource planning processes more efficient and cost-effective.²⁴⁴¹ Similarly, Ørsted argues that resource solicitation studies have the potential to reduce the uncertainty involving the interconnection cost portion of future state-sponsored resource solicitations.²⁴⁴²

ii. Comments in Opposition

1301. AES states that it does not believe reforms on this issue should be part of the final rule but does not oppose transmission providers submitting optional resource solicitation study proposals to the Commission pursuant to separate FPA section 205 filings after consultation with stakeholders.²⁴⁴³

1302. AEP disagrees with the Commission's conclusion that failure to provide for a resource solicitation process leads to unjust and unreasonable rates.²⁴⁴⁴ AEP argues that this reasoning only applies to "entities required to conduct a resource plan or resource solicitation process" and that, accordingly, there is no legal basis to "solve" the problem through a nationwide mandate, as transmission providers with no LSEs that are required to "conduct a resource plan or resource solicitation process" do not need to amend their tariffs to include the optional resource solicitation study proposal. AEP asserts that there is no evidence that LSEs in RTOs/ISOs need the optional resource solicitation study process to perform IRPs efficiently and reach appropriate procurement decisions. AECI argues that resource planning entities should maintain discretion over their portfolios, and that the Commission lacks jurisdiction to mandate deployment of any particular resource or to require transmission providers to provide preferential

treatment towards any specific technology.²⁴⁴⁵

1303. Several commenters argue that the proposed optional resource solicitation study is unnecessary, particularly in regions such as PJM and MISO, which have existing or proposed processes for considering state objectives.²⁴⁴⁶

1304. CAISO and SPP argue that the proposed optional resource solicitation study may create uncertainty regarding the cost and timing of interconnecting to the transmission system.²⁴⁴⁷ CAISO asserts that it is impossible to provide meaningful cost data to interconnection customers until the transmission provider knows precisely the entire make-up of the study cluster.²⁴⁴⁸

1305. Several commenters question the efficacy of the resource solicitation study proposal.²⁴⁴⁹ PJM argues that, because the study would include only a subset of the clustered interconnection requests, the results would not be indicative of the outcome when considering the entire cluster, and would not provide information upon which resource planning entities could act or base decisions.²⁴⁵⁰ Enel and Indicated PJM TOs argue that the studies would not be expected to yield a reliable estimate of the total costs of the portfolio of resources being contemplated by the resource planner.²⁴⁵¹ Similarly, Indicated PJM TOs argue that optional studies will divert scarce resources away from curing the fundamental problem, arguing that such studies may not be valuable to resource planners because they would be conducted in a vacuum, would not account for other interconnection requests, and would not necessarily lead to the most efficient combination of resources.²⁴⁵²

1306. Some commenters assert that prospective interconnection customers will have an incentive to lodge speculative interconnection requests antithetical to the desired streamlining of the *pro forma* LGIA and *pro forma* LGIP process contemplated by the

NOPR.²⁴⁵³ APPA–LPPC comment that, to the extent that the generating facilities associated with interconnection requests are competing in a resource solicitation in which they may not be selected, such interconnection requests could constitute the kind of speculative interconnection request that the NOPR otherwise discourages.²⁴⁵⁴

1307. Several commenters argue that the optional resource solicitation study will result in inefficiencies and delays that degrade the quality of the main cluster study.²⁴⁵⁵ Several commenters express concern that adding optional resource solicitation studies as a *pro forma* LGIP requirement would hinder the Commission's goal of increasing the speed of processing interconnection requests, arguing that the additional study requirements are time consuming and would require significant resources to complete.²⁴⁵⁶ Enel states that, because a transmission provider would be required to evaluate six full cluster studies (*i.e.*, one standard plus five sensitivities) with different combinations of generating facilities, the optional resource solicitation study would inevitably lead to delays, restudies, late-stage withdrawals, errors, and increased potential for inadequate consideration of lower cost and alternative mitigations.²⁴⁵⁷ The Colorado Commission argues that the NOPR proposal could materially delay the clean energy transition in Colorado given interconnection scarcity concerns if it required the elimination of resource solicitation clusters as currently implemented by the Colorado utilities.²⁴⁵⁸

1308. Some commenters question whether transmission providers can realistically manage interconnection cluster studies and perhaps multiple optional resource solicitation studies at the same time.²⁴⁵⁹ Indicated PJM TOs

²⁴⁵³ AECI Initial Comments at 8; Enel Initial Comments at 69.

²⁴⁵⁴ APPA–LPPC Initial Comments at 27.

²⁴⁵⁵ *Id.*; AECI Initial Comments at 8; Bonneville Initial Comments at 22; CAISO Initial Comments 30–31; CREA and NewSun Reply Comments at 55; Dominion Initial Comments at 39; Enel Initial Comments at 69; Illinois Commission Initial Comments at 11; NARUC Initial Comments at 31; NextEra Initial Comments at 35; NYISO Initial Comments at 46; PJM Initial Comments at 5–6.

²⁴⁵⁶ Bonneville Initial Comments at 22; CAISO Initial Comments 30–31; CREA and NewSun Reply Comments at 55; Enel Initial Comments at 69; Illinois Commission Initial Comments at 11; NARUC Initial Comments at 31; NextEra Initial Comments at 35; NYISO Initial Comments at 46; PJM Initial Comments at 6; SEIA Reply Comments at 18, 21; SPP Initial Comments at 22.

²⁴⁵⁷ Enel Initial Comments at 69–71.

²⁴⁵⁸ Colorado Commission Reply Comments at 3.

²⁴⁵⁹ Indicated PJM TOs Initial Comments at 50; MISO Initial Comments at 101–102; Northwest and

²⁴⁴⁰ Clean Energy States Initial Comments at 9; Colorado Commission Reply Comments at 2; Consumers Energy Initial Comments at 8; EEI Initial Comments at 5–6; Illinois Commission Initial Comments at 11; Iowa Commission Initial Comments at 6; NARUC Initial Comments at 25; NESCOE Initial Comments at 17; New Jersey Commission Initial Comments at 16–17; North Carolina Commission Initial Comments at 26; Northwest and Intermountain Initial Comments at 15; Ørsted Initial Comments at 15; OPSI Initial Comments at 7; Public Interest Organizations Initial Comments at 37–38.

²⁴⁴¹ North Dakota Commission Initial Comments at 7.

²⁴⁴² Ørsted Initial Comments at 15.

²⁴⁴³ AES Initial Comments at 22.

²⁴⁴⁴ AEP Initial Comments at 39–40.

²⁴⁴⁵ AECI Initial Comments at 8.

²⁴⁴⁶ Dominion Initial Comments at 39; Dominion Reply Comments at 24; Indicated PJM TOs Initial Comments at 51; MISO Initial Comments at 9, 98–102; MISO Reply Comments at 11; National Grid Initial Comments at 39; OMS Initial Comments at 18.

²⁴⁴⁷ CAISO Initial Comments at 30; SPP Initial Comments at 22.

²⁴⁴⁸ CAISO Initial Comments at 31.

²⁴⁴⁹ AEE Initial Comments at 35; Enel Initial Comments at 71; Indicated PJM TOs Initial Comments at 50.

²⁴⁵⁰ PJM Initial Comments at 50.

²⁴⁵¹ Enel Initial Comments at 71; Indicated PJM TOs Initial Comments at 50.

²⁴⁵² Indicated PJM TOs Initial Comments at 50.

state that the ability for any resource planning entity to initiate the resource solicitation study without warning at any time would be especially burdensome.²⁴⁶⁰ MISO warns that multiple resource planning entities could request an optional study with different combinations, requiring MISO to perform numerous iterations of its system impact studies.²⁴⁶¹ Several commenters argue that instituting an additional study will put further strain on transmission providers' limited staff resources.²⁴⁶² Bonneville, WAPA, and NRECA assert that most small transmission providers are not staffed or organized to accomplish the work discussed by the Commission.²⁴⁶³

1309. Several commenters caution the Commission that the optional resource solicitation studies could be costly.²⁴⁶⁴ MISO contends that mandating a new study activity without a corresponding study deposit may result in a situation where study deposit funds run out, halting interconnection studies until more funds are provided and leading to interconnection queue delays.²⁴⁶⁵ NRECA also argues that requiring both the optional informational interconnection studies and the optional resource solicitation studies increase costs for transmission customers.²⁴⁶⁶ SEIA argues that imposing an optional resource solicitation process in the early stages of the interconnection process, before interconnection customers receive the cost estimates of their network upgrades, means that the results from the study may not accurately reflect the costs of the network upgrades for the resources in the study.²⁴⁶⁷ Enel argues that, because the resource planning entity selects generating facilities for scenarios without any knowledge of interconnection results, it is possible that the selected generating facilities will end up being built despite large upgrade costs.²⁴⁶⁸

Intermountain Initial Comments at 16–17; NRECA Initial Comments at 41–42; PJM Initial Comments at 6.

²⁴⁶⁰ Indicated PJM TOs Initial Comments at 50; Indicated PJM TOs Reply Comments at 18.

²⁴⁶¹ MISO Initial Comments at 102.

²⁴⁶² Dominion Initial Comments at 39; Indicated PJM TOs Initial Comments at 50; National Grid Initial Comments at 38–39; NYISO Initial Comments at 46; PJM Initial Comments at 6; SEIA Initial Comments at 36.

²⁴⁶³ Bonneville Initial Comments at 22; WAPA Initial Comments at 14; NRECA Initial Comments at 41–42.

²⁴⁶⁴ Clean Energy Associations Initial Comments at 51; Illinois Commission Initial Comments at 11; MISO Initial Comments at 103.

²⁴⁶⁵ MISO Initial Comments at 103.

²⁴⁶⁶ NRECA Initial Comments at 41–42.

²⁴⁶⁷ SEIA Reply Comments at 18–19.

²⁴⁶⁸ Enel Initial Comments at 72.

1310. Several commenters contend that the proposal is unjust, unreasonable, and unduly discriminatory or preferential because it gives special treatment to generating facilities selected to fulfill a resource plan without full consideration of interconnection upgrades.²⁴⁶⁹ Several commenters are concerned that this proposal could allow vertically integrated transmission providers or LSEs to use the process in a way that would inappropriately favor the interconnection of company-owned resources.²⁴⁷⁰ NARUC and SEIA explain that an LSE could have a transmission provider identify cost-saving interconnection options through the optional resource solicitation study for company-owned resources but exclude non-company-owned resources from the analysis, thus tipping the cost evaluation in favor of the company's resources.²⁴⁷¹ Likewise, Interwest and EPSA are concerned that priority in interconnection queue processing for interconnection requests selected in a resource plan and under contract with a utility may provide competitive advantages for vertically integrated utilities because of their control over the selection of projects and the identification and timing of the installation of network upgrades.²⁴⁷²

1311. SEIA also argues that an optional resource solicitation study in situations where there is a commercial readiness requirement presents numerous opportunities for a utility to discriminate against independent power producers in favor of that utility's own generation.²⁴⁷³ AEP argues that, in multi-state RTOs/ISOs, the proposal facially discriminates against LSEs that are not eligible resource planning entities or are located in states that are not eligible resource planning entities themselves, and shifts key RTO/ISO resources away from such entities.²⁴⁷⁴ In RTOs/ISOs that allow bilateral capacity procurement, AEP argues that

²⁴⁶⁹ *Id.* at 68, 72; AEE Initial Comments at 35–36; EPSA Initial Comments at 12; Interwest Initial Comments at 9; Interwest Reply Comments at 8; MISO Initial Comments at 98; OMS Initial Comments at 18; PJM Initial Comments at 50–51; SEIA Reply Comments at 19–20.

²⁴⁷⁰ AEE Initial Comments at 36; CREA and NewSun Initial Comments at 89; EPSA Initial Comments at 11–12; Interwest Initial Comments at 9–10; NARUC Initial Comments at 26–27; Northwest and Intermountain Initial Comments at 15–16; Public Interest Organizations Initial Comments at 41; SEIA Initial Comments at 36.

²⁴⁷¹ NARUC Initial Comments at 26–27; SEIA Initial Comments at 36; SEIA Reply Comments at 20.

²⁴⁷² EPSA Initial Comments at 12; Interwest Initial Comments at 9–10.

²⁴⁷³ SEIA Initial Comments at 36.

²⁴⁷⁴ AEP Initial Comments at 37–38.

the proposal likewise discriminates between LSEs with qualifying resource planning entities (which may well be themselves) and those without.

1312. Multiple commenters argue that the proposed requirement to perform an optional resource solicitation study in multiple states imposes a considerable burden on RTOs/ISOs without providing meaningful benefits.²⁴⁷⁵ PJM argues that requiring it “to serve as a de facto consultant” to resource planning entities in addition to its efforts to expedite and process the country's largest interconnection queue would require PJM to take on a role beyond its authority as a transmission provider.²⁴⁷⁶ Similarly, Indicated PJM TOs argue that there is no justification for requiring transmission providers to provide resource solicitation studies when consultants could do so.²⁴⁷⁷

1313. The North Dakota Commission suggests that the Commission should consider whether the proposal potentially allows cost-shifting from states or localities with significant resource build out mandates to other states within the RTO/ISO and how to mitigate such unjust cost-shifting.²⁴⁷⁸ Similarly, Interwest cautions that, in bilateral and RTO/ISO markets, requiring a ranking in priority between interconnection requests may result in setting up competition between the utilities, with each vying for space on the constrained system.²⁴⁷⁹

1314. Tri-State adds that there are “timing issues” regarding the optional resource solicitation study, as it does not align with the electric resource planning process within Colorado, and potentially other states.²⁴⁸⁰ The Colorado Commission is also concerned that, to the extent interconnection requests are permitted to be made into non-resource solicitation cluster studies without strong requirements to demonstrate that those requests are for viable generating facilities, the cluster study results may render later resource solicitation study results inaccurate.²⁴⁸¹

²⁴⁷⁵ *Id.* at 36–37; AES Initial Comments at 22; CAISO Initial Comments at 31; ClearPath Initial Comments at 9; Dominion Initial Comments at 39; MISO Initial Comments at 105; NextEra Initial Comments at 35; PJM Initial Comments at 51; SEIA Reply Comments at 21; WAPA Initial Comments at 15.

²⁴⁷⁶ PJM Initial Comments at 51.

²⁴⁷⁷ Indicated PJM TOs Reply Comments at 19.

²⁴⁷⁸ North Dakota Commission Initial Comments at 7.

²⁴⁷⁹ Interwest Initial Comments at 10.

²⁴⁸⁰ Tri-State Initial Comments at 29.

²⁴⁸¹ Colorado Commission Reply Comments at 5 n.10.

iii. Requests for Alternatives and Regional Flexibility

1315. Public Interest Organizations argue that the Commission should grant extra flexibility on the 135-calendar day study timeline.²⁴⁸² Several commenters support the implementation of boundaries or guardrails to ensure that optional resource solicitation studies do not delay the study of other interconnection requests by diverting needed resources away from the general interconnection queue.²⁴⁸³ Several commenters support the proposal so long as protections are included to prevent undue discrimination and maintain a competitive generation solicitation.²⁴⁸⁴

1316. NARUC asks the Commission to consider going farther than requiring the optional resource solicitation study only for purposes of transparency and cost estimation; it recommends making the results of the studies available for interconnection customers to pursue and a basis upon which interconnection customers could seek interconnection on an expedited basis.²⁴⁸⁵

1317. Xcel, the Colorado Commission, and EEI argue that the resource solicitation cluster should have its own queue position.²⁴⁸⁶ Enel recommends that the optional resource solicitation study be a separate queue cycle with an intermediate queue priority between the transmission provider's annual study clusters.²⁴⁸⁷ Several commenters argue that resources selected as part of the resource solicitation process should be given priority in the interconnection queue.²⁴⁸⁸ The Colorado Commission suggests that the Commission modify its proposal to prioritize interconnection requests selected to serve native and network load within the RTO/ISO.

1318. The Colorado Commission and Xcel encourage the Commission to determine that any current resource solicitation cluster processes already in

place remain just and reasonable or are consistent with/superior to the final rule.²⁴⁸⁹ SEIA disagrees, noting that PSCo's existing resource solicitation study procedures were approved by the Commission in 2004 only so long as PSCo did not "disadvantage or delay other Interconnection Requests not involved in the solicitation."²⁴⁹⁰ SEIA argues that the Colorado Commission's current proposal to prioritize interconnection requests selected in the state process conflicts with this 2004 order and the Commission's "longstanding prohibition against queue jumping."²⁴⁹¹

1319. Multiple commenters request clarification and changes to the NOPR's proposal on resource solicitation in multistate transmission areas,²⁴⁹² but NARUC and Xcel suggest that facilitated coordination of resource planning and interconnection as well as discussion across states and LSEs may be the most helpful practice to reduce the burden of differing state portfolio requirements on transmission providers in multi-state areas.²⁴⁹³

1320. Several commenters suggest that the proposed optional resource solicitation study should occur outside the tariff process.²⁴⁹⁴ NextEra argues that the absence of such a feature from the *pro forma* LGIP is in no way unjust and unreasonable and that, if a transmission provider feels the need to customize its LGIP in this way, the transmission provider can do so on its own.²⁴⁹⁵ NRECA suggests that the Commission require that base cases and support files are available for LSEs so the LSE can run these studies outside of the tariff process.²⁴⁹⁶ WAPA and Bonneville argue that resource solicitation studies should occur at the reliability coordinator level and not the transmission provider level.²⁴⁹⁷

1321. Several commenters argue that the Commission should allow transmission providers flexibility in

implementing resource solicitations.²⁴⁹⁸ NYISO asserts that it has addressed the NOPR's aims by permitting state agencies to act as a developer for purposes of obtaining a generic interconnection request that they can put out for solicitation.²⁴⁹⁹

c. Commission Determination

1322. We decline to adopt the NOPR proposal to modify the *pro forma* LGIP to require transmission providers to allow resource planning entities to initiate an optional resource solicitation study.²⁵⁰⁰ We find that there is insufficient evidence in the record to justify establishing the optional resource solicitation study process proposed in the NOPR as a generic solution across all regions for coordinating state-level resource planning with the interconnection process. As commenters explain, many transmission providers do not have LSEs that conduct a resource solicitation process. We are also concerned that the particular "one size fits all" approach proposed in the NOPR would create uncertainty regarding the cost and timing of interconnecting to the transmission system, because the proposed study would not result in useful network upgrade cost estimates. Finally, we agree with commenters that the proposal as set forth in the NOPR would divert transmission provider resources and potentially lead to delays in the processing of the interconnection queue.

1323. Notwithstanding our decision not to adopt the NOPR's resource solicitation proposal, we agree with commenters who note that, in certain regions, resource solicitation studies have the potential to reduce uncertainty, improve coordination, and make resource planning more efficient and cost effective. We acknowledge comments arguing that a resource solicitation study may be most effective if paired with a structure where the resources within the resource solicitation structure are granted their own queue position, as this provides the relevant resources and soliciting entity with actionable information and avoids the uncertainty and delay that may occur if a study is conducted only for informational purposes and the

²⁴⁸² Public Interest Organizations Initial Comments at 38.

²⁴⁸³ Illinois Commission Initial Comments at 11; NESCOE Initial Comments at 18; OPSI Initial Comments at 7–8.

²⁴⁸⁴ CREA and NewSun Initial Comments at 89–90; CREA and NewSun Reply Comments at 55; Interwest Initial Comments at 11; Northwest and Intermountain Initial Comments at 16; Pine Gate Initial Comments at 43; Public Interest Organizations Initial Comments at 41; R Street Initial Comments at 15–16.

²⁴⁸⁵ NARUC Initial Comments at 31.

²⁴⁸⁶ Colorado Commission Initial Comments at 29; Colorado Commission Reply Comments at 6; EEI Initial Comments at 5–6; Xcel Initial Comments at 11, 14.

²⁴⁸⁷ Enel Initial Comments at 72.

²⁴⁸⁸ Arizona Commission Initial Comments at 2; Colorado Commission Reply Comments at 2; Public Interest Organizations Initial Comments at 43; Xcel Initial Comments at 46.

²⁴⁸⁹ Colorado Commission Reply Comments at 1; Xcel Initial Comments at 11.

²⁴⁹⁰ SEIA Reply Comments at 20 (citing NOPR, 179 FERC ¶ 61,194 at P 298; *Xcel Energy Operating Cos.*, 109 FERC ¶ 61,072, at P 26 (2004)).

²⁴⁹¹ *Id.* at 20–21 (citing *Xcel Energy Operating Cos.*, 106 FERC ¶ 61,260, at P 22, *order on reh'g*, 109 FERC ¶ 61,072).

²⁴⁹² AEP Initial Comments at 36; CAISO Initial Comments at 31; PacifiCorp Initial Comments at 39; PJM Initial Comments at 51; WAPA Initial Comments at 15; Xcel Initial Comments at 45–46.

²⁴⁹³ NARUC Initial Comments at 30–31; Xcel Initial Comments at 45.

²⁴⁹⁴ NextEra Initial Comments at 35; NRECA Initial Comments at 42.

²⁴⁹⁵ NextEra Initial Comments at 35.

²⁴⁹⁶ NRECA Initial Comments at 42.

²⁴⁹⁷ Bonneville Initial Comments at 22; WAPA Initial Comments at 14.

²⁴⁹⁸ AECI Initial Comments at 8; Dominion Initial Comments at 39; Interwest Initial Comments at 12; ISO–NE Initial Comments at 38; NESCOE Reply Comments at 15; NRECA Initial Comments at 10; NYISO Initial Comments at 46; PacifiCorp Initial Comments at 39; PJM Initial Comments at 51; Xcel Initial Comments at 14, 45; Xcel Reply Comments at 3.

²⁴⁹⁹ NYISO Initial Comments at 47.

²⁵⁰⁰ Because we are not adopting this proposal, we do not address comments on specific aspects of the proposal.

associated resources do not have a queue position that corresponds to the study assumptions.²⁵⁰¹ We note that our decision not to adopt the NOPR's proposal in this final rule in no way prejudices any future resource solicitation study proposals that transmission providers may choose to file pursuant to FPA section 205.

C. Reforms To Incorporate Technological Advancements Into the Interconnection Process

1. Increasing Flexibility in the Generator Interconnection Process

a. Co-Located Generating Facilities Behind One Point of Interconnection With Shared Interconnection Requests

i. Need for Reform and NOPR Proposal

1324. In the NOPR, the Commission noted that the current *pro forma* LGIP does not address interconnection requests made up of multiple generating facilities seeking to co-locate and to share a single point of interconnection.²⁵⁰² The Commission preliminarily found that the lack of such a process limits the interconnection of generating facilities, hindering competition and rendering the Commission's existing *pro forma* LGIP unjust, unreasonable, and unduly discriminatory or preferential.²⁵⁰³

1325. The Commission therefore proposed to revise the *pro forma* LGIP and *pro forma* LGIA to "require transmission providers to allow more than one generating facility to co-locate on a shared site behind a single point of interconnection and share a single interconnection request."²⁵⁰⁴ The Commission explained that this proposed reform would "create a minimum standard that would remove barriers for co-located resources by creating a standardized procedure for these types of configurations to enable them to access the transmission system."²⁵⁰⁵

1326. The Commission proposed to revise the *pro forma* LGIP to: "(1) define 'Co-Located Resources' as 'more than one resource located behind the same point of interconnection'; (2) state that co-located resources can share an interconnection request; (3) modify the definition of site control such that it allows interconnection customers to demonstrate shared land-use for co-

located resources."²⁵⁰⁶ The Commission also proposed to modify the definition of interconnection facilities to clarify that multiple generating facilities located on the same site may share interconnection facilities.²⁵⁰⁷

1327. The Commission also proposed revisions to the *pro forma* LGIP to "require generating facilities that are co-locating to have technology to address differences in terminal voltage between the co-located generating facilities to ensure that these generating facilities have the same voltage levels."²⁵⁰⁸ The Commission noted that many co-located generating facilities are co-located with electric storage resources,²⁵⁰⁹ and proposed to define "electric storage resources" in the *pro forma* LGIP as a resource capable of receiving electric energy from the grid and storing it for later injection of electric energy back to the grid.²⁵¹⁰

ii. Comments

(a) Comments in Support

1328. Commenters overwhelmingly support the Commission's proposal.²⁵¹¹ Eversource conditionally supports the proposal as a solid step that will improve the interconnection process.²⁵¹² Avangrid is not opposed to the proposal but does not foresee the reform as providing incremental efficiency to transmission providers.²⁵¹³

1329. Evergreen Action avers that co-location is vital to connecting more generation in the short term as transmission providers begin to work

through large interconnection queue backlogs,²⁵¹⁴ and Evergreen Action and NRECA state that co-locating two or more resources will take advantage of technologies like battery storage to more efficiently use the transmission system.²⁵¹⁵ AEE and State Agencies argue that, because existing interconnection procedures were designed before battery storage and hybrid resource types came into common usage, these types of technologies are often underserved under existing interconnection procedures despite being well represented in current interconnection queues, making this reform timely.²⁵¹⁶ OSPA urges the Commission to implement this proposal as soon as possible.²⁵¹⁷

1330. Several commenters argue that the NOPR proposal will likely improve the overall efficiency of interconnection processes, result in more accurate interconnection queue positions, and help to ensure just and reasonable rates.²⁵¹⁸ Environmental Defense Fund argues that combinations of generation and storage on a single site will create several benefits, including reducing intermittency, shifting supply to better meet demand, responding to grid events, and enabling provision of ancillary services.²⁵¹⁹

1331. AEE argues that the greatest value of storage systems is their ability to respond rapidly with a high degree of controllability, and contends that hybrid resources smooth the output of variable resources, allowing for increased land use efficiencies.²⁵²⁰ Several commenters argue that the proposal will yield interconnection queue efficiency because the shared nature of the co-located resources can be fully accounted for in a single interconnection request; they contend that requiring co-located resources to submit multiple interconnection requests increases cost, timing, and complexity, while forgoing reliability benefits.²⁵²¹

²⁵⁰⁶ *Id.* P 243.

²⁵⁰⁷ *Id.*; proposed *pro forma* LGIP section 1.

²⁵⁰⁸ NOPR, 179 FERC ¶ 61,194 at P 245.

²⁵⁰⁹ *Id.* P 240.

²⁵¹⁰ *Id.*; proposed *pro forma* LGIP section 1.

²⁵¹¹ AEE Initial Comments at 38; AES Initial Comments at 23; Ameren Initial Comments at 26; APPA-LPPC Initial Comments at 28; CAISO Initial Comments at 32; Clean Energy Associations Initial Comments at 59; Clean Energy Buyers Initial Comments at 4–5; Consumers Energy Company Initial Comments at 8; CREA and NewSun Initial Comments at 90; Environmental Defense Fund Initial Comments at 5; Environmental Defense Fund Reply Comments at 8; ELCON Initial Comments at 10; Enel Initial Comments at 78; Evergreen Action Initial Comments at 3; ISO-NE Initial Comments at 39; MISO Initial Comments at 107; NARUC Initial Comments at 33; National Grid Initial Comments at 39; NextEra Initial Comments at 6; NRECA Initial Comments at 44; NY Commission and NYSERDA Initial Comments at 9; NYISO Initial Comments at 47; NYTOs Initial Comments at 31–32; OSPA Reply Comments at 15; Ohio Commission Initial Comments at 14; Omaha Public Power Initial Comments at 13; Ørsted Initial Comments at 18; Pine Gate Initial Comments at 44–45; Public Interest Organizations Initial Comments at 43; SEIA Initial Comments at 37; SoCal Edison Initial Comments at 19; SPP Initial Comments at 23; State Agencies Initial Comments at 14.

²⁵¹² Eversource Initial Comments at 32–33.

²⁵¹³ Avangrid Initial Comments at 34.

²⁵¹⁴ Evergreen Action Initial Comments at 3.

²⁵¹⁵ *Id.*; NRECA Initial Comments at 44.

²⁵¹⁶ AEE Initial Comments at 38; State Agencies Initial Comments at 14.

²⁵¹⁷ OSPA Reply Comments at 15.

²⁵¹⁸ AEE Initial Comments at 39; AES Initial Comments at 23; NARUC Initial Comments at 33; Ohio Commission Initial Comments at 14.

²⁵¹⁹ Environmental Defense Fund Initial Comments at 5.

²⁵²⁰ AEE Initial Comments at 39.

²⁵²¹ *Id.*; AES Initial Comments at 39; Consumers Energy Company Initial Comments at 8; Environmental Defense Fund Initial Comments at 5–6; NARUC Initial Comments at 33; Ohio Commission Initial Comments at 14; Ørsted Initial Comments at 19; Public Interest Organizations Initial Comments at 44; SEIA Initial Comments at 37–38; SoCal Edison Initial Comments at 19.

²⁵⁰¹ See Colorado Commission Initial Comments at 29; Colorado Commission Reply Comments at 6; EEI Initial Comments at 5–6; Xcel Initial Comments at 11, 14.

²⁵⁰² NOPR, 179 FERC ¶ 61,194 at P 239.

²⁵⁰³ *Id.* P 240.

²⁵⁰⁴ *Id.* P 242.

²⁵⁰⁵ *Id.*

1332. In support of the proposal, AEE argues that several transmission providers already allow co-located generating facilities at the same point of interconnection to submit a single request (e.g., CAISO, ISO-NE, and MISO).²⁵²² AES contends that the Commission's proposed reforms are necessary to ensure parity across all RTOs/ISOs on this issue, as some RTOs'/ISOs' practices erect unnecessary and unreasonable barriers for generating facilities located behind a single point of interconnection to interconnect.²⁵²³

1333. Omaha Public Power supports the Commission's proposals to facilitate new technologies, specifically the reforms related to co-located resources, revisions to the modification process, and surplus interconnection capacity.²⁵²⁴ Omaha Public Power observes, however, that many transmission providers have already made progress in this area and therefore recommends that the Commission allow existing transmission provider processes that are facilitating new technologies to continue.

(b) Comments on Specific Proposal

1334. Avangrid asserts that the Commission's proposal should not change or supersede any regional metering requirements for market participation and contends that co-located resources must have separate meters even if they share a point of interconnection.²⁵²⁵

1335. NARUC and MISO support the Commission's proposal that co-located generating facilities must have technology to address differences in terminal voltage between the co-located generating facilities.²⁵²⁶ MISO states that having to study a single co-located generating facility with two points of interconnection at different voltages would be infeasible, and that co-located generating facilities should be required to inject at a single point of interconnection, at a single voltage.²⁵²⁷ SPP states that it is unclear what the Commission intended in the NOPR by proposing to require that generating facilities "address differences in terminal voltage between the co-located generating facilities to ensure that these generating facilities have the same voltage levels."²⁵²⁸ SPP contends that it would be simpler to require that such

generating facilities connect at the same point of interconnection and leave the details as to how to do that to the interconnection customer. Ameren argues that, so long as modeling is available to the transmission provider for the types of resources that are behind the point of interconnection, co-located resources with differences in terminal voltage should not be an issue when performing the interconnection studies.²⁵²⁹

1336. Ørsted supports the Commission's proposed changes to the definition of "interconnection facilities."²⁵³⁰ Enel states that the proposed insertion of the phrase "by interconnection customer" in the third sentence of the *pro forma* LGIA/LGIP definition of "interconnection facilities" should be changed to the phrase "by interconnection customer(s)."²⁵³¹ Enel further states that the proposed new fourth sentence to the definition of "interconnection facilities" explains that multiple interconnection customers may use a single set of interconnection facilities, and thus "sole use facilities" may have multiple interconnection customer beneficiaries.

1337. Southern states that, under the NOPR proposal, co-located resources can include different owners of different generating facilities.²⁵³² Pine Gate and Southern note that the proposal to allow interconnection customers to demonstrate shared land-use may require interconnection customers to provide transmission providers more detailed site maps to demonstrate valid site control for each generating facility.²⁵³³ Southern states that this is appropriate because the transmission provider should not be responsible for monitoring the legal relationship between the co-owners.²⁵³⁴ Southern states that co-located resources must either be owned by the same owner, or the different owners of the generating facilities must enter into an agreement that addresses off-take rights and ownership, and they must submit one interconnection request for the entire generating facility. Tri-State suggests clarifying that a separate agreement is not necessary when both co-located resources belong to the same interconnection customer.²⁵³⁵

1338. Clean Energy Associations support allowing multiple generating facilities that share a single point of

interconnection to submit a joint interconnection request as a hybrid or co-located resource. Clean Energy Associations argue that interconnection customers with proposed generating facilities where the electric storage resource and generating facility are co-located, and have two "resource IDs," should be allowed to choose to have each component studied separately.²⁵³⁶ Clean Energy Associations also submit that the generating equipment for the generating facilities should not be required to be located on a shared site. Clean Energy Associations further assert that such flexibility would allow, for example, a solar facility to obtain a faster ERIS study while the co-located storage could get a more detailed study for NRIS.

1339. Southern contends that co-located resources that intend to be qualifying facilities should be required to comply with PURPA requirements.²⁵³⁷

(c) Requests for Clarification and Flexibility

1340. Pine Gate agrees that co-located generating facilities must have technology to address differences in terminal voltage between the co-located generating facilities, arguing that such technology is likely necessary in instances where a co-located resource is being studied under a single interconnection request for a net injection at the point of interconnection.²⁵³⁸ However, Pine Gate requests that the Commission clarify that such technology is not necessary in instances in which the interconnection customer elects to submit a co-located resource using two separate interconnection requests.

1341. SPP notes that in the NOPR, the Commission proposed to define "co-located resources" as "more than one resource located behind the same point of interconnection," whereas the proposed definition in the *pro forma* LGIP reads, "Co-Located Resource shall mean multiple Generating Facilities located on the same site."²⁵³⁹ SPP states that two generating facilities can be located on the same site without connecting behind the same point of interconnection. SPP asks the Commission to clarify in the final rule which definition of co-located resource is required. SPP states that it supports a definition that explicitly states that the

²⁵²² AEE Initial Comments at 39–40.

²⁵²³ AES Initial Comments at 23.

²⁵²⁴ Omaha Public Power Initial Comments at 13.

²⁵²⁵ Avangrid Initial Comments at 34.

²⁵²⁶ MISO Initial Comments at 107–108; NARUC Initial Comments at 33.

²⁵²⁷ MISO Initial Comments at 107–108.

²⁵²⁸ SPP Initial Comments at 23 (citing NOPR, 179 FERC ¶ 61,194 at P 245).

²⁵²⁹ Ameren Initial Comments at 26.

²⁵³⁰ Ørsted Initial Comments at 18.

²⁵³¹ Enel Initial Comments at 81–82.

²⁵³² Southern Initial Comments at 35.

²⁵³³ *Id.* at 36; Pine Gate Initial Comments at 46.

²⁵³⁴ Southern Initial Comments at 36.

²⁵³⁵ Tri-State Initial Comments at 25.

²⁵³⁶ Clean Energy Associations Initial Comments at 59–61.

²⁵³⁷ Southern Initial Comments at 36.

²⁵³⁸ Pine Gate Initial Comments at 46.

²⁵³⁹ SPP Initial Comments at 23.

generating facilities must connect at the same point of interconnection.

1342. MISO and Southern request that the Commission clarify that co-located resources must be required to share an interconnection request.²⁵⁴⁰ According to MISO, its tariff and Order No. 807²⁵⁴¹ allow for different interconnection requests to share a generator tie line and thus share the same point of interconnection. MISO argues that failing to amend the definition of co-located resource would conflate the two scenarios under the same definition, such that two separate noncontiguous generating facilities that share a generator tie line would share the same point of interconnection, thus also falling under the definition of co-located resources without the intent to do so.²⁵⁴² Southern argues that the Commission should clarify that the interconnection tie line connecting the co-located resource to the transmission system is a radial facility, not a network facility.²⁵⁴³

1343. National Grid asks that the Commission clarify what is included in the definition of “co-located resources.”²⁵⁴⁴ National Grid understands that the term can apply to hybrid technologies owned by a single interconnection customer interconnecting to a single point of interconnection, such as a solar generating facility coupled with a storage facility. National Grid suggests that, to the extent the term also is intended to apply to multiple interconnection customers with separate generating facilities interconnecting to a single point of interconnection, that the proposal might create complexities not discussed in the NOPR but may merit consideration.

1344. SEIA requests clarification on the terminology used in the proposal.²⁵⁴⁵ SEIA states that in January 2021, in its order directing reports on information related to hybrid resources, the Commission used two distinct terms to identify hybrid resource market participation.²⁵⁴⁶ SEIA states that “co-located hybrid resources” are defined as two separate resources sharing a single point of interconnection that are modeled and dispatched separately.

SEIA states that “integrated hybrid resources” are defined as sets of resources that share a single point of interconnection and are modeled and dispatched as a single resource. Tri-State similarly states that the “electric storage resource” definition does not account for resources designed to be charged apart from the transmission system, such as solar or wind generating facilities that may charge an electric storage resource.²⁵⁴⁷ SEIA requests that the Commission adopt the terms co-located and integrated hybrid resources in the final rule and clarify that interconnection customers retain the choice of how to structure their interconnection requests to best suit their needs and the needs of their customers.²⁵⁴⁸

1345. Some commenters ask that the Commission provide regional flexibility as to the types of co-located resources permitted in each RTO/ISO and existing processes that may already accomplish the goals of the proposed reforms.²⁵⁴⁹ ISO-NE, NYISO, and MISO state that they are already in compliance with the proposed reform.²⁵⁵⁰

iii. Commission Determination

1346. We adopt, with modification, the NOPR proposal to revise *pro forma* LGIP section 3.1.2 to require transmission providers to allow more than one generating facility to co-locate on a shared site behind a single point of interconnection and share a single interconnection request. We decline to adopt the proposed definitions of “co-located resource” and “electric storage resource,” and we decline to adopt the proposed modifications to the definitions of interconnection facilities, and transmission provider’s interconnection facilities in *pro forma* LGIP section 1 and *pro forma* LGIA article 1.²⁵⁵¹ We find that including the definition of co-located resource in the *pro forma* LGIP and *pro forma* LGIA is not necessary to effectuate the process reforms detailed in the NOPR, and thus decline to adopt it here.²⁵⁵² Given that Order No. 845 revised the definition of generating facility to include electric

storage resources,²⁵⁵³ we also find it unnecessary to define the term electric storage resource in the *pro forma* LGIP and LGIA. We note that declining to adopt the definition of electric storage resource moots Tri-State’s concern that the proposed definition failed to account for electric storage resources that may be charged apart from the transmission system.²⁵⁵⁴

1347. We also decline to adopt the NOPR proposal to modify the definitions of interconnection facilities and transmission provider’s interconnection facilities to specify that interconnection facilities may be shared among interconnection customers. We find that such specification in the *pro forma* LGIP and *pro forma* LGIA is not needed because Commission policy does not prohibit interconnection customers from sharing interconnection facilities.²⁵⁵⁵ We expect that there may be benefits from interconnection customers being able to share transmission provider’s interconnection facilities and interconnection customer’s interconnection facilities, particularly in light of the Commission’s transition in this final rule to a cluster study approach. Under a cluster study approach, in which multiple interconnection requests are evaluated in a combined study, efficiencies may be gained (in cost and time to construct) by allowing interconnection customers to share use of, and payment for, interconnection facilities. We note that such efficiencies from allowing the interconnection facilities to be used by more than one interconnection customer do not exist under the Commission’s existing *pro forma* LGIP serial interconnection study process because the serial study process does not consider the interconnection facilities that would be necessary to accommodate the interconnection of *more than one interconnection customer*. In response to Ørsted and Enel’s comments expressing support for the revisions to the definitions of interconnection facilities and transmission provider’s interconnection facilities,²⁵⁵⁶ we state in this final rule that the interconnection facilities also may be used by more than one interconnection customer.

²⁵⁴⁰ MISO Initial Comments at 107; Southern Initial Comments at 36.

²⁵⁴¹ *Open Access & Priority Rights on Interconnection Customer’s Interconnection Facilities*, Order No. 807, 80 FR 17654 (Apr. 1, 2015), 150 FERC ¶ 61,211, *order on reh’g*, Order No. 807–A, 153 FERC ¶ 61,047 (2015).

²⁵⁴² MISO Initial Comments at 107.

²⁵⁴³ Southern Initial Comments at 37.

²⁵⁴⁴ National Grid Initial Comments at 39–40.

²⁵⁴⁵ SEIA Initial Comments at 38.

²⁵⁴⁶ *Id.* (citing *Hybrid Res.*, 174 FERC ¶ 61,034, at P 4 (2021)).

²⁵⁴⁷ Tri-State Initial Comments at 25.

²⁵⁴⁸ SEIA Initial Comments at 38.

²⁵⁴⁹ ISO-NE Initial Comments at 39; NY Commission and NYSEDA Initial Comments at 9; NYTOs Initial Comments at 31–32.

²⁵⁵⁰ ISO-NE Initial Comments at 39; MISO Initial Comments at 107; NYISO Initial Comments at 47.

²⁵⁵¹ NOPR, 179 FERC ¶ 61,194 at P 243; proposed *pro forma* LGIA section 1.

²⁵⁵² Co-located generating facilities are more than one generating facility that are located on the same site and that are connected at the same point of interconnection that are operated and dispatched as separate generating facilities.

²⁵⁵³ See Order No. 845, 163 FERC ¶ 61,043, at P 275 (modifying the definition of “Generating Facility” in the *pro forma* LGIP and *pro forma* LGIA to include “and/or storage for later injection”).

²⁵⁵⁴ Tri-State Initial Comments at 25.

²⁵⁵⁵ See, e.g., Order No. 807, 150 FERC ¶ 61,211, at P 3 (discussing the ability of interconnection customer’s interconnection facilities owners to make excess capacity available to third parties).

²⁵⁵⁶ Ørsted Initial Comments at 18; Enel Initial Comments at 81–82.

1348. We also decline to adopt the NOPR proposal to revise the *pro forma* LGIP to require generating facilities that are co-locating to have technology to address differences in terminal voltage between the co-located generating facilities to ensure that these generating facilities have the same voltage levels.²⁵⁵⁷ We find that the preexisting language in *pro forma* LGIP section 3.1 (section 3.1.2 as revised by this final rule) is clear that “[a]n Interconnection Request to evaluate one site at two different voltage levels shall be treated as two Interconnection Requests.” This preexisting provision makes clear that a set of co-located generating facilities must be at a single terminal voltage in order to be treated as a single interconnection request. The additional requirement proposed in the NOPR is therefore unnecessary to adopt in the final rule. We note that declining to adopt the NOPR proposal with respect to this issue alleviates SPP’s concern with the NOPR proposal.²⁵⁵⁸ In response to Pine Gate, we reiterate that preexisting *pro forma* LGIP section 3.1 (section 3.1.2 as revised by this final rule) would require co-located generating facilities with different terminal voltage levels to submit separate interconnection requests.²⁵⁵⁹

1349. As the Commission stated in the NOPR, recent studies demonstrate that large numbers of generating facilities currently in interconnection queues are seeking to co-locate on a shared site behind one point of interconnection and share an interconnection request, while operating separately, and that the *pro forma* LGIP currently lacks provisions that explicitly allow them to do so.²⁵⁶⁰ We agree with commenters that this type of generating facility configuration, in spite of being prevalent in current interconnection queues, faces barriers to interconnection under existing interconnection procedures,²⁵⁶¹ and that this reform will effectively remove such barriers. We find that requiring transmission providers to allow interconnection customers to submit a single interconnection request that represents multiple generating facilities that are located behind a single point of interconnection is required to ensure just and reasonable rates. By doing so, this reform will improve efficiency for transmission providers in the study process by reducing the number of interconnection requests in the

interconnection queue and will reduce costs for interconnection customers because they will only submit a single set of deposits to enter the interconnection queue.

1350. We also believe that this reform will improve interconnection queue efficiency without imposing an adverse impact on the efficacy of interconnection study results or other interconnection customers. Because of the significant growth of generating facilities seeking to interconnect jointly at a single point of interconnection,²⁵⁶² we find that allowing co-located generating facilities to submit one interconnection request will lessen the delays experienced in many interconnection queues. We agree with commenters that transmission providers requiring co-located generating facilities to submit separate interconnection requests increases the cost and complexity of the interconnection process and creates undue delay to the interconnection process.²⁵⁶³ Allowing co-located generating facilities to share interconnection requests will ensure the interconnection queue moves along expediently, providing clarity, cost certainty, and increased transparency throughout the study process.

1351. Some commenters suggest that co-located generating facilities should always be required to share an interconnection request.²⁵⁶⁴ Others request that interconnection customers retain the choice whether to share an interconnection request.²⁵⁶⁵ We clarify that interconnection customers have the choice to structure their interconnection requests according to their preference. We are not *requiring* interconnection customers to share a single interconnection request for multiple generating facilities located on the same site.

1352. However, we further clarify in response to Clean Energy Associations²⁵⁶⁶ that interconnection customers may submit separate interconnection requests to have each device studied separately. We find that this clarification also addresses MISO’s concern about any potential conflict

with Order No. 807.²⁵⁶⁷ Additionally, we clarify that, where an interconnection customer chooses to submit a single interconnection request for multiple generating facilities, the generating facilities must be located on the same site in order to reduce complexity for the transmission provider.

1353. In response to Southern’s request that the Commission clarify that the interconnection tie line connecting the co-located resource to the transmission system is a radial facility, not a network facility, we clarify that, as explained in Order No. 807, the Commission now refers to tie lines as the interconnection customer’s interconnection facilities.²⁵⁶⁸ As the Commission stated in Order No. 807, the interconnection customer’s interconnection facilities “are sole-use, limited and discrete, radial in nature, and not part of an integrated transmission network.”²⁵⁶⁹ Radial facilities located between the generating facility and point of interconnection are considered interconnection facilities under the *pro forma* LGIP and *pro forma* LGIA.²⁵⁷⁰

1354. In response to Omaha Public Power’s suggestion that the Commission allow existing transmission provider processes that are facilitating new technologies to continue unimpeded, we clarify that, consistent with section IV of this final rule, to the extent transmission providers believe that they already comply with the adopted *pro forma* LGIP provisions, they may demonstrate this in their compliance filings.

1355. In response to concerns about multiple interconnection customers using the same interconnection

²⁵⁶⁷ MISO Initial Comments at 107–108.

²⁵⁶⁸ The Commission stated that “[t]he jurisdictional interconnection facilities for which this Final rule grants a waiver have sometimes in the past been referred to informally as ‘generator tie lines,’ but, in the Notice of Proposed Rulemaking, the Commission used the term [Interconnection Customer’s Interconnection Facilities] as defined in the *pro forma* documents issued with Order No. 2003.” Order No. 807, 150 FERC ¶ 61,211, at n.1 (citing Order No. 2003, 104 FERC ¶ 61,103).

²⁵⁶⁹ Order No. 807, 150 FERC ¶ 61,211 at P 114.

²⁵⁷⁰ Under the *pro forma* LGIP, “Interconnection Facilities shall mean Transmission Provider’s Interconnection Facilities and Interconnection Customer’s Interconnection Facilities. Collectively, Interconnection Facilities include all facilities and equipment between the Generating Facility and the Point of Interconnection, including any modification, additions or upgrades that are necessary to physically and electrically interconnect the Generating Facility to Transmission Provider’s Transmission System. Interconnection Facilities are sole use facilities and shall not include Distribution Upgrades, Stand Alone Network Upgrades or Network Upgrades.” See *pro forma* LGIP section 1 and *pro forma* LGIA article 1.

²⁵⁵⁷ See NOPR, 179 FERC ¶ 61,194 at P 245.

²⁵⁵⁸ See SPP Initial Comments at 23.

²⁵⁵⁹ See Pine Gate Initial Comments at 46.

²⁵⁶⁰ NOPR, 179 FERC ¶ 61,194 at P 238.

²⁵⁶¹ AEE Initial Comments at 38; State Agencies Initial Comments at 14.

²⁵⁶² Currently, 42% (285 GW) of solar and 8% (17 GW) of wind projects in the queue are proposed as hybrid resources that would include electric storage. Queued Up 2023 at 18.

²⁵⁶³ AEE Initial Comments at 39; Environmental Defense Fund Initial Comments at 5–6.

²⁵⁶⁴ MISO Initial Comments at 107; Southern Initial Comments at 36.

²⁵⁶⁵ Clean Energy Associations Initial Comments at 59–61 (arguing against such a requirement to enable co-located generating facilities to seek ERIS versus NRIS); SEIA Initial Comments at 38.

²⁵⁶⁶ Clean Energy Association Initial Comments at 59–61 (requesting that generating equipment not be required to be on the same site).

request,²⁵⁷¹ we clarify that co-located generating facilities can be owned by a single interconnection customer with multiple generating facilities sharing a site, or by multiple interconnection customers that have a contract or other agreement that allows for shared land use.²⁵⁷² In response to Tri-State,²⁵⁷³ we clarify that no such agreement is necessary when the generating facilities in question belong to the same interconnection customer. In response to Southern,²⁵⁷⁴ we clarify that generating facilities that co-locate still must adhere to all other applicable laws and regulations, including PURPA.

1356. We find that comments regarding the following issues are outside the scope of this proceeding because they pertain to market issues and other rules that were not addressed in the NOPR: (1) permitting an interconnection customer to specify the co-located generating facility's maximum injection level to the point of interconnection;²⁵⁷⁵ and (2) metering requirements for co-located generating facilities.²⁵⁷⁶

1357. We decline SEIA's request that the Commission adopt a more expansive definition of "co-located resources," including how the resources are modeled and dispatched. Modeling assumptions for electric storage resources and co-located or hybrid generating facilities containing electric storage resources are addressed elsewhere in this final rule.²⁵⁷⁷

b. Revisions to the Modification Process To Require Consideration of Generating Facility Additions

i. Need for Reform and NOPR Proposal

1358. In the NOPR, the Commission expressed concern that, because certain requests to add a generating facility to an existing interconnection request are often deemed material without an evaluation, even if the injection amount remains the same, the material modification process may result in unjust, unreasonable, and unduly discriminatory or preferential outcomes.²⁵⁷⁸ The Commission pointed out that, as explained in Order No.

2003, it is inadequate and inefficient to solve interconnection issues on a case-by-case basis.²⁵⁷⁹ The Commission explained that, in the case of processing modification requests, without a standard set of procedures, transmission providers have adopted varying strategies for processing requests to add electric storage or other generating facilities that do not change the requested interconnection service limit to existing interconnection requests. The Commission preliminarily found that this lack of uniformity leads to disparate outcomes across the country and leaves open the potential for undue discrimination.

1359. The Commission explained that the modification provisions in the *pro forma* LGIP do not specify whether an interconnection customer can modify its interconnection request to add another generating facility at the same point of interconnection without increasing the requested interconnection service level.²⁵⁸⁰ The Commission stated that many transmission providers treat such a request automatically as a material modification, such that the interconnection customer that wishes to make this type of change faces a loss of interconnection queue position regardless of the actual effect the addition of a generating facility to an interconnection request may have on the system. The Commission explained that this process is a significant barrier to interconnection customers that wish to make this type of change and preliminarily found that such a barrier hinders access to the transmission system and may render existing interconnection processes unjust, unreasonable, and unduly discriminatory or preferential.²⁵⁸¹

1360. In the NOPR, the Commission proposed to revise the *pro forma* LGIP to require transmission providers to evaluate the proposed addition of a generating facility to an interconnection request as long as the interconnection customer does not request a change to the originally requested interconnection service level.²⁵⁸² Under this proposed requirement, the transmission provider could not automatically consider such a request to be a material modification. Specifically, the Commission proposed to require that: (1) transmission providers evaluate the proposed addition of a generating facility to an interconnection request within 60 calendar days of receiving the request

for modification if such addition does not change the requested interconnection service level; (2) the change cannot be considered an automatic material modification and an evaluation (including studying the configuration and necessary modeling) must occur prior to determining whether the proposed change constitutes a material modification of the interconnection request; and (3) if the proposed addition does not have a material impact on the cost or timing of any interconnection request that is lower or equally queued, and does not cause any other reliability concerns, the addition will not be considered a material modification.²⁵⁸³ The Commission noted that the reliability concerns could include, for example, a material impact on the transmission system with regard to short circuit capability limits, steady-state thermal and voltage limits, or dynamic system stability and response.

1361. The Commission sought comment on: (1) whether the addition of a generating facility that does not alter an interconnection customer's interconnection service limit could nonetheless require a full interconnection service study; (2) how transmission providers should perform studies required to confirm that there is no adverse impact because of the addition of a generating facility to an interconnection request, such as confirmation that the electrical characteristics of the interconnection customer remain the same; (3) whether and how interconnection customers in a later cluster, or interconnection customers that are in the same cluster, could be adversely impacted by such changes; (4) whether the addition of electric storage when in charging mode (in terms of resistance, inductance, and capacitance) may change the electrical characteristics of an interconnection request, and whether those changes may affect the reliable operation of the generating facility related to that interconnection request; and (5) whether further specification is needed for the assessment of the electrical characteristics due to the addition of a complex load.²⁵⁸⁴

ii. Comments

(a) Comments in Support

1362. A diverse group of commenters indicate general support for the NOPR proposal.²⁵⁸⁵ NARUC agrees that the

²⁵⁷¹ National Grid Initial Comments at 39–40; Southern Initial Comments at 35–36.

²⁵⁷² The revised definition of site control in the *pro forma* LGIP adopted in this final rule requires that site control be "demonstrated by a contract or other agreement that allows for shared land use for all Generating Facilities that are co-located and meet the provisions of the Site Control definition." *Pro forma* LGIP section 3.4.2.

²⁵⁷³ Tri-State Initial Comments at 25.

²⁵⁷⁴ Southern Initial Comments at 36.

²⁵⁷⁵ Pine Gate Initial Comments at 45.

²⁵⁷⁶ Avangrid Initial Comments at 34.

²⁵⁷⁷ See *infra* section III.C.1.d.

²⁵⁷⁸ NOPR, 179 FERC ¶ 61,194 at P 252.

²⁵⁷⁹ *Id.* (citing Order No. 2003, 104 FERC ¶ 61,103 at PP 9–10).

²⁵⁸⁰ *Id.* P 253.

²⁵⁸¹ *Id.* P 254.

²⁵⁸² *Id.* P 255.

²⁵⁸³ *Id.* P 255.

²⁵⁸⁴ *Id.* PP 256–257.

²⁵⁸⁵ AEE Initial Comments at 40–41; AEE Reply Comments at 39–41; AES Initial Comments at 23;

proposed reform will promote consistency for interconnection customers throughout the country, in addition to promoting reliability, economic, and administrative efficiency as the generation fleet continues to evolve.²⁵⁸⁶ NARUC explains that the loss of interconnection queue position as a result of adding a generating facility that does not increase the requested service level or cause reliability issues, but rather could improve the performance and capability of a generating facility to manage reliability or lower the cost of energy to customers, is an inefficient and discriminatory outcome the Commission should seek to permanently remedy through this proceeding. AEE and Public Interest Organizations assert that a restudy would be automatically required for adding a generating facility such as storage, and that if there were not a restudy related to the addition of storage, they could provide numerous benefits, including firming up variable renewable generation, avoided curtailment, congestion relief, and, in the case of grid-forming inverters and batteries, fast frequency response and other grid flexibility services.²⁵⁸⁷ AEE contends that the loss of the benefits, primarily from adding storage, will harm reliability and result in unjust and unreasonable rates.²⁵⁸⁸ SEIA contends that adding an additional generating facility (such as storage) that does not increase the interconnection service level also should not increase the costs to later interconnection requests because it generally would not require additional network upgrades and should

not delay lower-queued interconnection requests.²⁵⁸⁹

1363. Clean Energy Associations and Shell add that a generating facility's addition of energy storage capability without increasing the power capability upon which its interconnection service level is based (e.g., increasing a two-hour battery to a four-hour battery) should not automatically be considered a material modification.²⁵⁹⁰ Clean Energy Associations also argue that the removal of a generating facility from a hybrid or co-located resource interconnection request should not automatically be considered a material modification if interconnection service levels do not change.²⁵⁹¹ Clean Energy Associations also request that the material modification rules allow for an increase in the underlying capability of the generating facility, rather than simply an addition of a new resource.

1364. Ameren believes that when considering the addition of a generating facility to an interconnection request, it is important to protect reliability while avoiding unjustly limiting interconnection customer changes by automatically deeming them material modifications.²⁵⁹² National Grid supports the proposal but asks the Commission to acknowledge that there may be instances when a determination that the requested generating facility addition is a material modification is necessary, such as if: (1) changes in load characteristics of the generating facility or in electrical characteristics of a resource; or (2) impacts to other interconnection customers in the interconnection queue.²⁵⁹³ SPP also generally supports the proposal but similarly notes there may be instances when a request that does not alter the interconnection service amount, it could require a full interconnection study and result in additional network upgrades (e.g., a request to change a generating facility from one type to another where changes to electric characteristics impact stability, fault current, or both).²⁵⁹⁴

1365. AES supports the proposal because it adds flexibility to the interconnection process, including the efficient addition of generating facilities such as electric storage resources to previously submitted interconnection

requests.²⁵⁹⁵ UMPA supports the flexibility of a generating facility's design if a more commercially viable option could be pursued without changing the level of interconnection service or causing reliability concerns, in particular when a prospective interconnection customer intends to acquire a preexisting interconnection queue position in accordance with *pro forma* LGIP section 4.3.²⁵⁹⁶

1366. AEE suggests that the flexibility to adopt "modest modifications" is important due to the current length of the interconnection process, technology changes, price declines, and other factors such as supply chain challenges.²⁵⁹⁷ AEE recognizes that some modifications may be material and will require restudy but suggests that disallowing modest changes like adding energy storage that may be beneficial, will harm reliability, and could increase consumer costs by limiting the ability to respond to changing opportunities and needs. NRECA supports the reform if it results in better use of the transmission system but argues that flexibility should not come at the expense of the NOPR's overall goal of reducing speculative interconnection requests, withdrawals, and restudies.²⁵⁹⁸

1367. Some commenters point out that certain RTOs/ISOs use similar approaches to those proposed.²⁵⁹⁹ NARUC highlights that certain planning regions have demonstrated that they can reliably accommodate generating facility additions that do not increase requested services levels without treating the modification as a material change.²⁶⁰⁰ NARUC underscores CAISO's flexible process that allows interconnection customers to modify the interconnection request and treats fewer resource additions as a material modification, which results in more consistent and predictable interconnection queue outcomes and ultimately more optimized investments.

(b) Comments in Opposition

1368. A number of commenters oppose the proposal.²⁶⁰¹ ISO-NE and

Ameren Initial Comments at 27; APS Initial Comments at 20; Avangrid Initial Comments at 34–35; CAISO Initial Comments at 32; Clean Energy Associations Initial Comments at 59–61; CREA and NewSun Initial Comments at 90–91; Cypress Creek Initial Comments at 18–19; Environmental Defense Fund Initial Comments at 6; Environmental Defense Fund Reply Comments at 8–9; ENGIE Initial Comments at 10–11; EPSA Initial Comments at 13; Equinor Wind Reply Comments at 5–6; Illinois Commission Initial Comments at 13–14; NARUC Initial Comments at 33–35; National Grid Initial Comments at 40 (noting qualifications); NRECA Initial Comments at 44; NY Commission and NYSEDA Initial Comments at 9; NYTOs Initial Comments at 31; Omaha Public Power Initial Comments at 13; Ørsted Initial Comments at 8; Ørsted Reply Comments at 7; PacifiCorp Initial Comments at 39–40; Pine Gate Initial Comments at 44, 47–49; OPSI Initial Comments at 9–10; Public Interest Organizations Initial Comments at 45–47; SEIA Initial Comments at 38–39; Shell Initial Comments, app. A at ii; SPP Initial Comments at 24; UMPA Initial Comments at 7–9.

²⁵⁸⁶ NARUC Initial Comments at 33–35.

²⁵⁸⁷ AEE Initial Comments at 40–41; Public Interest Organizations Initial Comments at 45.

²⁵⁸⁸ AEE Initial Comments at 40–41.

²⁵⁸⁹ SEIA Initial Comments at 38–39; *see also* ENGIE Initial Comments at 10–11.

²⁵⁹⁰ Clean Energy Associations Initial Comments at 59–61; Shell Initial Comments, app. A at ii.

²⁵⁹¹ Clean Energy Associations Initial Comments at 59–61.

²⁵⁹² Ameren Initial Comments at 27.

²⁵⁹³ National Grid Initial Comments at 40.

²⁵⁹⁴ SPP Initial Comments at 24.

²⁵⁹⁵ AES Initial Comments at 23.

²⁵⁹⁶ UMPA Initial Comments at 8.

²⁵⁹⁷ AEE Initial Comments at 40–41.

²⁵⁹⁸ NRECA Initial Comments at 44.

²⁵⁹⁹ CAISO Initial Comments at 32; NY Commission and NYSEDA Initial Comments at 9; NYISO Initial Comments at 48–49; SPP Initial Comments at 24.

²⁶⁰⁰ NARUC Initial Comments at 33–35.

²⁶⁰¹ Ameren Initial Comments at 27; Cypress Creek Initial Comments at 18–19; Eversource Initial Comments at 33–34; Idaho Power Initial Comments at 13; Indicated PJM TOs Initial Comments at 52–54; Indicated PJM TOs Reply Comments at 36–38, 52–54; ISO-NE Initial Comments at 39–40; MISO Initial Comments at 10; NERC Initial Comments at

Idaho Power argue that the Commission should require that interconnection requests be fully conceived by the time a cluster request window is closed and modifications be proposed in a subsequent cluster so it does not delay the cluster.²⁶⁰² ISO-NE contends that the flexibility in the proposal is contrary to the NOPR's goal of improving study completion timelines and readiness requirements because adding a generating facility to an interconnection request could introduce major changes to study scope, upgrade results, and delay rather than increase study time speed.²⁶⁰³

1369. MISO opposes the proposal because it believes that the proposal will increase speculative interconnection requests, contrary to the stated intention of NOPR, and that the balance is disrupted between flexibility to make changes and promoting fairness and certainty to other interconnection customers.²⁶⁰⁴ PJM, MISO, and Indicated PJM TOs argue that the proposal will cause delays and divert resources that would have been used toward processing the interconnection queue,²⁶⁰⁵ and MISO states the proposal may enable an end-run around its site control deadlines by giving interconnection customers more time to obtain site control.²⁶⁰⁶

1370. MISO states that, each time an interconnection customer requests a fuel change (including the addition of storage), under the proposal, MISO would have to determine if a material modification exists within 60 days by doing the following: (1) stop processing the interconnection queue, create an alternative model, and then run two system impact studies based on the different models (original and alternate) to determine if there were any changes between the two studies; (2) rebuild the models of any lower-queued cycles and run alternate system impact studies to determine if that would create any impacts for those interconnection requests, which MISO would not be able to complete within 60 days; and (3) correct the data that had been sent to an affected system operator, noting it is

unclear if the affected system operator would be able to inform MISO if the change in data created a material modification.²⁶⁰⁷ MISO notes that it uses fuel-based dispatch in its interconnection modeling, which exacerbates the above problems because it models individual fuel types in different ways, and includes electric storage in its definition of a different fuel type, so the addition of electric storage would result in a different type of modeling.²⁶⁰⁸

1371. PJM argues that interconnection customers should only be able to modify their interconnection requests in certain circumstances, pointing to its proposal to allow interconnection customers to make changes that meet pre-defined conditions at three decision points, with the changes at each decision point restudied together.²⁶⁰⁹ PJM claims that even if the maximum generating facility output or capacity interconnection rights do not increase, adding a generating facility to an interconnection request can affect other interconnection customers. PJM and Avangrid assert that substituting battery storage facilities for a portion of a solar generating facility or other generating facility without changing the generating facility's maximum output or capacity interconnection rights would likely be a material modification because it would require a light load test or other testing that was not performed for the original solar generating facility interconnection request.²⁶¹⁰ Ameren also states that such interconnection request changes can present challenges (e.g., when an interconnection customer's chosen technology changes due to the passage of time) and can raise reliability issues if not properly addressed, and therefore it is necessary to evaluate or conduct a restudy to make sure that the studies reflect the technologies actually being interconnected.²⁶¹¹ PacifiCorp similarly argues that requests to incorporate grid-charging battery storage technology should be processed separately because grid-charging capabilities can alter the electrical characteristics of an interconnection request.²⁶¹²

NV Energy states that in these situations more detailed studies may be required in areas of the transmission

system where the fault duty is already high.²⁶¹³

1372. Southern argues that the proposal should not accept modifications to interconnection requests without review because these requests could affect other interconnection customers in the same cluster as well as lower-queued clusters, adding that it may be a material modification that impacts the cost or timing of other interconnection requests.²⁶¹⁴

1373. MISO asserts that it is unclear if the NOPR proposal will require the interconnection customer to submit evidence of site control before making the modification request or after the request is granted.²⁶¹⁵ Idaho Power notes that site control requirements (primarily acreage) are based on the technology type used in the interconnection request and would require modification if the technology is changed.²⁶¹⁶ Idaho Power therefore argues that changing fuel type enables speculative interconnection requests that can affect other interconnection customers both in later clusters and in the same cluster.

1374. Indicated PJM TOs also contend that not treating fuel type changes as material modifications would provide gaming opportunities, e.g., an interconnection customer could bypass the site control demonstration required at the outset of the study process by entering the interconnection queue with a proposed storage project with a small site footprint and later, without changing the size of the interconnection, adding a solar farm with a much larger site footprint.²⁶¹⁷ MISO also notes that the NOPR proposal is contrary to a recent Commission-approved MISO tariff revision regarding changing fuel types while it the interconnection queue, that went through a lengthy stakeholder process.²⁶¹⁸ MISO states that it uses fuel-based dispatch assumptions for interconnection modeling and argues that there is not a simple process to determine if changing fuel during the middle of the interconnection process could cause harm to lower- or equally queued interconnection requests without running a new study based on the updated model. MISO explains that it studies storage generating facilities differently than renewable generating

19–20; PacifiCorp Initial Comments at 39–40; PJM Initial Comments at 18–19, 51–53; Southern Initial Comments at 37–38; SPP Initial Comments at 24.

²⁶⁰² ISO-NE Initial Comments at 39–40; Idaho Power Initial Comments at 13.

²⁶⁰³ ISO-NE Initial Comments at 39–40.

²⁶⁰⁴ MISO Initial Comments at 108–12 (citing *Midcontinent Indep. Sys. Operator, Inc.*, 177 FERC ¶ 61,234, at P 12 (2021)); see also MISO Reply Comments at 9.

²⁶⁰⁵ Indicated PJM TOs Reply Comments at 38; Indicated PJM TOs Initial Comments at 52–54; MISO Initial Comments at 108–12; PJM Initial Comments at 6.

²⁶⁰⁶ MISO Initial Comments at 108–12.

²⁶⁰⁷ *Id.*

²⁶⁰⁸ *Id.* at 110.

²⁶⁰⁹ PJM Initial Comments at 51–52 (citing PJM Interconnection, L.L.C., Filing, Docket No. ER22–2110–000 (filed June 14, 2022)); see also SEIA Reply Comments at 23 (supporting PJM's suggestion).

²⁶¹⁰ PJM Initial Comments at 51–52; Avangrid Initial Comments at 34–35.

²⁶¹¹ Ameren Initial Comments at 27.

²⁶¹² PacifiCorp Initial Comments at 39–40.

²⁶¹³ NV Energy Initial Comments at 18.

²⁶¹⁴ Southern Initial Comments at 37–38.

²⁶¹⁵ MISO Initial Comments at 108–12.

²⁶¹⁶ Idaho Power Initial Comments at 13.

²⁶¹⁷ Indicated PJM TOs Initial Comments at 52–54; Indicated PJM TOs Reply Comments at 38.

²⁶¹⁸ MISO Initial Comments at 112–13.

facilities, and this affects the interconnection modeling.²⁶¹⁹

1375. Indicated PJM TOs argue that determining the “materiality” of a particular type of generating facility modification needs to take into account the cumulative impact on the cluster studies of all similar requests.²⁶²⁰ Indicated PJM TOs explain that, even if a type of modification sought by a single interconnection customer may have modest system impacts and thus not be “material” in a particular case, the cumulative impact of multiple similar requests in the same area could be much larger.

1376. Indicated PJM TOs contend, however, that certain modifications made behind the point of interconnection have reliability impacts requiring restudy and thus amount to material modifications (e.g., changing fuel type by adding storage to a generating facility).²⁶²¹ Indicated PJM TOs contend that such changes will likely affect short circuit capability limits, steady-state thermal and voltage limits, or dynamic system stability and response.²⁶²² Indicated PJM TOs also ask that the Commission recognize that different fuel types among resources have very different seasonal characteristics and dynamic response, arguing that the overall reliability of the transmission system could suffer if certain types of changes are incorrectly identified as non-material.²⁶²³ However, Shell contends that studies of the addition of a generating facility to an interconnection request should be limited to determining increased costs and/or study or construction delays of equal or lower-queued interconnection requests.²⁶²⁴

1377. Indicated PJM TOs ask that, at a minimum, the Commission allow transmission providers to determine the scope of “material modifications” based on their practical experience on their own systems and apply that knowledge as to the types of changes that typically affect other customers and that trigger the need for restudies.²⁶²⁵ Tri-State asserts that, when the performance of a new proposed generating facility differs from the existing/incumbent generating facility, transient stability analysis would be required but steady state

analysis (thermal/voltage) would not be required.²⁶²⁶

1378. NERC argues that transmission providers should study the potential impacts of any material change to the generating facility, such as the addition of storage, even when the interconnection service level does not change, because material modifications to the generating facility could alter stability and the interaction of a resource with the transmission system (e.g., adding inverters, which can increase short circuit current, and charging batteries from the transmission system, which can impact system power flow).²⁶²⁷

1379. Eversource argues that transmission providers cannot be expected to meet strict deadlines in an adversarial environment while interconnection customers may compound these issues by suggesting significant (even if not “material” by the definition of the revised *pro forma* LGIP) changes to their generating facilities in the middle of the interconnection process.²⁶²⁸

(c) Comments on Specific Matters

(1) Comments Seeking Materiality Guidelines

1380. Public Interest Organizations assert that the lack of a standardized definition in the *pro forma* LGIP of what constitutes a material modification, such as the addition of storage, leads to a lack of uniformity among transmission providers and disparate outcomes that could result in undue discrimination.²⁶²⁹ Similarly, Environmental Defense Fund asks the Commission to clarify how much flexibility transmission providers will be permitted in determining whether adding co-located generating facilities changes the service level and becomes a material modification, and it suggests that the Commission adopt firm guidelines for transmission providers to determine when the addition of a generating facility changes the service level to prevent discrimination against generating facilities based on their inclusion of hybrid resources.²⁶³⁰

1381. Pine Gate asks the Commission to require transmission providers to publish additional, consistent criteria regarding what changes to an

interconnection request will and will not be deemed a material modification, and that transmission providers publish their determinations about previous modification requests.²⁶³¹ Pine Gate contends that this information, which certain RTOs/ISOs already provide to interconnection customers, will reduce the number of restudies, shorten overall interconnection queue processing timelines, and reduce costs. Pine Gate, SEIA, and Shell support establishing thresholds, arguing that providing guidance of what constitutes a material modification will provide certainty to both interconnection customers and transmission owners.²⁶³²

1382. OPSI asks the Commission to require transmission providers to publish guidance on technologies and generating facility designs that would qualify presumptively as minor system modifications.²⁶³³ Indicated PJM TOs ask for “bright line” criteria (based on technical standards) for material modification to the extent possible, to narrow the scope of changes in a service request that need to be evaluated.²⁶³⁴ However, Indicated PJM TOs also argue that, in regions with large interconnection queues, the Commission should give transmission providers the flexibility to define “material modification,” taking into account the cumulative impact of particular categories of requested modifications based on the transmission provider’s past experience regarding the expected number of such requests.²⁶³⁵

1383. APS supports the proposal but requests guidelines regarding different technology types (e.g., increasing the size of a battery while also decreasing the size of a solar generating facility to keep the interconnection amount the same).²⁶³⁶ APS recommends that each technology type be treated independently in relation to requests to increase or decrease the sizes in the original interconnection request or otherwise be deemed a material modification (e.g., if the characteristics of a storage component change, it should be considered a different request that may be a material modification).

1384. R Street similarly asks the Commission to consider standardized, non-discriminatory conditions that trigger a material change to an interconnection request, even if the service limit does not change, arguing

²⁶¹⁹ *Id.* at 108–12.

²⁶²⁰ Indicated PJM TOs Reply Comments at 38.

²⁶²¹ *Id.* at 37–38.

²⁶²² *Id.* at 38 (citing PJM Interconnection, L.L.C., Answer, Docket No. ER19–1958–002, at 5 n.16 (filed Apr. 29, 2020)); Indicated PJM TOs Initial Comments at 52–54.

²⁶²³ Indicated PJM TOs Initial Comments at 52–54; Indicated PJM TOs Reply Comments at 38.

²⁶²⁴ Shell Initial Comments, app. A at ii.

²⁶²⁵ Indicated PJM TOs Reply Comments at 39.

²⁶²⁶ Tri-State Initial Comments at 22.

²⁶²⁷ NERC Initial Comments at 19–20.

²⁶²⁸ Eversource Initial Comments at 34.

²⁶²⁹ Public Interest Organizations Initial Comments at 45–47. *See also* Clean Energy Associations Initial Comments at 59; ENGIE Initial Comments at 10–11; SEIA Initial Comments at 38–39.

²⁶³⁰ Environmental Defense Fund Reply Comments at 8–9.

²⁶³¹ Pine Gate Initial Comments at 47–49.

²⁶³² *Id.* at 48; SEIA Reply Comments at 23; Shell Initial Comments, app. A at ii.

²⁶³³ OPSI Initial Comments at 9–10.

²⁶³⁴ Indicated PJM TOs Initial Comments at 52–54; Indicated PJM TOs Reply Comments at 37.

²⁶³⁵ Indicated PJM TOs Reply Comments at 39.

²⁶³⁶ APS Initial Comments at 20.

that hybrid resources should not be penalized for their technology profile.²⁶³⁷ R Street notes, for example, that adding an inverter-based generating facility to another such facility may not constitute a material change, but adding a natural gas turbine to a solar site, even with no increase to net output across the interconnection point, could create a material shift in interconnection facilities.

1385. NARUC asks the Commission to clarify the degree of flexibility transmission providers have in determining what constitutes a material reliability concern on the transmission system.²⁶³⁸ Cypress Creek asks the Commission to further modify the current material modification definition to state that certain equipment changes are not material (*e.g.*, changing solar modules, changing inverter models, adding storage capacity, or making minor adjustments to inverter performance) if planned export and import capacity remains the same and the technology changes comport with interconnection agreement requirements.²⁶³⁹ ClearPath asks: (1) whether under the proposed definition a change in equipment that necessitates submitting new models and input data is a material modification; and (2) how equipment changes for non-synchronous resources will be treated under the proposed definition of material modification and the proposed deadlines.²⁶⁴⁰

1386. Ørsted supports the proposed definition of “material modification” but disagrees with imposing restrictions on when material modifications can be submitted (*e.g.*, after the initial application).²⁶⁴¹ Ørsted asks the Commission to recognize that modifications may occur at various stages of the process to reflect the use of evolving technology or to meet Federal or state requirements.²⁶⁴² Ørsted acknowledges transmission providers’ time and effort to conduct studies associated with proposed modifications but states that there is also a need to balance the interests of the interconnection customer, as there are a number of reasons why changes to an interconnection request may be necessary and development time for resources must also be considered. Ørsted asserts that transmission providers’ differing processes for

assessing material modifications create regulatory uncertainty for interconnection customers seeking to develop generating facilities in different regions, which can have significant economic impacts for the generating facility.²⁶⁴³ Ørsted states that, if the Commission chooses not to make the proposed change to the modification process, then, at a minimum, the Commission should encourage development of best practices that can be implemented by all the RTOs/ISOs with the goal of increasing efficiency and regulatory certainty.

1387. Shell asks the Commission to define the differences between “co-located additive,” “co-located non-additive,” and “hybrid” resources, and explains that these categories will allow transmission providers to develop proper criteria and business practices governing additions and/or changes to pending interconnection requests.²⁶⁴⁴ Shell argues that, because transmission providers inconsistently apply the methods they use to assess which issues qualify as being adverse material impacts, the Commission should more clearly define the scope of an “adverse material impact” to ensure that transmission providers consistently determine whether an interconnection request impacts equally or lower-queued interconnection customer(s) to a sufficient level of harm.

(2) Comments on Study Timeline

1388. With respect to the study timeline, while NARUC supports the proposal to require transmission providers to evaluate proposed generation additions within 60 calendar days because it is a reasonable amount of time, it suggests that the Commission allow some flexibility because planning regions and the industry may face challenges aligning resources and expertise with increasingly aggressive schedules to perform complex interconnection studies.²⁶⁴⁵ Public Interest Organizations, on the other hand, argue that the 60-day timeline to perform an evaluation is critically important for continuing to reduce delays in interconnection queue processing.²⁶⁴⁶ Cypress Creek supports the concept of expedited study if the request for a modification does not change the level of service, there is no impact on cost or timing of a request that is lower- or equally queued, and it

does not cause reliability concerns.²⁶⁴⁷ Tri-State asks how the 60-day time frame would work with the cluster study process.²⁶⁴⁸ PJM opposes the 60-day timeline.²⁶⁴⁹

(3) Comments on Control Technologies

1389. ENGIE suggests that including control technologies in the evaluation of the addition of a generating facility to an existing interconnection request should confirm the lack of impact on other interconnection customers.²⁶⁵⁰ SEIA argues that transmission providers should be transparent about requiring specific types of control technologies to add an additional resource.²⁶⁵¹ Clean Energy Associations contend that hardware or software controls can also address, reliably and cost-effectively, concerns about the impact of the use or addition of energy storage on the reliable operation and delivery of energy (such as PJM’s concern regarding studies for light load conditions).²⁶⁵²

(4) Comments on Impacts of Storage in Charging Mode

1390. Pine Gate states that the scope of the required studies for the addition of storage will vary depending on the proposed configuration of the resource, such as whether it charges from the grid.²⁶⁵³ NV Energy states that any changes in the electrical characteristics of the storage system in charging mode versus generating mode are most likely negligible and unlikely to significantly impact studies.²⁶⁵⁴

1391. APS explains that, based on its experience, the introduction of new load (not electrical characteristics), such as storage charging from the grid in lieu of self-charging, which could require changes to the system overall, could affect the results of the existing study and other studies.²⁶⁵⁵

1392. Public Interest Organizations state that the transmission provider should study whether a storage generating facility’s charging and discharging load profiles may impact the grid.²⁶⁵⁶ Public Interest Organizations argue that the interconnection customer and transmission provider should work together to “identify the temporal and

²⁶³⁷ R Street Initial Comments at 16.

²⁶³⁸ NARUC Initial Comments at 33–35.

²⁶³⁹ Cypress Creek Initial Comments at 18–19.

²⁶⁴⁰ ClearPath Initial Comments at 10.

²⁶⁴¹ Ørsted Reply Comments at 5 (citing PJM Initial Comments at 17).

²⁶⁴² *Id.* at 2.

²⁶⁴³ *Id.* at 6–7.

²⁶⁴⁴ Shell Initial Comments, app. A at ii.

²⁶⁴⁵ NARUC Initial Comments at 33–35.

²⁶⁴⁶ Public Interest Organizations Initial Comments at 45–47.

²⁶⁴⁷ Cypress Creek Initial Comments at 18–19.

²⁶⁴⁸ Tri-State Initial Comments at 30.

²⁶⁴⁹ PJM Initial Comments at 51–53.

²⁶⁵⁰ ENGIE Initial Comments at 11.

²⁶⁵¹ SEIA Initial Comments at 38–39.

²⁶⁵² Clean Energy Associations Reply Comments at 10–11.

²⁶⁵³ Pine Gate Initial Comments at 48.

²⁶⁵⁴ NV Energy Initial Comments at 18.

²⁶⁵⁵ APS Initial Comments at 21.

²⁶⁵⁶ Public Interest Organizations Initial Comments at 45–47.

physical charging characteristics to be agreed upon,” but that the Commission does not need to further assess the details of the storage generating facilities charging because those attributes will be tied to the unique properties of the transmission system at that location and assessed during the interconnection process to ensure that charging load and operational profiles do not adversely impact the system.

(5) Miscellaneous Comments

1393. PJM asks the Commission to restrict the ability to modify interconnection requests after the initial application by allowing (1) an interconnection customer to move its point of interconnection only in certain limited instances and (2) other specified modifications only at certain specified times to avoid restudies and study delays.²⁶⁵⁷ PJM contends that there is no need to study the materiality of a change in an interconnection request’s point of interconnection because each such change requires analysis and the application of engineering judgment, which takes time away from processing interconnection requests and performing the cluster study. PJM claims that interconnection customers making changes are really seeking to optimize their generating facilities mid-process rather than performing due diligence before entering the interconnection queue.

1394. With respect to the need for system impact studies, Illinois Commission argues that, although in some cases additional studies are necessary in response to a request to add a generating facility to an existing interconnection request to ensure reliability, transmission providers should minimize repeating system impact studies to the extent possible to avoid slowing down the interconnection queue.²⁶⁵⁸ In response to the concern that evaluating modifications is time-consuming, Ørsted asks the Commission to allow third-party consultants engaged by the interconnection customers to help inform any studies related to modifications to reduce the workload on RTO/ISO staff.²⁶⁵⁹

1395. PPL suggests that the transmission provider should assign an interconnection queue position to the proposed additional generating facility.²⁶⁶⁰ PPL recommends the study of the original and additional interconnection request together in the

initial phase of the interconnection process, and if they do not contribute to any network upgrades or require any interconnection facilities, PPL suggests they should be able to proceed directly to final agreements.

1396. Pine Gate states that, if addition of a grid-charging storage resource is deemed a material modification, the interconnection customer should be permitted to propose the addition of a non-grid-charging electric storage resource as an alternative.²⁶⁶¹ In order to reduce the burden on transmission providers, Pine Gate asks the Commission to permit interconnection customers to provide to transmission providers engineering analysis applying what Pine Gate suggests would be published engineering criteria to the requested modification and analyzing the impacts to other interconnection customers or reliability, with the transmission provider then validating the results and determining if the proposed modification is material.

1397. Clean Energy Associations explain that if transmission providers study each component of co-located generating facilities separately, a wind or solar generating facility could obtain a faster study for ERIS while the co-located storage could get a more detailed study for NRIS.²⁶⁶² Clean Energy Associations assert that this flexibility would provide transmission providers more visibility during interconnection processes, reduce requests to retrofit generating facilities with additional co-located resources, and enable faster interconnection processes for component resources that will accept curtailment.

(d) Requests for Clarification and Flexibility

1398. MISO asserts that, if the Commission adopts the proposal, the Commission should modify the proposed requirement to allow the “proposed addition of a generating facility to an interconnection request as long as the interconnection customer does not request a change to the originally requested interconnection service level and the proposed addition to the generating facility is modeled the same way as the original generating facility.”²⁶⁶³

1399. Clean Energy Associations ask the Commission to clarify whether (1) generating facility size reductions, which could result in upgrade costs being shifted to others in the same

cluster, would be a material modification and (2) there is a reduction threshold that would trigger a material modification.²⁶⁶⁴

1400. Invenergy asks the Commission to clarify that its proposed requirement to evaluate requests to add a generating facility extends to requests for surplus interconnection service and that those requests cannot automatically be deemed a material modification.²⁶⁶⁵ Invenergy argues that, when the surplus interconnection request is below the total original LGIA interconnection rights and determined a material modification, the interconnection customer should have the opportunity to mitigate the identified issue so that it is no longer a material modification.

1401. Equinor Wind seeks clarification that the proposed definition of material modification excludes changes that (1) occur on the interconnection customer’s side of the point of interconnection and (2) do not alter the electrical output or electrical characteristics of a generating facility, adding that such changes should not be subject to the transmission provider’s discretion or evaluation of whether they amount to a material modification.²⁶⁶⁶ Equinor Wind argues that these clarifications will reduce uncertainty for interconnection customers and allow for some appropriate flexibility during generating facility development, particularly for offshore wind. Equinor Wind asserts that this clarification will not create reliability concerns because these changes do not have transmission system impacts.

1402. Indicated PJM TOs ask the Commission to clarify the relationship between the use of the term “material modification” in the *pro forma* LGIP and the term “materially modify” in NERC Reliability Standards FAC-001-3 (Facility Interconnection Requirements) and FAC-002-2 (Facility Interconnection Studies), asserting that the lack of clarity and overlap between the two terms could cause confusion and may result in additional delays to the interconnection process.²⁶⁶⁷ UMPA asks the Commission to clarify that adding a generating facility includes technology changes beyond electric storage resources, such as changing from wind to solar.²⁶⁶⁸

²⁶⁶⁴ Clean Energy Associations Initial Comments at 64.

²⁶⁶⁵ Invenergy Initial Comments at 51–52.

²⁶⁶⁶ Equinor Wind Reply Comments at 5–6.

²⁶⁶⁷ Indicated PJM TOs Initial Comments at 52–54 (noting NERC’s pending petition to change the term from “materially modify” to “qualified change”).

²⁶⁶⁸ UMPA Initial Comments at 8–9.

²⁶⁵⁷ PJM Initial Comments at 17–18.

²⁶⁵⁸ Illinois Commission Initial Comments at 13–14.

²⁶⁵⁹ Ørsted Reply Comments at 7.

²⁶⁶⁰ PPL Initial Comments at 22.

²⁶⁶¹ Pine Gate Initial Comments at 47–49.

²⁶⁶² Clean Energy Associations Initial Comments at 59–61.

²⁶⁶³ MISO Initial Comments at 108–12.

1403. With respect to who performs the study to determine the impact of adding a generating facility to an existing interconnection request, NARUC argues that, because the reliable operation of the bulk-power system is at issue, the Commission should clarify that the transmission providers determine whether (1) the addition of a generating facility requires a full interconnection service study and (2) the interconnection customers in the same cluster (or subsequent clusters) could be adversely impacted.²⁶⁶⁹ NARUC adds that the Commission should ensure that these processes are transparent, clearly communicated to interconnection customers, and allow interconnection customers to mitigate the impacts and revise their modifications requests.

1404. National Grid urges the Commission to allow ISO-NE and NYISO to maintain their processes that allow the transmission owner and RTO/ISO to evaluate the proposed change and the RTO/ISO to make the final determination as to whether the change constitutes a material modification.²⁶⁷⁰ Indicated PJM TOs argue that the final rule should have sufficient flexibility to allow PJM's proposed definition of "material modification" or permit PJM to obtain an independent entity variation for its proposed definition.²⁶⁷¹

1405. Omaha Public Power asks the Commission to allow transmission providers to continue their existing processes of facilitating the use of newer technologies such as storage to promote the stability of these processes rather than using the proposed process on the NOPR.²⁶⁷²

iii. Commission Determination

1406. We adopt, with modifications, the NOPR proposal to revise section 4.4.3 of the *pro forma* LGIP to require transmission providers to evaluate the proposed addition of a generating facility at the same point of interconnection prior to deeming such an addition a material modification, if the addition does not change the originally requested interconnection service level. We modify the NOPR proposal regarding section 4.4.3 of the *pro forma* LGIP, as discussed in greater detail below, to: (1) remove the 60-calendar day requirement for assessment of material modification; (2) limit the requirement that the transmission provider analyze a request

to add a generating facility to an existing interconnection request solely to requests received prior to the interconnection customer's return of the executed facilities study agreement to the transmission provider; and (3) create an exception for transmission providers that employ fuel-based dispatch assumptions from these requirements.

1407. We find that the record demonstrates that automatically deeming a request to add a generating facility to an existing interconnection request to be a material modification creates a significant barrier to access to the transmission system²⁶⁷³ and renders existing interconnection processes unjust and unreasonable. Such default treatment deters interconnection customers from proceeding with changes to a proposed generating facility that, after review, may be found not to be material, thereby reducing the number of generating facilities that can access the transmission system. This creates a barrier to the addition of a generating facility to an existing interconnection request that may improve the efficient use of the transmission system.

1408. We make several modifications to the NOPR proposal in response to concerns reflected in the record. First, we recognize that it may be difficult for some transmission providers to complete their material modification evaluations within 60 calendar days, depending on the details of their individual interconnection processes; therefore, we decline to adopt a 60-calendar day requirement. This preserves flexibility for transmission providers to address modification requests as is most efficient with their overall interconnection queue processing.

1409. Second, we modify the NOPR proposal to limit when an interconnection customer may request to add a generating facility to an existing interconnection request without such a request automatically being deemed a material modification. We are persuaded by commenters' arguments that allowing requests for evaluation to occur at any point in the interconnection process could impede the ability of the transmission provider to timely process its interconnection queue.²⁶⁷⁴ Thus, we modify the NOPR proposal, and transmission providers will only be required to evaluate

whether a request to add a generating facility to an existing interconnection request is material if it is submitted before the interconnection customer returns the executed facilities study agreement to the transmission provider. Once the executed facilities study agreement is returned, the transmission provider may decide to automatically treat requests to add a generating facility to an existing interconnection request as material modifications without review.

1410. We clarify that interconnection customers may continue to request changes to proposed generating facilities at any time in the interconnection process. Transmission providers that choose to evaluate modification requests later in the interconnection process than required by this rule (*i.e.*, after the interconnection customer returns the executed facilities study agreement to the transmission provider) may continue to do so. This final rule does not address how transmission providers evaluate modification requests after the facilities study agreement, and thus transmission providers are not required to include their modification processes after the facilities study agreement in their compliance filing with this final rule.

1411. We acknowledge that, as stated by commenters, transmission providers that employ fuel-based dispatch assumptions, such as MISO, may experience challenges with the proposal because the interconnection study assumptions in a fuel-based dispatch model vary depending on the fuel type; thus a request to add a generating facility of a different fuel type to an existing interconnection request would always constitute a modification that would require a study, thereby affecting the interconnection costs or study timing for lower- or equally-queued interconnection customers.²⁶⁷⁵ This type of request would most likely represent a material modification and would result in the loss of interconnection queue position under the tariff. Therefore, we modify the proposal to include an exception for transmission providers that use fuel-based dispatch assumptions in their interconnection studies.

1412. In response to EPSA's and Equinor Wind's request to provide a clearer standard definition of material modification,²⁶⁷⁶ we note that we are not changing the definition of material modification in this rule and do not believe a more prescriptive definition of material modification is reasonable

²⁶⁶⁹ NARUC Initial Comments at 33–35.

²⁶⁷⁰ National Grid Initial Comments at 40.

²⁶⁷¹ Indicated PJM TOs Initial Comments at 52–54.

²⁶⁷² Omaha Public Power Initial Comments at 13.

²⁶⁷³ See, e.g., AEE Initial Comments at 40–41; Public Interest Organizations Initial Comments at 45–47; SEIA Initial Comments at 38–39.

²⁶⁷⁴ See, e.g., Indicated PJM TOs Initial Comments at 52–54; Indicated PJM TOs Reply Comments at 38; MISO Initial Comments at 108–112; PJM Initial Comments at 6.

²⁶⁷⁵ See, e.g., MISO Initial Comments at 108–12.

²⁶⁷⁶ EPSA Initial Comments at 13; Equinor Wind Reply Comments at 5–6.

given the nuances in transmission providers' processes for assessing material modification, as described in the comments.²⁶⁷⁷ With respect to NARUC's request to clarify the flexibility transmission providers have in determining what constitutes a material reliability concern on the transmission system,²⁶⁷⁸ we clarify that this reform only requires transmission providers to evaluate interconnection modification requests. As stated above, it does not alter the definition of material modification.

Transmission providers may continue to find requests to be material if they impact the cost or timing of an equally or lower-queued interconnection customers.

1413. Commenters request clarification about the requirements for demonstrating site control when submitting a modification request.²⁶⁷⁹ In response, we clarify that, where a modification request to add a generating facility to an existing interconnection request requires the interconnection customer to adhere to a larger footprint to support a modified facility design, the interconnection customer must provide evidence of the required site control when submitting the modification request to the transmission provider. The requirements for site control that the interconnection customer must adhere to may depend on the timing of the request for the modification as well as the technology type of the requested additional generating facility, as discussed in the site control portion of this rule.²⁶⁸⁰

1414. Indicated PJM TOs also request that the Commission clarify the relationship between the term "material modification" in the *pro forma* LGIP and the term "materially modify" in NERC Reliability Standard FAC-001-3.²⁶⁸¹ We find that this request to further define the relationship between the terms is outside of the scope of this rulemaking. As discussed above, this final rule does not alter the preexisting definition of a material modification. Moreover, we note that the Commission recently approved a change to the NERC FAC Reliability Standards to change "materially modify" to "qualifying change."²⁶⁸²

1415. ClearPath seeks clarification regarding equipment changes, specifically whether under the proposed definition of material modification, a change in equipment that necessitates submitting new models and input data is a material modification and how equipment changes for non-synchronous resources will be treated under the proposed definition of material modification and the proposed deadlines.²⁶⁸³ We clarify that an equipment change, whether for synchronous or non-synchronous resources, that does not change the originally requested interconnection service level and does not qualify for evaluation under the transmission provider's technological change procedure must be evaluated by the transmission provider to determine if it is a material modification.

1416. Similarly, Equinor Wind seeks clarification that the proposed definition of material modification excludes changes that do not alter the electrical output or electrical characteristics of an interconnection request, suggesting that such changes should not be subject to the transmission provider's discretion or evaluation of whether they amount to a material modification.²⁶⁸⁴ We note that the definition of material modification is based on whether changes have a material impact on the cost or timing of any interconnection request with an equal or lower interconnection queue position, and thus we decline to categorically exclude certain types of changes from the definition.

1417. Clean Energy Associations ask the Commission to clarify whether: (1) generating facility size reductions, which could result in upgrade costs being shifted to others in the same cluster, would be a material modification; and (2) there is a reduction threshold that would trigger a material modification.²⁶⁸⁵ We clarify that, as per *pro forma* LGIP section 4.4.1, prior to the return of the cluster study agreement from the transmission provider to the interconnection customer, a decrease of up to 60% of electrical output (MW) must not be considered a material modification. In addition, per *pro forma* LGIP section 4.4.2, prior to the return of the executed interconnection facilities study, an additional 15% decrease of electrical output of the proposed project must not

be considered a material modification if the change occurred either through a decrease in plant size (MW) or a decrease in interconnection service level accomplished by applying transmission provider-approved injection-limiting equipment.

1418. Invenenergy, in discussing both surplus interconnection and material modification, contends that in circumstances where a surplus interconnection request is below the total LGIA interconnection rights and determined to be a material modification, the interconnection customer should have the opportunity to mitigate identified issues such that there is no longer a material modification.²⁶⁸⁶ We find this request to be outside the scope of this proceeding because the final rule is not proposing a process whereby interconnection customers may mitigate identified issues to avoid a material modification determination. In response to Invenenergy's request to clarify that the proposed reforms to require evaluation of requests to add a generating facility extend to requests for surplus interconnection service, the Commission declines to make such a change. The surplus interconnection service process is separate from the material modification process, and the two processes should not be conflated.

1419. We decline to adopt firm guidelines that transmission providers will follow to determine what constitutes a material modification when a request to add a generating facility to an existing interconnection request involves adding co-located generating facilities.²⁶⁸⁷ The varying configurations and varying electrical characteristics that interconnection customers may propose through this process may alter how they impact equally or lower-queued interconnection customers, and therefore we find that transmission providers must retain flexibility to evaluate these requests.

c. Availability of Surplus Interconnection Service

i. Need for Reform and NOPR Proposal

1420. In the NOPR, the Commission noted that Order No. 845 established a surplus interconnection service process to enable a new interconnection customer to use the unused portion of an existing interconnection customer's

²⁶⁷⁷ See, e.g., National Grid Initial Comments at 40.

²⁶⁷⁸ NARUC Initial Comments at 33–35.

²⁶⁷⁹ See, e.g., Indicated PJM TOs Initial Comments at 52.

²⁶⁸⁰ See *supra* section III.A.6.b of this final rule.

²⁶⁸¹ Indicated PJM TOs Initial Comments at 52.

²⁶⁸² See *N. Am. Elec. Reliability Corp.*, 181 FERC ¶ 61,126 at P 9 (2022) (explaining that replacing materially modify with qualified change "removes the possibility of confusion with the Commission's

defined term 'Material Modification' in its *pro forma* interconnection procedures and agreements").

²⁶⁸³ ClearPath Initial Comments at 10.

²⁶⁸⁴ Equinor Wind Reply Comments at 5–6.

²⁶⁸⁵ Clean Energy Associations Initial Comments at 64.

²⁶⁸⁶ Invenenergy Initial Comments at 51.

²⁶⁸⁷ We consider Shell's request for the Commission to define the differences between "co-located additive," "co-located non-additive," and "hybrid" resources, as well as Shell's request to specify the approach to charging energy, to be included among the requests for firm guidelines.

approved interconnection service through the inclusion of an additional generating facility behind a single point of interconnection.²⁶⁸⁸ The Commission also noted that Order No. 845 did not specify when a generating facility is considered to be “existing,” and preliminarily found that limiting the use of surplus interconnection service to only interconnection customers that have achieved commercial operation may be unjust, unreasonable, and unduly discriminatory or preferential.²⁶⁸⁹

1421. The Commission proposed to revise the *pro forma* LGIP to require transmission providers to allow interconnection customers to access the surplus interconnection service process once the original interconnection customer has an executed LGIA or requests the filing of an unexecuted LGIA.²⁶⁹⁰

ii. Comments

(a) Comments in Support

1422. The vast majority of commenters on this topic either support or do not oppose the proposal regarding surplus interconnection service, though some seek various clarifications.²⁶⁹¹ MISO states that surplus interconnection requests are the proper method for interconnection customers to add storage or a different generating facility fuel source to an interconnection request for an unbuilt generating facility²⁶⁹² and suggests that the Commission limit when the transmission provider must tender a surplus interconnection agreement to the interconnection customer to prevent a surplus interconnection agreement from being tendered prior to the original interconnection agreement becoming effective. MISO explains that its generator interconnection procedures allow for a surplus interconnection request to be made during the processing of the interconnection queue and adds that MISO is not required to tender a surplus interconnection agreement until the original

interconnection agreement has become effective because a surplus interconnection agreement is a derivative of the original interconnection agreement. According to MISO, under the proposed reform, the surplus interconnection agreement could be tendered prior to the original interconnection agreement becoming effective if the original interconnection agreement is filed unexecuted and becomes the subject of a disputed proceeding.

(b) Comments in Opposition

1423. Some commenters either argue that the NOPR proposal is inappropriate for their situation or oppose it outright, in some cases arguing against the underlying concept of surplus interconnection service. For instance, NYISO asserts that it does not provide for the use of “surplus” interconnection service and the Commission has previously granted NYISO an independent entity variation from the surplus interconnection service requirement.²⁶⁹³ NYISO asserts that this independent entity variation remains just and reasonable and accomplishes the purposes of Order No. 845 and the instant NOPR to make it easier for proposed generating facilities to interconnect without costly upgrades.²⁶⁹⁴

1424. ISO-NE states that allowing for co-location of generating facilities meets the need of allowing surplus interconnection service to be available after executing an LGIA, rendering the proposed reform unnecessary.²⁶⁹⁵ ISO-NE explains that, unless the existing generating facility is already commercial, there is no unused capability available at the point of interconnection. ISO-NE asserts that, to the extent the interconnection customer wants to co-locate generating facilities, it should be required to propose that as part of the original interconnection request.

1425. CAISO disagrees that allowing an interconnection customer to request surplus interconnection service after the original interconnection customer executes an LGIA would enable interconnection customers with unused interconnection capacity to let other generating facilities use that capacity earlier than allowed.²⁶⁹⁶ CAISO contends that interconnection customers do not request to use surplus interconnection service, and further

reform is unlikely to have much effect because surplus interconnection service is unavailable independent of the Commission’s definition. CAISO asserts that interconnection customers do not oversize their interconnection capacity; therefore, other interconnection customers cannot avail themselves of any “surplus” because it is already subscribed.

1426. PJM asserts that the current surplus interconnection service construct provides no value due to the challenges inherent in assessing the dynamic response associated with adding a surplus generating facility to the system while not infringing on the rights of the interconnection customers in the interconnection queue or available “headroom.”²⁶⁹⁷ Therefore, PJM contends that it sees no benefit in expanding its application and that PJM’s current surplus interconnection service is rarely used. PJM asserts that surplus interconnection service imposes overhead costs without providing value to interconnection customers wishing to interconnect.

1427. In response to PJM and CAISO’s comments, SEIA replies that both PJM and CAISO take an overly narrow approach to surplus interconnection service and that past use of surplus interconnection service should not bar making the service available to future requests to add storage to a generating facility.²⁶⁹⁸

(c) Comments on Specific Proposal

1428. Other commenters argue that, at least in some situations, surplus interconnection service should be available even earlier than proposed in the NOPR. For instance, Ameren asserts that there is no need to restrict the request to an executed, or requested unexecuted, LGIA.²⁶⁹⁹ Ameren contends that, under the Commission’s proposal, MISO and the interconnection customer would have finalized the network upgrades and system impact study only to go back to assess what surplus interconnection capacity would have been available. Therefore, Ameren asks the Commission to allow for regional flexibility. Omaha Public Power likewise recommends that the Commission allow existing transmission provider processes that are facilitating new technologies to continue.²⁷⁰⁰

1429. Pine Gate favorably cites MISO’s process for surplus interconnection service and asserts that the Commission should expand its

²⁶⁸⁸ NOPR, 179 FERC ¶ 61,194 at P 262.

²⁶⁸⁹ *Id.* P 263.

²⁶⁹⁰ *Id.* P 264.

²⁶⁹¹ AEE Initial Comments at 41; AEP Initial Comments at 5, 44–45; APS Initial Comments at 21; Clean Energy Associations Initial Comments at 61; CREA and NewSun Initial Comments at 91; Elevate Initial Comments at 11–12; Enel Initial Comments at 79; Eversource Initial Comments at 34; Iowa Commission Initial Comments at 4; NARUC Initial Comments at 36; National Grid Initial Comments at 41; NextEra Initial Comments at 37; NRECA Initial Comments at 44; Omaha Public Power Initial Comments at 13; PacifiCorp Initial Comments at 40; SEIA Initial Comments at 39; Shell Initial Comments at 36; SPP Initial Comments at 24.

²⁶⁹² MISO Initial Comments at 113–14.

²⁶⁹³ NYISO Initial Comments at 49 (citing *N.Y. Indep. Sys. Operator, Inc.*, 170 FERC ¶ 61,117, at P 98 (2020)).

²⁶⁹⁴ *Id.* at 50.

²⁶⁹⁵ ISO-NE Initial Comments at 40.

²⁶⁹⁶ CAISO Initial Comments at 32–33.

²⁶⁹⁷ PJM Initial Comments at 65.

²⁶⁹⁸ SEIA Reply Comments at 23–25.

²⁶⁹⁹ Ameren Initial Comments at 28.

²⁷⁰⁰ Omaha Public Power Initial Comments at 13.

current proposal to permit interconnection customers to access the surplus interconnection service process upon completion of the cluster restudy phase.²⁷⁰¹ Invenergy states that the Commission should permit requests for surplus interconnection service after an interconnection request has an executed facilities study agreement.²⁷⁰² Invenergy contends that the Commission could further clarify that an LGIA must be in place for the initial facility before any LGIA for the surplus interconnection service can be tendered. Invenergy asserts that, if the Commission does not modify the NOPR, it should clarify that transmission providers like MISO that have existing practices under which surplus interconnection service can be requested earlier in the process may continue those existing practices in compliance filings after any final rule may become effective. Invenergy also states that the Commission should reinforce its commitment in Order No. 845 that surplus interconnection service is available up to the maximum level allowed under the original interconnection agreement.²⁷⁰³ According to Invenergy, some transmission providers significantly limit an interconnection customer's surplus interconnection rights by deeming an otherwise permitted request a material modification except in the limited situation of direct current (DC)-coupled behind-the-meter storage, which effectively precludes surplus interconnection service in all other circumstances under a standard that is not well-defined or explained.

1430. Elevate encourages the Commission to consider modifying the duration of the period in which an interconnection customer taking surplus interconnection service can continue to operate following the original, host generating facility's retirement.²⁷⁰⁴ Elevate contends that, although an interconnection customer taking surplus interconnection service may operate for up to a year following the original generating facility's retirement, a one-year period is too short when it may take four years or more to navigate the interconnection process. According to Elevate, a surplus interconnection customer should be able to operate sufficiently long following the original generating facility's retirement that it has the ability to obtain permanent interconnection service through the submission of a new interconnection

request.²⁷⁰⁵ Elevate contends that this will ensure that generation capacity that has been fully constructed and is contributing to system reliability is not unnecessarily forced offline due to interconnection queue backlogs beyond their control.

(d) Requests for Clarification

1431. Shell contends that the Commission should clarify that transmission providers cannot deny surplus interconnection capacity except where (1) the total amount of interconnection service, measured in MW, at the point of interconnection has increased, or (2) there will be a reliability risk to the relevant transmission system.²⁷⁰⁶

1432. NARUC asks the Commission to clarify in the *pro forma* LGIP that an interconnection customer that has been fully studied and has an executed LGIA, or has filed an unexecuted LGIA, should be considered an existing facility for purposes of surplus interconnection service.²⁷⁰⁷ NARUC asserts that this clarification will increase efficiency in interconnection queues throughout the planning regions and ensure that available interconnection capacity can be used efficiently.

1433. Enel requests that the Commission specify that parallel, simultaneous operation and injection of two distinct, alternating current (AC)-coupled generating facilities is an acceptable configuration for surplus interconnection service so long as the total injection of energy at the point of interconnection does not exceed the interconnection service level.²⁷⁰⁸

1434. APS and PacifiCorp ask the Commission to clarify that no surplus can be provided if the LGIA of the original interconnection request is suspended.²⁷⁰⁹ PacifiCorp explains that, if the underlying LGIA is suspended, then there is no guarantee that the facilities required for interconnection will be installed.²⁷¹⁰ APS further asserts that, if an interconnection customer requests to go into suspension after a surplus request is granted, then that would also require the surplus interconnection to be suspended.²⁷¹¹ PacifiCorp asserts that any work the transmission provider were to undertake relating to the surplus interconnection service may be wasted effort if the LGIA

never comes out of suspension.²⁷¹² PacifiCorp asks the Commission to clarify that, if the original surplus interconnection request exceeds its permitted suspension period, both the original LGIA and any surplus interconnection service shall be terminated.

1435. Idaho Power requests clarification as to whether the Commission intends for the surplus interconnection service process to be used for an interconnection customer that owns a generating facility, either in-service or with an executed interconnection agreement, to add energy storage after the interconnection agreement is executed, or if the Commission intends for these additions to be evaluated under *pro forma* LGIA article 5.19 (Modification).²⁷¹³

iii. Commission Determination

1436. We adopt the NOPR proposal to revise section 3.3.1 of the *pro forma* LGIP to require transmission providers to allow interconnection customers to access the surplus interconnection service process once the original interconnection customer has an executed LGIA or requests the filing of an unexecuted LGIA.

1437. We find, based on the record, that this reform will enable interconnection customers with unused interconnection service to let other generating facilities use that interconnection service earlier than is currently allowed and, therefore, increases overall efficiency of the interconnection queue.²⁷¹⁴ Because we find this reform to be just and reasonable, to remedy the unjust and unreasonable rates caused by the limited ability to use surplus interconnection service today and ensure that interconnection customers are able to interconnect in a reliable, efficient, transparent, and timely manner, we decline to adopt alternative proposals suggested by commenters.

1438. We find unpersuasive the comments from various RTOs/ISOs opposing the NOPR proposal.²⁷¹⁵ To the extent that they oppose the surplus interconnection service process approved by the Commission in Order No. 845, we find their arguments to be a collateral attack on the Commission's findings in Order No. 845 and irrelevant for purposes of determining whether the instant proposal is just and reasonable. Further, consistent with the NOPR, we

²⁷⁰⁵ *Id.* at 12 (citing Order No. 845, 163 FERC ¶ 61,043 at P 506).

²⁷⁰⁶ Shell Initial Comments at 36.

²⁷⁰⁷ NARUC Initial Comments at 36.

²⁷⁰⁸ Enel Initial Comments at 79.

²⁷⁰⁹ APS Initial Comments at 21; PacifiCorp Initial Comments at 40.

²⁷¹⁰ PacifiCorp Initial Comments at 40.

²⁷¹¹ APS Initial Comments at 21.

²⁷¹² PacifiCorp Initial Comments at 40–41.

²⁷¹³ Idaho Power Initial Comments at 14.

²⁷¹⁴ *See, e.g.*, AEE Initial Comments at 41.

²⁷¹⁵ CAISO Initial Comments at 32–33; ISO-NE Initial Comments at 40; NYISO Initial Comments 49–50; PJM Initial Comments at 65.

²⁷⁰¹ Pine Gate Initial Comments at 49–50.

²⁷⁰² Invenergy Initial Comments at 50.

²⁷⁰³ *Id.* at 50–51 (citing Order No. 845, 163 FERC ¶ 61,043 at P 475).

²⁷⁰⁴ Elevate Initial Comments at 11–12.

continue to find that expanding the availability of surplus interconnection service beyond those entities that have achieved commercial operation will address the Commission's concerns regarding undue restrictions on access to this surplus interconnection service,²⁷¹⁶ thereby making it available to a broader group of potential interconnection customers and achieving the efficiencies discussed above.

1439. We are also not persuaded by either Pine Gate's or Ameren's arguments²⁷¹⁷ to alter the NOPR proposal to require transmission providers to allow interconnection customers to access the surplus interconnection service process prior to the LGIA phase or Invenenergy's argument to allow requests for surplus interconnection service once there is an executed facilities study agreement.²⁷¹⁸ We find that allowing interconnection customers to access the surplus interconnection service process once the original interconnection customer obtains an executed LGIA, or requests the filing of an unexecuted LGIA, is appropriate because prior to that stage, the network upgrades necessary to create the identified amount of surplus interconnection service may not have been fully identified, let alone begun the process of being placed into service.

1440. In response to APS's and PacifiCorp's requests for clarification regarding suspensions,²⁷¹⁹ we clarify that: (1) if the LGIA of the original interconnection request is suspended, then any submitted requests for surplus interconnection service are likewise suspended, and new requests for surplus interconnection service may not be submitted, until after the suspension is lifted; and (2) if the original LGIA is terminated, including for exceeding the three-year suspension period (pursuant to *pro forma* LGIA article 5.16), any related surplus interconnection service allowed as a result of the original LGIA will be terminated because surplus interconnection service is dependent upon the underlying interconnection service used by existing generating facilities.

1441. In response to NARUC's request to clarify that an interconnection customer that has been fully studied and has an executed LGIA, or that has requested the filing of an unexecuted LGIA, should be considered an existing

facility for purposes of surplus interconnection service, we decline to make such clarification, but reiterate that where an interconnection customer has executed the LGIA, or requested that the LGIA be filed unexecuted, interconnection customers may submit surplus interconnection service requests to the transmission provider.

1442. We find that Enel's and Shell's respective requests²⁷²⁰ for clarification regarding establishing parameters on surplus interconnection service are outside the scope of this proceeding because this final rule is not proposing to modify eligibility for surplus interconnection service as established in Order No. 845.

1443. We also find that Elevate's request²⁷²¹ for the Commission to modify the duration in which an interconnection customer taking surplus interconnection service can continue to operate following the original, host generating facility's retirement is outside the scope of this proceeding because this final rule is not proposing to modify the length of time for which surplus interconnection service may be provided after the original generating facility retires.

1444. In response to Idaho Power's request for clarification regarding whether the Commission intends for the surplus interconnection service process to be used for an interconnection customer that owns a generating facility with an executed or unexecuted LGIA to later add energy storage,²⁷²² the answer depends upon how the energy storage facility will be used. If, for example, it is used only to firm up the underlying generating facility (e.g., a wind or solar power plant) without ever injecting in excess of the original interconnection service level, then surplus interconnection service may be used.²⁷²³ If, on the other hand, the new energy storage facility and the existing generating facility will be configured to inject together and exceed the original interconnection service limit, then surplus interconnection service may not be used.

1445. In response to Invenenergy's requests,²⁷²⁴ we clarify that the original interconnection customer must have an LGIA in place, either executed or requested to be filed unexecuted with

the Commission, prior to tendering any LGIA for surplus interconnection service. With respect to Invenenergy's request for flexibility for transmission providers that currently allow requests for surplus interconnection service before the LGIA phase, we note that transmission providers can propose deviations from the requirements adopted in this final rule and demonstrate how those deviations satisfy the standards discussed in section IV of this final rule, which the Commission will consider on a case-by-case basis.

1446. In response to Invenenergy's request to clarify that proposed reforms to require evaluation of requests to add a generating facility to an interconnection request extend to requests for surplus interconnection service, we clarify that the revisions to the modification process do not extend to the surplus interconnection service process. We note that the modification process revisions would be used by an interconnection customer while undergoing the interconnection study process, whereas the surplus interconnection process revisions would be used after the interconnection study process is complete and the interconnection customer has an executed LGIA, or an unexecuted and filed LGIA.

1447. Invenenergy requests that the Commission reiterate and reinforce its commitment in Order No. 845 that surplus interconnection service is available up to the maximum level allowed under the original interconnection agreement. Invenenergy contends that, when the surplus interconnection service request is below the total LGIA interconnection rights and determined to be a material modification, the interconnection customer should have the opportunity to mitigate identified issues such that there is no longer a material modification. We decline Invenenergy's request because the final rule does not address revisions to how the surplus interconnection service process is conducted; rather, the final rule addresses when a request for surplus interconnection service may be submitted.

d. Operating Assumptions for Interconnection Studies

i. Need for Reform and NOPR Proposal

1448. In the NOPR, the Commission stated that, as newer technologies with operating parameters that differ from traditional generation seek to interconnect, it is necessary for transmission providers to use

²⁷¹⁶ NOPR, 179 FERC ¶ 61,194 at P 263.

²⁷¹⁷ Ameren Initial Comments at 28; Pine Gate Initial Comments at 50.

²⁷¹⁸ Invenenergy Initial Comments at 49.

²⁷¹⁹ APS Initial Comments at 21; PacifiCorp Initial Comments at 40–41.

²⁷²⁰ Enel Initial Comments at 79; Shell Initial Comments at 36.

²⁷²¹ Elevate Initial Comments at 11–12.

²⁷²² Idaho Power Initial Comments at 14.

²⁷²³ See Order No. 845, 163 FERC ¶ 61,043 at P 472 ("[S]urplus interconnection service cannot exceed the total interconnection service already provided by the original interconnection customer's LGIA.").

²⁷²⁴ Invenenergy Initial Comments at 50.

assumptions that accurately reflect “the operating parameters of electric storage resources and co-located resources containing electric storage resources (including hybrid resources) so that the unique operating characteristics of such resources are taken into account during the generator interconnection process.”²⁷²⁵ The Commission stated that, because the *pro forma* LGIP includes only general requirements regarding the operating assumptions for generating facilities in interconnection studies, it was concerned that “electric storage resources, and co-located resources containing electric storage resources, may be studied under inappropriate operating assumptions that result in assigning unnecessary network upgrades and increased costs to interconnection customers.”²⁷²⁶ The Commission therefore preliminarily found that “the lack of realistic operating assumptions used in interconnection studies for electric storage resources and co-located resources containing electric storage resources (including hybrid resources) can result in excessive and unnecessary network upgrades and may hinder the timely development of new generation, thereby stifling competition in the wholesale markets, and resulting in rates, terms, and conditions that are unjust and unreasonable.”²⁷²⁷ Further, the Commission preliminarily found that “the lack of appropriate operating assumptions used in interconnection studies may present an unduly discriminatory or preferential barrier to the interconnection of electric storage resources and co-located resources containing electric storage resources (including hybrid resources).”²⁷²⁸

1449. The Commission proposed to revise the *pro forma* LGIP to require transmission providers, at the request of the interconnection customer, to use “operating assumptions for interconnection studies that reflect the proposed operation of an electric storage resource or co-located resource containing an electric storage resource (including hybrid resources)—i.e., whether the interconnecting resource will or will not charge during peak load conditions, unless good utility practice, including applicable reliability standards, otherwise require the use of different operating assumptions.”²⁷²⁹ The Commission noted that, under this proposed reform, such operating assumptions shall be proposed by the

interconnection customer as part of its initial interconnection request.

1450. The Commission further proposed that such operating assumptions must be “reasonably representative of the likely behavior of an electric storage resource or co-located resource containing an electric storage resource (including hybrid resources) and, in cases where available, consistent with the historical performance of such resources in the relevant geographic area.”²⁷³⁰ Further, to help facilitate alignment between as-studied and real-world conditions, the Commission proposed to allow transmission providers to hold interconnection customers to the intended operation of their electric storage resource or co-located resource containing an electric storage resource (including hybrid resources) by: (1) memorializing these operating restrictions in the interconnection customer’s LGIA; and (2) requiring control technologies (software and/or hardware) in cases where appropriate, such as for electric storage that wishes to limit its operations, with such protection devices included in Appendix C of the LGIA.²⁷³¹ The Commission noted that, “if the interconnection customer fails to operate its electric storage resource or co-located resource containing an electric storage resource (including hybrid resources) in accordance with these conditions as memorialized in the LGIA, the interconnection customer may be considered in breach and the transmission provider may pursue termination pursuant to article 17 of the LGIA.”²⁷³² Additionally, the Commission proposed to “require that any transmission provider that requires electric storage resources or co-located resources containing an electric storage resource (including hybrid resources) to install control technologies to publicly post a list of acceptable control technologies.”²⁷³³ Furthermore, the Commission proposed revisions to the description of the ERS and NRIS studies in sections 3.2.1.2. and 3.2.2.2 of the *pro forma* LGIP to accommodate this proposed reform.

1451. The Commission proposed to require that interconnection customers clearly communicate to the transmission provider “the expected operating patterns of the electric storage resource, or co-located resource containing an electric storage resource (including hybrid resources).”²⁷³⁴ In addition, for

“the electric storage resource or co-located resource containing an electric storage resource (including hybrid resources) to be studied, the Commission proposed to require the interconnection customer to specify, as part of its initial interconnection request, the ancillary services that it would or would not provide so that the proper operating assumptions may be made in interconnection studies.”²⁷³⁵ Under the Commission’s proposal, regardless of any changes to operating assumptions, “all electric storage resources, or co-located resources containing an electric storage resource (including hybrid resources) would be required to continue to meet all requirements in the *pro forma* LGIP and *pro forma* LGIA, as well as all applicable reliability standards.”²⁷³⁶

1452. The Commission noted that, under this proposed reform, each transmission provider’s operating assumptions used in their interconnection studies must take into consideration the services that the generating facility would provide and the timing of such services, as applicable.²⁷³⁷ The Commission further noted that this could be done in a variety of ways, and the transmission provider would have flexibility to consider services as best fits its transmission system.

1453. The Commission proposed to clarify that “this proposed reform to study electric storage resources, or co-located resources containing an electric storage resource (including hybrid resources) according to their planned operating assumptions at the request of the interconnection customer as part of its initial interconnection request is intended to mean the operating assumptions for withdrawals of energy (e.g., the charging of an energy storage resource) in interconnection studies.”²⁷³⁸ The Commission proposed to require that the interconnection customer include in its initial interconnection request any operating assumptions for withdrawals of energy to be used by the transmission provider in interconnection studies.

1454. The Commission sought comment on whether the Commission should expand this reform to address operating assumptions for additional generating facility technologies that may currently be inaccurately modeled, such as variable energy resources.²⁷³⁹ For example, the Commission sought

²⁷²⁵ NOPR, 179 FERC ¶ 61,194 at P 279.

²⁷²⁶ *Id.*

²⁷²⁷ *Id.*

²⁷²⁸ *Id.*

²⁷²⁹ *Id.* P 280.

²⁷³⁰ *Id.*

²⁷³¹ *Id.*

²⁷³² *Id.*

²⁷³³ *Id.*

²⁷³⁴ *Id.* P 281.

²⁷³⁵ *Id.*

²⁷³⁶ *Id.*

²⁷³⁷ *Id.* P 282.

²⁷³⁸ *Id.* P 285.

²⁷³⁹ *Id.* P 286.

comment on whether to expand this proposal to specify only that, at the interconnection customer's request, a transmission provider must not study generating facilities in ways that are not physically possible, for example studying a solar resource as producing energy at night, or a wind resource as producing maximum energy during low wind seasons, or other circumstances wherein any resource is studied in ways that are not physically possible, subject to the same proposed requirement that the generating facility be equipped with sufficient control technology, such as special protection systems, and/or subject to penalties for deviating from dispatch. The Commission sought comment on whether other operating assumptions, in addition to the assumption that electric storage resources withdraw energy during peak load periods, should be considered as part of this proposed reform.

1455. The Commission sought comment on how to define the study parameters (e.g., should the Commission define the peak load period and/or net peak load during which transmission providers must not study a generating facility as withdrawing energy, and if so how).²⁷⁴⁰

1456. The Commission also sought comment on “whether, and if so how, to define firm and non-firm charging for electric storage resources and require transmission providers to define study criteria and possible ways to interconnect related to both firm and non-firm charging.”²⁷⁴¹ The Commission sought comment on whether providing such options would improve the effectiveness of this proposed reform and whether there would be other consequences of implementing such an approach. With respect to the definition of firm and non-firm charging, the Commission sought comment on whether to: (1) define firm charging service as interconnection service that allows the interconnection customer to be eligible to receive electric energy in a manner comparable to a transmission provider's load; and (2) define non-firm charging service as interconnection service that allows the interconnection customer to be eligible to receive electric energy using the existing firm or non-firm capacity of the transmission system on an “as available” basis, noting that in an RTO/ISO with market-based congestion management, a generating facility with non-firm charging service must respond to the RTO's/ISO's dispatch

instructions, including curtailment to manage congestion.²⁷⁴²

ii. Comments

(a) Comments in Support

1457. Many commenters support the Commission's proposal to revise the *pro forma* LGIP to require transmission providers, at the request of the interconnection customer, to use operating assumptions for interconnection studies that reflect the proposed operation of an electric storage resource or co-located resource containing an electric storage resource (including hybrid resources)—i.e., whether the interconnecting generating facility will or will not charge during peak load conditions, unless good utility practice, including applicable reliability standards, otherwise require the use of different operating assumptions.²⁷⁴³

1458. Many commenters agree with the Commission that the lack of realistic operating assumptions used in interconnection studies for electric storage resources and co-located resources containing electric storage resources (including hybrid resources) can result in excessive and unnecessary network upgrades and hinder the timely development of new generation, thereby stifling competition in the wholesale markets, and resulting in rates, terms, and conditions that are unjust and unreasonable.²⁷⁴⁴ These commenters also agree that using unrealistic operating assumptions in interconnection studies creates an

unduly discriminatory or preferential barrier to the interconnection of electric storage resources and co-located resources containing electric storage resources (including hybrid resources).

1459. Many commenters agree with the Commission that the assumptions used in interconnection studies for the charging of electric storage resources should closely resemble the expected “real-world” operation of such resources.²⁷⁴⁵ For example, NextEra asserts that operating assumptions should reflect the rational economic dispatch of electric storage and co-located resources and that interconnection customers with electric storage resources should be allowed to request a lower maximum allowed charging rate in place of being assigned network upgrade cost allocations.²⁷⁴⁶ Shell asserts that parameters used to study storage should consider market conditions.²⁷⁴⁷

1460. Many commenters argue that assuming in an interconnection study that an electric storage resource will withdraw energy during peak demand similar to firm end-use customer demand fails to recognize the real-time attributes of electric storage resources, such as the ability to respond within seconds to prices and dispatch signals from the transmission provider.²⁷⁴⁸ For example, NARUC and NESCOE argue that studying electric storage resources using worst-case operating assumptions, such as withdrawing energy during peak demand, ignores the real-time attributes and benefits of these technologies, such as their ability to respond within seconds to prices and dispatch signals from transmission providers and inject electricity during peak demand conditions.²⁷⁴⁹ Further, Union of Concerned Scientists asserts that modeling storage as charging during times of peak demand penalizes interconnection customers for trying to locate electric storage resources in places where they are most needed (e.g., load pockets) because the study inappropriately models electric storage resources as contributing to the problem

²⁷⁴² *Id.*

²⁷⁴³ ACE–NY Initial Comments at 14–15; AEE Initial Comments at 41–42; AES Clean Energy Initial Comments at 24; Alliant Energy Initial Comments at 8; Bonneville Initial Comments at 22–23; CESA Initial Comments at 14–15; Clean Energy Associations Initial Comments at 52; Clean Energy Associations Reply Comments at 10; CREA and NewSun Initial Comments at 91–92; Cypress Creek Initial Comments at 9; Environmental Defense Fund Initial Comments at 6; Environmental Defense Fund Reply Comments at 8–9; ELCON Initial Comments at 10; Elevate Initial Comments at 13; Interwest Reply Comments at 15; Longroad Reply Comments at 10–12; Microgrid Resources Initial Comments at 6; NARUC Initial Comments at 37; NextEra Initial Comments at 36; NESCOE Reply Comments at 18; NRECA Initial Comments at 10, 44; NY Commission and NYSEDA Initial Comments at 10; Pine Gate Initial Comments at 51; Public Interest Organizations Initial Comments at 47; R Street Initial Comments at 16; SEIA Initial Comments at 40; Shell Initial Comments, app. A at iii; Union of Concerned Scientists Reply Comments at 9–10.

²⁷⁴⁴ AEE Initial Comments at 42; Alliant Energy Initial Comments at 8; Clean Energy Associations Initial Comments at 52–53; Hydropower Commenters Initial Comments at 21–22; Longroad Reply Comments at 10–12; NARUC Initial Comments at 36–37; NESCOE Reply Comments at 18; Pine Gate Initial Comments at 51, 54; Public Interest Organizations Initial Comments at 47; rPlus Initial Comments at 6; SEIA Initial Comments at 40; SEIA Reply Comments at 27.

²⁷⁴⁵ Alliant Energy Initial Comments at 8; APPA–LPPC Initial Comments at 29; NextEra Initial Comments at 36–37; NY Commission and NYSEDA Initial Comments at 10; Pine Gate Initial Comments at 51; Shell Initial Comments, app. A at iii.

²⁷⁴⁶ NextEra Initial Comments at 37.

²⁷⁴⁷ Shell Initial Comments, app. A at iii.

²⁷⁴⁸ Clean Energy Alliance Initial Comments at 14–15; NARUC Initial Comments at 37; PacifiCorp Initial Comments at 41; Pattern Energy Initial Comments at 12; Pine Gate Initial Comments at 51; SEIA Initial Comments at 40; Union of Concerned Scientists Reply Comments at 10–11.

²⁷⁴⁹ NESCOE Reply Comments at 18 (citing NARUC Initial Comments at 36–37).

²⁷⁴⁰ *Id.* P 287.

²⁷⁴¹ *Id.* P 288.

of transmission congestion rather than relieving it.²⁷⁵⁰ AEP argues that some electric storage resources do occasionally charge during peak demand; however, AEP has no objection to electric storage resources being studied under a certain set of operating conditions as long as operating restrictions are imposed through interconnection agreements and the resource owner/operator recognizes that it must abide by dispatch orders and bear the consequences of any limitations on its operation that result in penalties.²⁷⁵¹

(b) Comments in Opposition

1461. Some commenters argue that the proposed reform is overly burdensome on transmission providers and could add time and complexity to the interconnection process.²⁷⁵² For example, NYISO opposes the proposed reform, arguing that it would not streamline the interconnection study process and instead would add significantly more complexity to the process and increase the time required to complete studies.²⁷⁵³

1462. Some commenters oppose the proposed reform due to reliability concerns.²⁷⁵⁴ PJM argues that the proposal would be extremely difficult to police and enforce and would not guarantee that units will operate within their studied parameters, putting PJM at operational risk.²⁷⁵⁵ Southern opposes the proposed reform, stating that transmission providers are ultimately responsible for planning for the safety and reliable operation of their transmission systems, which includes standard assumptions for interconnection studies.²⁷⁵⁶ Southern contends that it may be viable to provide an information-only scenario using the assumptions provided by the interconnection customer, but it would not be just and reasonable to allow interconnection customers to dictate the study assumptions for their electric storage, hybrid, or co-located resources. NYISO asserts that its interconnection studies are designed to capture extreme system scenarios to best maintain the reliability of the system and to be prepared for rare extreme conditions

and without such planning, the interconnection studies could fail to identify essential non-local network upgrades.²⁷⁵⁷ SDG&E argues that the reform may introduce undue risk into the interconnection study process and could lead to the transmission system being operated in an unstudied/unplanned state.²⁷⁵⁸

1463. However, several commenters disagree that the proposed reform will introduce undue risk into the interconnection study process and real-time operations.²⁷⁵⁹ CESA asserts that many transmission providers continue to use historical planning standards that do not consider the capability of advanced firmware and software controls to dispatch resources in accordance with operating assumptions that can provide much needed additional capacity to the transmission system, which may result in continued delays and inefficiencies in the interconnection process.²⁷⁶⁰

1464. NARUC suggests that, in RTO/ISO regions, independent market monitors may be well-positioned to track deviations from proposed operational limits in real-time operations.²⁷⁶¹ For non-RTO/ISO regions, NARUC contends that it may be appropriate for an independent transmission monitor or NERC regional reliability entity to serve in such a role.

(c) Comments on Specific Proposal

1465. Some commenters support the flexibility that the proposed reform provides on the basis that it would allow for better use of the transmission system or help facilitate the interconnection process while still allowing for adequate controls.²⁷⁶² NRECA cautions, however, that such flexibility should not come at the expense of the NOPR's overall goal of reducing speculative interconnection requests, withdrawals, and restudies.²⁷⁶³ APS also believes that operating assumptions used in interconnection studies should be limited to factors that can be automatically controlled by the interconnection customer; otherwise, system issues may occur when interconnection facilities are operating

outside of the assumptions used in the studies.²⁷⁶⁴ Although AEP generally supports the proposed reform because interconnection studies should be as accurate as possible, AEP notes that using operating assumptions provided by the interconnection customer may complicate studies and thus realistic study time frames must be adopted.²⁷⁶⁵

1466. Many commenters support the proposal to allow transmission providers to require the use of controls to ensure compliance with planned operation.²⁷⁶⁶ Clean Energy Associations argue that electric storage resources are controllable with a level of precision and speed unparalleled by conventional generating facilities, which provides transmission owners and providers and interconnection customers with new opportunities to accommodate transmission system reliability needs and efficiently use scarce transmission interconnection capacity.²⁷⁶⁷ Clean Energy Associations assert that the proposed reform would acknowledge the fact that electric storage resources are highly controllable through hardware and software controls.²⁷⁶⁸ SEIA asserts that power control systems, which electronically limit or control steady state currents to a programmable limit, can ensure that electric storage resources follow operating assumptions, and that their use is growing.²⁷⁶⁹

1467. Idaho Power states that it currently has a generator control and monitoring technology that can be leveraged for monitoring and controlling electric storage charging.²⁷⁷⁰ However, Idaho Power asserts that it will need to implement a control scheme for operators to view and control interconnection facilities in order to intermittently interrupt discharge and charging due to system conditions and related outages, which would likely require upfront and ongoing costs for both Idaho Power and interconnection customers. Idaho Power requests that the Commission consider including additional language to ensure that the

²⁷⁵⁰ Union of Concerned Scientists Reply Comments at 10–11.

²⁷⁵¹ AEP Initial Comments at 46–47.

²⁷⁵² Avangrid Initial Comments at 35; Enel Initial Comments at 74; ISO-NE Initial Comments at 40; NYISO Initial Comments at 51; PacifiCorp Initial Comments at 41–42; PJM Initial Comments at 67; Southern Initial Comments at 33.

²⁷⁵³ NYISO Initial Comments at 51.

²⁷⁵⁴ *Id.* at 67; SDG&E Initial Comments at 8; Southern Initial Comments at 33.

²⁷⁵⁵ PJM Initial Comments at 67.

²⁷⁵⁶ Southern Initial Comments at 33.

²⁷⁵⁷ NYISO Initial Comments at 51.

²⁷⁵⁸ SDG&E Initial Comments at 7.

²⁷⁵⁹ AEE Initial Comments at 41–42; CESA Reply Comments at 10 (citing SDG&E Initial Comments at 7); Clean Energy Associations Initial Comments at 58; R Street Initial Comments at 16.

²⁷⁶⁰ CESA Reply Comments at 10.

²⁷⁶¹ NARUC Initial Comments at 38.

²⁷⁶² APS Initial Comments at 22; Cypress Creek Initial Comments at 9; NRECA Initial Comments at 10, 44; rPlus Initial Comments at 6.

²⁷⁶³ NRECA Initial Comments at 44.

²⁷⁶⁴ APS Initial Comments at 22.

²⁷⁶⁵ AEP Initial Comments at 45.

²⁷⁶⁶ AEE Initial Comments at 41–42; APS Initial Comments at 22; Bonneville Initial Comments at 23; Clean Energy Associations Initial Comments at 52–58; ELCON Initial Comments at 10; Eversource Initial Comments at 36; NARUC Initial Comments at 38; PPL Initial Comments at 23; Public Interest Organizations Initial Comments at 49–50; SEIA Initial Comments at 40.

²⁷⁶⁷ Clean Energy Associations Initial Comments at 52.

²⁷⁶⁸ Clean Energy Associations Reply Comments at 10.

²⁷⁶⁹ SEIA Reply Comments at 26–27 (citing IREC Initial Comments, app. A at 43–48, 56, 159).

²⁷⁷⁰ Idaho Power Initial Comments at 15–16.

transmission provider can disconnect, or take other action, including seeking damages, in the event that the charging electric storage resource does not follow its schedule.

1468. Eversource states that it is essential for system operators and transmission planners to have sufficient visibility and controls in place to ensure that the transmission system is not placed in unstudied and potentially insecure N–1 contingency states.²⁷⁷¹ Eversource suggests that this issue, as well as other issues of grid dispatch, should be the subject of its own proceeding. Alternatively, Eversource requests that the Commission require that interconnection customers with proposed operational study assumptions have technological controls in place that automatically limit the electric storage facility's operation to the proposed operational parameters. Eversource further requests that the Commission reflect these requirements in the body of the *pro forma* LGIA, and not only the appendices.

1469. NARUC and Public Interest Organizations support the proposed requirement to consider resources to be in breach of their LGIA if they fail to operate as intended.²⁷⁷² NARUC asserts that such a consequence, in combination with technology and software that can limit the operations of an electric storage resource, should sufficiently mitigate behavior that deviates from planned.²⁷⁷³ Public Interest Organizations contend that installing control technologies would allow the transmission provider and interconnection customer to engage in an interactive dialogue to develop a set of operating assumptions that both satisfy the interconnection customer's operational desires and align with "good utility practice."²⁷⁷⁴

1470. rPlus generally supports the proposal but argues that the proposed termination requirements for the interconnection customer should be the operational characteristics not be met are too stringent and restrictive.²⁷⁷⁵ rPlus agrees that it is important to memorialize the studied operational assumptions in the interconnection agreement but asserts that it would benefit from the inclusion of additional language should deviation from the originally defined operational assumptions be beneficial.

Therefore, rPlus suggests that the Commission remove any explicit or implied requirement for electric storage resources not to charge during peak load periods and add language to retain the possibility of altering the operational characteristics when these changes would benefit the reliable and efficient operation of the transmission system or benefit ratepayers.

1471. Invenenergy supports the proposed reform to accommodate study assumptions that more reasonably approximate anticipated actual operations, but opposes requiring the studied operating conditions to be memorialized in the interconnection agreement.²⁷⁷⁶ Invenenergy states that, if there are concerns that an unexpected event may require a facility to occasionally operate outside those conditions, those concerns should be addressed through the regional transmission planning process, rather than forcing interconnection customers to fund upgrades that are rarely if ever needed.²⁷⁷⁷

1472. Several commenters suggest modifications to the proposal to better achieve the Commission's goal. For example, Pine Gate suggests that the Commission require transmission providers to use a uniform set of minimum interconnection study requirements (e.g., by eliminating the use of extreme contingency scenarios and overly conservative operational characteristics and strategies) to facilitate effective, efficient interconnection queue processing, which is an essential prerequisite of consumer protection.²⁷⁷⁸ With respect to the provision of ancillary services, Pine Gate requests that the interconnection customer not be required to definitively indicate the specific ancillary services that it would or would not provide in the initial interconnection request because it is not possible for the interconnection customer to know with certainty which ancillary services it may be eligible to provide when it is ultimately placed in service.²⁷⁷⁹ For this reason, Pine Gate requests that the Commission require the interconnection customer to list in the original interconnection request only whether it intends to provide ancillary services generally.²⁷⁸⁰

1473. Union of Concerned Scientists urges the Commission to direct in the final rule that technical capabilities offered by an interconnection customer

be appropriately recognized and used in the modeling of transmission impacts and their mitigation, including the ability to respond to contingencies and provide dynamic real or reactive power, which if omitted could lead to millions of dollars of costs to customers to provide such capability by other means.²⁷⁸¹

1474. Interwest supports allowing interconnection customers to request that transmission providers apply certain study assumptions to better approximate realistic operations and requiring transmission providers to apply congestion management practices to unusual events, developed through regional transmission planning processes, rather than building in assumptions assuming worst-case operations scenarios.²⁷⁸²

1475. Public Interest Organizations recommend that, if a transmission provider finds an interconnection customer's proposed operating assumptions to be in conflict with "good utility practice," the transmission provider should be required to provide the interconnection customer with a clear explanation of why the submitted operating assumptions are insufficient or inappropriate, and allow the interconnection customer to revise and resubmit the proposed operating assumptions as necessary, within a reasonable time period.²⁷⁸³

1476. Clean Energy Associations urge the Commission to define study parameters such as "peak load" and "net peak load."²⁷⁸⁴ Clean Energy Associations request that the Commission define "net peak load" as the period during which transmission providers must not study a facility as withdrawing energy. Clean Energy Associations note that in regions with high solar penetration, the net peak load hour diverges from the peak load hour and migrates to later in the day and, under these conditions, low prices during the peak load hour may create incentives for storage to charge, whereas prices would be high during the net peak load hour creating incentives to discharge. Therefore, Clean Energy Associations contend that using the net peak load as the period of study will ensure that studies continue to accurately reflect expected economic price response of storage as system conditions evolve.

²⁷⁷¹ Eversource Initial Comments at 35–36.

²⁷⁷² NARUC Initial Comments at 37; Public Interest Organizations Initial Comments at 48–50.

²⁷⁷³ NARUC Initial Comments at 37–38.

²⁷⁷⁴ Public Interest Organizations Initial Comments at 48.

²⁷⁷⁵ rPlus Initial Comments at 6.

²⁷⁷⁶ Invenenergy Initial Comments at 59–61.

²⁷⁷⁷ *Id.* at 61–62.

²⁷⁷⁸ Pine Gate Initial Comments at 55.

²⁷⁷⁹ *Id.* at 52.

²⁷⁸⁰ *Id.* at 53.

²⁷⁸¹ Union of Concerned Scientists Reply Comments at 13–14.

²⁷⁸² Interwest Reply Comments at 15.

²⁷⁸³ Public Interest Organizations Initial Comments at 47–48, 49.

²⁷⁸⁴ Clean Energy Associations Initial Comments at 53–54.

1477. NextEra and Clean Energy Associations urge the Commission to require transmission providers to use additional study assumptions beyond just whether electric storage and co-located resources (including hybrid resources) should charge during peak load periods. Both NextEra and Clean Energy Associations argue that transmission providers should not study electric storage resources as injecting energy during low load and shoulder periods because that does not reasonably reflect the rational economic behavior and typical operations of such resources.²⁷⁸⁵

1478. In contrast, MISO argues against requiring additional study assumptions for electric storage resources.²⁷⁸⁶ MISO notes that there may be times in the future when renewable resources are constrained or unavailable due to the lack of fuel (e.g., no wind or sun) such that the MISO transmission system will need to call upon electric storage resources for injection: but, if these resources are not permitted to discharge due to their operational assumptions, then the transmission system's reliance on those resources could lead to reliability risks.

1479. Several other commenters urge the Commission not to define study parameters, such as "peak load" or "net peak load," and instead allow for regional flexibility.²⁷⁸⁷ For example, rather than define peak load, Microgrid Resources states that the Commission should require individual evaluation of the expected operating assumptions for the resource(s) being studied.²⁷⁸⁸ Enel asserts that it does not believe clear and transparent criteria regarding the peak load period could be developed such that the limitations on a generating facility could appropriately be modeled with only a few power flow model "snapshots in time" serving as the basis for the restriction.²⁷⁸⁹

1480. Several commenters support eliminating unrealistic interconnection study assumptions for resource types other than electric storage resources, such as assuming that a solar facility will operate a night, or that a wind resource will produce maximum output during low-wind seasons.²⁷⁹⁰ Ameren,

Cypress Creek, Microgrid Resources, NARUC, Pine Gate, and rPlus all request that the Commission extend this reform to allow any resource type, not just electric storage or co-located resources, to request that interconnection studies be based on their particular operating assumptions and characteristics.²⁷⁹¹ NARUC further asserts that it is reasonable to allow interconnection customers to request that transmission providers not study interconnecting generating facilities in ways that are not physically possible, subject to the same proposed requirement that the generating facility be equipped with sufficient control technologies and penalties for deviations.²⁷⁹² Microgrid Resources urges the Commission to define microgrid in the tariff, noting particularly the inclusion of load, and to make clear that interconnection studies must be based on operating assumptions for the microgrid as a whole.²⁷⁹³

1481. Pattern Energy asserts that transmission providers should be required to update their operating assumptions annually, after stakeholder input.²⁷⁹⁴ Pattern Energy asserts that some transmission providers require light-load reliability analysis for wind resources but not for natural gas plants, which is unduly discriminatory.²⁷⁹⁵

1482. Some commenters support expanding the proposed reforms to the entire facility of hybrid or co-located resources. For instance, ENGIE recommends that interconnection customers submitting hybrid or co-located resources should be able to specify operating parameters across the entire generating facility, including variable energy resources, within their interconnection request to allow interconnection customers to reflect parameters such as solar-based charging of the electric storage resource more accurately.²⁷⁹⁶ Pine Gate states that co-located resources are typically studied independently, which requires studying the combined maximum injection of the two generating facilities that are co-located, despite the fact that studying in

this manner overestimates the impact on the transmission system and could trigger unnecessary network upgrades.²⁷⁹⁷ Pine Gate asserts that, consistent with the NOPR's proposals regarding operating assumptions for electric storage resources and co-located resources, the Commission should permit an interconnection customer to specify the proposed operation of all components of a co-located resource in its interconnection request.

SEIA contends that studying two, co-located resources as a single resource would be more accurate, as this would reflect the actual electrical impact to the transmission system.²⁷⁹⁸

1483. Although not entirely opposed to the proposed reform, PacifiCorp asserts that this proposed reform should not be extended to co-located and hybrid resources because monitoring and enforcing operational limitations could be complex, and incorporating operational limitations could complicate the cluster study process.²⁷⁹⁹ Nevertheless, PacifiCorp encourages the Commission to permit transmission providers to opt-in to extending this type of reform to hybrid resources if appropriate for their systems.

1484. Several other commenters urge the Commission to go further and require transmission providers to use more realistic operating assumptions without requiring the interconnection customer to request that transmission provider do so.²⁸⁰⁰ Public Interest Organizations argue that extending the reforms to all generation technologies would help prevent unduly discriminatory treatment.²⁸⁰¹ Therefore, Public Interest Organizations recommend that the Commission require transmission providers to work with interconnection customers to ensure operating assumptions reflect physical, operational, and market realities, "good utility practice," and applicable reliability standards. AES Clean Energy argues that the Commission should require transmission providers to establish a process to revisit and update operating assumptions of different resource types in consultation with stakeholders to ensure that these operating assumptions are realistic and approximately reflect

²⁷⁸⁵ NextEra Initial Comments at 37; Clean Energy Associations Initial Comments at 53.

²⁷⁸⁶ MISO Initial Comments at 116.

²⁷⁸⁷ Ameren Initial Comments at 29; Enel Initial Comments at 74; Idaho Power Initial Comments at 16; Microgrid Resources Initial Comments at 8; Shell Initial Comments, app. A at iii.

²⁷⁸⁸ Microgrid Resources Initial Comments at 8.

²⁷⁸⁹ Enel Initial Comments at 74.

²⁷⁹⁰ *Id.*; AES Clean Energy Initial Comments at 24–25; Ameren Initial Comments at 29; CREA and NewSun Initial Comments at 92; Cypress Creek

Initial Comments at 9–10; Invenenergy Initial Comments at 59–61; Microgrid Resources Initial Comments at 7–8; Pine Gate Initial Comments at 54; Public Interest Organizations Initial Comments at 48–49; R Street Initial Comments at 16; rPlus Initial Comments at 6.

²⁷⁹¹ Ameren Initial Comments at 29; Cypress Creek Initial Comments at 9–10; Microgrid Resources Initial Comments at 7; NARUC Initial Comments at 38; Pine Gate Initial Comments at 54; rPlus Initial Comments at 6.

²⁷⁹² NARUC Initial Comments at 38.

²⁷⁹³ Microgrid Resources Initial Comments at 7.

²⁷⁹⁴ Pattern Energy Initial Comments at 13.

²⁷⁹⁵ *Id.* (referencing PJM Manual 14B at 47, section 2.3.1.1).

²⁷⁹⁶ ENGIE Initial Comments at 11.

²⁷⁹⁷ Pine Gate Initial Comments at 45.

²⁷⁹⁸ SEIA Initial Comments at 38.

²⁷⁹⁹ PacifiCorp Initial Comments at 41–42.

²⁸⁰⁰ AES Clean Energy Initial Comments at 24–25; CREA and NewSun Initial Comments at 92; R Street Initial Comments at 16.

²⁸⁰¹ Public Interest Organizations Initial Comments at 49.

the expected actual operation of these resources.²⁸⁰²

1485. Shell supports the use of accurate modeling assumptions, including for variable energy resources, but argues that electric storage and renewable resources should not be treated in the same way because electric storage is dispatchable and renewable resources generally are not dispatchable.²⁸⁰³ Further, Shell asserts that the Commission should not assume all wind and solar resources are the same (and not dispatchable).

1486. AECI and NextEra oppose extending the proposed reform to other resources types.²⁸⁰⁴ NextEra opposes extending customized operating assumptions to wind and solar energy resources because doing so could unduly complicate subsequent operational decisions for the system operator and possibly restrict the system operator's ability to call on resources when needed.²⁸⁰⁵ AECI proposes to continue studying wind and solar resources as NRIS facilities that are dispatched at 100% to avoid potential reliability issues at the worst times.²⁸⁰⁶ MISO explains that it currently requires interconnection customers to be responsible for limiting and controlling their own dispatch in some conditions, but that it has no ability to monitor in real time if an interconnection customer violates its operating limits.²⁸⁰⁷ MISO states that it is unaware of any plant side control device or operational tool that MISO could use to prevent a generating facility's injection to enforce an electric storage resource's operating assumptions regarding discharging. Idaho Power states that it is unclear how a cluster study with multiple interconnection requests could be performed when accounting for numerous and potentially conflicting study parameters, such as "low wind season" for one interconnection customer but not for another.²⁸⁰⁸ Idaho Power seeks clarification of the definition of study parameters such as "low wind season."

1487. Some commenters support the Commission defining the terms firm and non-firm charging service for electric storage resources and requiring transmission providers to define study criteria to interconnect related to both

firm and non-firm charging.²⁸⁰⁹ For example, Clean Energy Associations support enabling interconnection customers with electric storage resources and hybrid resources to request non-firm transmission service for their charging energy, provided that transmission providers update study criteria and interconnection processes for such service accordingly and provide definitions of firm and non-firm charging service for electric storage resources.²⁸¹⁰ CESA argues that electric storage resources should not be forced to use one type of charging service over another since some resources may find it sufficient to take advantage of charging capacity as it is available whereas others may want or need greater assurances of charging capacity and are willing to pay for the requisite network upgrades.²⁸¹¹ CESA urges the Commission to set requirements as to how partial or full firm charging services should be offered on a flexible, as-requested basis, such that an interconnection customer can seek firm charging service for specific time windows or for a portion of the electric storage resource's nameplate or interconnection capacity. CESA asserts that, as discussed in the NOPR, accommodating firm and as-available charging service options should reflect the operating capabilities of the storage resource (*i.e.*, price responsive, dispatchable), achieve efficient market outcomes, and avoid expensive and unnecessary upgrades.²⁸¹²

1488. Clean Energy Associations assert that the Commission should direct transmission providers to use the following criteria for studying interconnection requests that opt for non-firm charging service: (1) the electric storage resource should have the option to receive electric energy using the existing firm or non-firm capacity of the transmission system on an "as available" basis; (2) any study of an electric storage resource charging should allow the interconnection customer to elect to use a lower charging level or a control technology to mitigate any identified constraints in lieu of being assigned network upgrades to address such constraints; and (3) the electric storage resource should receive information relative to any network upgrades, charging restrictions, or control requirements in advance of signing an interconnection

agreement.²⁸¹³ Clean Energy Associations urge the Commission to direct transmission owners to indicate conditions under which charging energy could be curtailed in interconnection agreements that include non-firm service for charging energy. Clean Energy Associations also caution that the Commission should avoid recategorizing charging energy of electric storage resources as a wholesale load, which would be contrary to the Commission's findings in Order No. 841.

1489. AEP suggests that clarifications would be needed for the proposed definitions of firm and non-firm charging to be effective. For example, AEP asserts that the proposed definitions for firm and non-firm charging service conflate different products and services required to charge an electric storage resource.²⁸¹⁴ AEP argues that charging service is not a form of interconnection service, nor is interconnection service referred to in the industry as firm or non-firm. According to AEP, it is the delivery service (*i.e.*, transmission and wholesale distribution service) that can be firm or non-firm and therefore the relevant question is whether, in the interconnection process, an electric storage resource can or needs to request to be studied as a "firm" or "non-firm" load for delivery purposes. AEP asserts that the Commission should recognize that, for electric storage resources, the interconnection cluster study process should include an analysis of transmission service. AEP notes that the Commission has permitted the California utilities to study the need for wholesale distribution upgrades required for charging on a firm basis as part of the interconnection study process. AEP argues that, if it is technically possible to distinguish loads, a load that affects human safety, health, and welfare directly should have priority over the charging of an electric storage resource, unless for example, if the electric storage resource will be used for blackstart after an outage, adding that the final rule does not need to interfere with emergency load shedding protocols.

1490. Shell asserts that the need for firm or non-firm transmission service will vary by generating facility, as well as by the usage pattern of the electric storage resource (*e.g.*, whether the electric storage resource is standalone or part of a hybrid resource that is AC-coupled, DC-coupled, or DC-tight-

²⁸⁰² AES Clean Energy Initial Comments at 24–25.

²⁸⁰³ Shell Initial Comments, app. A at iii.

²⁸⁰⁴ AECI Initial Comments at 8; NextEra Initial Comments at 37.

²⁸⁰⁵ NextEra Initial Comments at 37.

²⁸⁰⁶ AECI Initial Comments at 8.

²⁸⁰⁷ MISO Initial Comments at 116.

²⁸⁰⁸ Idaho Power Initial Comments at 16.

²⁸⁰⁹ CESA Initial Comments at 12–13; Clean Energy Associations Initial Comments at 54–56; ENGIE Initial Comments at 12.

²⁸¹⁰ Clean Energy Associations Initial Comments at 54.

²⁸¹¹ CESA Initial Comments at 12–13.

²⁸¹² *Id.* at 12.

²⁸¹³ Clean Energy Associations Initial Comments at 55–56.

²⁸¹⁴ AEP Initial Comments at 48–50.

coupled).²⁸¹⁵ Shell states that, if an electric storage resource is charging from the transmission system as non-firm load, and the resource owner is required to comply with the transmission provider's real-time dispatch orders to cease charging from the transmission system due to reliability concerns, then there is no need for long-term firm transmission service reservations to serve the electric storage resource. Shell contends that non-firm electric storage load should not be required to acquire transmission service prior to charging from the transmission system, as such charging will be captured by the revenue meter and can be billed at the transmission provider's non-firm point-to-point transmission rate at the end of the billing period.

1491. Xcel suggests that the evaluation of non-firm charging must assume a price and then the electric storage resource should be bound to that price.²⁸¹⁶ Xcel contends that, if an electric storage resource is studied as non-firm load but ends up offering to buy energy in the market above average market prices, the study will not represent the resulting dispatch. Therefore, Xcel recommends that electric storage resources and other non-firm load should be required to have a maximum bid price that is included in Attachment C of the *pro forma* LGIA.

1492. Some commenters oppose the Commission defining firm and non-firm charging or requiring transmission providers to define study criteria as part of this rulemaking.²⁸¹⁷ For example, PPL asserts that the Commission should leave defining such study parameters to the transmission providers.²⁸¹⁸

1493. Several commenters suggest clarifications to the proposed reform regarding the timing of submitting operating assumptions.²⁸¹⁹ Clean Energy Associations and ENGIE recommend that the Commission define a clear decision point in the interconnection study process before which interconnection customers may adjust operating assumptions and after which inputs remain constant.²⁸²⁰ APS suggests that the Commission modify the proposal to specify that any changes to the operating assumptions initially

provided by the interconnection customer would be considered a material modification.²⁸²¹

(d) Alternative Proposals and Requests for Further Process

1494. Enel argues that using power flow studies and assuming extreme transmission system conditions matches the concept of a firmer product well (e.g., for NRIS or transmission service studies), but applied to ERIIS studies it implies that an ERIIS resource cannot or will not curtail, absorb congestion costs, or be redispatched to mitigate transmission system disturbances, which goes beyond "as available" service and does not allow for lower-cost mitigation options.²⁸²² For these reasons, Enel recommends that the Commission direct transmission providers to replace power flow studies with Security Constrained Economic Dispatch analysis for ERIIS service studies instead of the Commission's proposed reform,²⁸²³ or in the alternative, require appropriately supported fuel-based dispatch assumptions in ERIIS and, where appropriate, NRIS study models.²⁸²⁴

1495. Several other commenters support requiring transmission providers to apply realistic fuel-based dispatch assumptions to all resource types.²⁸²⁵ Additionally, Invenenergy notes that both MISO and SPP already use realistic fuel-based dispatch assumptions in their interconnection study processes.²⁸²⁶ Although MISO believes that a fuel-based dispatch methodology would address the concerns stated in the NOPR about unrealistic operating assumptions, MISO also believes that study methods should be flexible to the unique needs of a region's stakeholders and that the Commission should allow flexibility regarding how a transmission provider conducts its studies.²⁸²⁷ MISO asserts that fuel-based dispatch enables more efficient generator interconnection because it recognizes that not all generating facilities will be dispatched up to their requested interconnection service at all times of the year and that some fuels will not be dispatched when other fuels are being dispatched.²⁸²⁸ MISO explains that its current fuel dispatch method also addresses

withdrawal for electric storage resources and was informed by operational data.²⁸²⁹

1496. Public Interest Organizations encourage the Commission to consider a requirement that would ensure operational and market realities are appropriately reflected in operating assumptions for the purposes of interconnection studies.²⁸³⁰ Public Interest Organizations state that this could include both operational practices and procedures as well as market-based price signals for curtailment and congestion management. Furthermore, Public Interest Organizations contend that fossil generating facilities should not be expected to generate at or near peak output during times when market prices are depressed, such as during periods of high renewable generation.²⁸³¹

1497. IREC asserts that interconnection application forms for small generating facilities should be updated to include information about electric storage resources and, where export controls are used, the type of export control and the equipment type and settings that will be used.²⁸³² IREC asserts that, in order for the interconnection process to fully recognize the ways electric storage resources can be designed and controlled to avoid transmission system constraints, utilities should consider operating profiles (which can include operating schedules) in their feasibility studies and system impact studies.²⁸³³

1498. Several commenters urge the Commission to hold a technical conference and/or open a new proceeding to sort out the complex details of this proposed reform.²⁸³⁴ For example, Clean Energy Associations note that the Commission could build a further evidentiary record regarding parameters for evaluating electric storage and other resources via a technical conference, with the aim of developing reasonable and consistent assumptions across regions.²⁸³⁵ SEIA urges the Commission to convene a technical conference in this proceeding

²⁸²⁹ *Id.* at 117–118 (citing MISO, Business Practice Manual-15, tbl. 6–1).

²⁸³⁰ Public Interest Organizations Initial Comments at 48.

²⁸³¹ *Id.* at 48–49 (citing Joe Daniel & Sam Gomberg, Union of Concerned Scientists, *Why Does Wind Energy Get Wasted?* (Nov. 16, 2021), <https://www.ucsusa.org/resources/wind-oversupply-myths>).

²⁸³² IREC Initial Comments at 15, attach. A.

²⁸³³ *Id.* at 16, attach. A.

²⁸³⁴ Clean Energy Associations Initial Comments at 53; Eversource Initial Comments at 35; ISO-NE Initial Comments at 40; Puget Sound Initial Comments at 13.

²⁸³⁵ Clean Energy Associations Initial Comments at 53.

²⁸¹⁵ Shell Initial Comments, app. A at iii.

²⁸¹⁶ Xcel Initial Comments at 46.

²⁸¹⁷ Ameren Initial Comments at 29; Idaho Power Initial Comments at 16; PPL Initial Comments at 23.

²⁸¹⁸ PPL Initial Comments at 23.

²⁸¹⁹ AES Clean Energy Initial Comments at 24; APS Initial Comments at 22; Clean Energy Associations Initial Comments at 56–57; ENGIE Initial Comments at 11.

²⁸²⁰ Clean Energy Associations Initial Comments at 56–57; ENGIE Initial Comments at 11.

²⁸²¹ APS Initial Comments at 22.

²⁸²² Enel Initial Comments at 75.

²⁸²³ *Id.* at 73, 75.

²⁸²⁴ *Id.* at 77–78.

²⁸²⁵ Enel Initial Comments at 77–78; Interwest Reply Comment at 15; Invenenergy Initial Comments at 60–61.

²⁸²⁶ Invenenergy Initial Comments at 60–61.

²⁸²⁷ MISO Initial Comments at 119.

²⁸²⁸ *Id.* at 117, 119.

to increase transmission provider certainty and confidence in the capabilities and testing of power control systems.²⁸³⁶ ISO-NE suggests that its concerns with the proposed reform may be better addressed through the establishment of a new category of interconnection service for the charging mode of electric storage devices as part of a separate proceeding.²⁸³⁷

(e) Comments Regarding Transmission Service Request Studies

1499. Clean Energy Associations note that some RTOs/ISOs determine the network upgrades needed to accommodate the charging of electric storage resources as part of the interconnection process, whereas other transmission providers do so in the transmission service request process.²⁸³⁸ Similarly, Xcel states that charging from the transmission system can be evaluated and approved through the designation of a new delivery point as part of a transmission service request.²⁸³⁹ Xcel further notes that it is unaware of a transmission service study process defined in the *pro forma* tariff that specifically evaluates non-firm load. Puget Sound states that it currently studies charging outside of the interconnection process and recognizes that charging could be considered a retail or a transmission product once the load piece is interconnected.²⁸⁴⁰ However, Puget Sound asserts that charging should be studied in the interconnection process, and the transmission provider should be granted more time to study this additional element. Puget Sound seeks clarity as to whether the proposed reform means that charging should now be considered part of the interconnection process, or if it can be part of the process should the transmission provider wish to include it. Further, Puget Sound argues that the Commission should standardize the *pro forma* LGIA to include specific operating assumptions to avoid interconnection request delays due to needing to file a non-conforming LGIA with the Commission and/or interconnection customer hesitancy.

1500. In contrast, Tri-State argues that it is inappropriate to study charging of electric storage resources within a generator interconnection study, and instead asserts that this type of analysis is best performed as a part of a

transmission service study, which covers delivery of energy to load or charging of an electric storage resource.²⁸⁴¹ Similarly, SPP argues that evaluating the impact of an electric storage resource's charging on the transmission system is better suited to other existing processes designed to assess load impact, such as the long-term transmission service study process, the short-term transmission service evaluation process, or market processes.²⁸⁴²

(f) Requests for Clarification and Flexibility

1501. Pine Gate requests that the Commission provide additional guidance regarding how transmission owners should perform studies and what network upgrade costs will be allocated to interconnection customers as a result.²⁸⁴³ Pine Gate states that transmission providers may need to study electric storage or co-located resources based on worst-case operating assumptions to understand the potential impact these resources would have on the transmission system absent operating restrictions being implemented. However, Pine Gate requests that the Commission clarify that network upgrade costs will not be assigned to the interconnection customer based on the unrealistic worst-case scenarios where there is agreement to implement operating restrictions.

1502. Elevate requests that the Commission clarify that the proposed reform applies to all study processes related to the interconnection of electric storage resources, including generator replacement, surplus interconnection, and requests to modify an existing generation resource, arguing that there is no reason for the Commission to require that transmission providers use realistic study parameters only in the context of requests for new interconnection service while allowing unrealistic study assumptions in other study processes.²⁸⁴⁴

1503. CAISO is concerned that, if not modified, the proposed reform would require transmission providers to provide firm charging options, whereas CAISO asserts that it does not currently provide firm charging service and stakeholders have never requested such service.²⁸⁴⁵ CAISO argues that requiring firm charging service would have a profound impact on organized electricity markets and asserts that if the

Commission proposes to allow electric storage resources to bypass economic dispatch and charge whenever they desire—even during stressed peak conditions—it should do so expressly and not in the context of a rulemaking addressing interconnection. CAISO asserts that the Commission should consider a simple clarification and avoid requiring transmission providers to offer firm charging, but instead require transmission providers that offer firm charging to allow interconnection customers to request it at the outset of their interconnection request.

1504. Environmental Defense Fund urges the Commission to clarify that an apparent failure to operate in accordance with agreed-upon conditions should be treated as a normal alleged default or breach as governed by article 17 of the *pro forma* LGIA, which would not result in immediate termination.²⁸⁴⁶ Environmental Defense Fund asserts that the requirements of article 17.1 of the *pro forma* LGIA state that a breaching party be given an opportunity to cure the breach and that termination is only available if the breaching party fails to cure or the breach is not capable of being cured. Similarly, Hydropower Commenters generally support the proposal, but believe that the proposed requirement that if an interconnection customer fails to operate its electric storage resource in accordance with the operating assumptions memorialized in the interconnection agreement, the interconnection customer may be considered in breach and the transmission provider may pursue termination of the interconnection agreement, is overly restrictive, will discourage the development of pumped storage projects, and should be modified.²⁸⁴⁷ Instead, Hydropower Commenters urge the Commission to provide for a standard cure period to address deviations, and penalties in the event of failure to cure.

1505. MISO states that the proposed reform is unclear because the text of the NOPR states that the Commission intends operating instructions to only apply to an electric storage resource's ability to describe how it will withdraw energy from the transmission system (*i.e.*, charge a battery), whereas the proposed *pro forma* LGIP revisions state that the operating assumptions can also apply to the manner the interconnection request states that the electric storage

²⁸³⁶ SEIA Initial Comments at 27.

²⁸³⁷ ISO-NE Initial Comments at 40.

²⁸³⁸ Clean Energy Associations Initial Comments at 54–55 (referencing, *e.g.*, ISO-NE Planning Procedure No. 5–6, at 18 (2022); MISO, Business Practice Manual 15-r24, at 53).

²⁸³⁹ Xcel Initial Comments at 46–47.

²⁸⁴⁰ Puget Sound Initial Comments at 11–12.

²⁸⁴¹ Tri-State Initial Comments at 22.

²⁸⁴² SPP Initial Comments at 25.

²⁸⁴³ Pine Gate Initial Comments at 52.

²⁸⁴⁴ Elevate Initial Comments at 13–14.

²⁸⁴⁵ CAISO Initial Comments at 34–35.

²⁸⁴⁶ Environmental Defense Fund Initial Comments at 6–7.

²⁸⁴⁷ Hydropower Commenters Initial Comments at 23–24.

resource will discharge.²⁸⁴⁸ MISO asks that the Commission clarify that the text of the NOPR is correct, and that the Commission did not intend to propose to allow electric storage resources to define the operating assumptions for how they will inject into the transmission system because, according to MISO, allowing interconnection requests to define operating assumptions regarding discharge would result in operational problems and would be discriminatory to other generating facilities.

1506. Hydropower Commenters suggest that the proposed reform be modified to include a simplified procedure for amending an interconnection customer's interconnection agreement to optimize the operating parameters of a pumped storage plant to the extent the transmission system is available.²⁸⁴⁹

1507. Some commenters note that several transmission providers already study electric storage resources using more realistic operating assumptions and assert that transmission providers should have the flexibility to determine the assumptions used when studying generating facilities interconnecting to the transmission system, including operating assumptions for electric storage resources, while also factoring in input from the interconnection customer.²⁸⁵⁰ NESCOE argues that the final rule should require transmission providers to work with the relevant states, transmission owners, electric storage resource interconnection customers, and stakeholders in their region to develop modeling assumptions for electric storage resources that are reasonable, realistic, and ensure the ability to interconnect is offered on a non-discriminatory basis.²⁸⁵¹

1508. National Grid recommends that the Commission provide regional flexibility to adopt or decline this proposed reform after transmission providers receive input from their stakeholders to determine if ad hoc proposed operating assumptions for interconnection requests are reasonable and appropriate or if certain pre-determined acceptable ranges of assumptions are consistent with reliability.²⁸⁵² APPA–LPPC argues that the proposal could entail creating entirely new models for off-peak

scenarios, not just running sensitivity analyses from an existing model, and therefore urges the Commission to give transmission providers the autonomy to determine whether additional transmission studies are needed.²⁸⁵³

iii. Commission Determination

1509. We adopt the NOPR proposal, subject to modification, to revise sections 3.1.2, 3.2.1.2, 3.2.2.2, 3.3.1, 3.4.2, 4.4.3, 7.3, 8.2, and Appendix 1 of the *pro forma* LGIP and article 17.2 and Appendix H of the *pro forma* LGIA to require transmission providers, at the request of the interconnection customer, to use operating assumptions in interconnection studies that reflect the proposed charging behavior of electric storage resources²⁸⁵⁴ (whether standalone, co-located generating facilities,²⁸⁵⁵ or part of a hybrid generating facility²⁸⁵⁶)—*i.e.*, whether the interconnecting generating facility will or will not charge during peak load conditions—unless good utility practice, including applicable reliability standards,²⁸⁵⁷ otherwise requires the use of different operating assumptions.²⁸⁵⁸ We clarify that studying electric storage resources, at the request of the interconnection customer, according to their planned operating assumptions means only the operating assumptions for withdrawals of energy (*e.g.*, the charging of an electric storage resource) in interconnection studies.

1510. We find that by more accurately reflecting the technical capabilities of electric storage resources in interconnection studies through the use of appropriate operating assumptions,

this reform ensures the reliable interconnection of new electric storage resources without overestimating their impact on the transmission system, thereby ensuring just and reasonable rates by avoiding excessive and unnecessary network upgrades that may hinder the timely development of new generating facilities that stifles competition in the wholesale market. We also find that reflecting the technical capabilities of electric storage resources through the use of appropriate operating assumptions in interconnection studies reduces unduly discriminatory or preferential barriers to the interconnection of electric storage resources.

1511. We adopt the proposed revisions, subject to modification, to section 3.1.2 of the *pro forma* LGIP to require transmission providers, at the request of the interconnection customer, to use operating assumptions that reflect the proposed charging behavior of an electric storage resource, allow interconnection customers to resubmit their operating assumptions if the transmission provider finds the originally proposed operating assumptions are in conflict with good utility practice, and allow the transmission provider to require the interconnection customer to install additional control technologies. We agree with Public Interest Organizations that transparency is necessary when a transmission provider finds that an interconnection customer's operating assumptions conflict with good utility practice.²⁸⁵⁹ Therefore, we modify the proposed revisions to section 3.1.2 of the *pro forma* LGIP to require that, if a transmission provider finds an interconnection customer's proposed operating assumptions to be in conflict with good utility practice, the transmission provider must provide the interconnection customer with a clear explanation in writing of why the submitted operating assumptions are insufficient or inappropriate by no later than 30 calendar days before the end of the customer engagement window and allow the interconnection customer to revise and resubmit the proposed operating assumptions one time at least 10 calendar days before the end of the customer engagement window.

1512. We adopt the proposed revisions to section 3.2.1.2 of the *pro forma* LGIP to require transmission providers to study electric storage resources that request ERS service according to the interconnection customer's proposed operating

²⁸⁴⁸ MISO Initial Comments at 115.

²⁸⁴⁹ Hydropower Commenters Initial Comments at 24.

²⁸⁵⁰ APPA–LPPC Initial Comments at 29–30; Bonneville Initial Comments at 23; MISO Initial Comments at 117; National Grid Initial Comments at 41; NESCOE Reply Comments at 19.

²⁸⁵¹ NESCOE Reply Comments at 18.

²⁸⁵² National Grid Initial Comments at 41.

²⁸⁵³ APPA–LPPC Initial Comments at 29–30.

²⁸⁵⁴ An electric storage resource is a generating facility capable of receiving electric energy from the grid and storing it for later injection of electricity.

²⁸⁵⁵ As noted above, co-located generating facilities are more than one generating facility that are located on the same site and that are connected at the same point of interconnection that are operated and dispatched as separate generating facilities. See *supra* section III.C.1.a.iii.

²⁸⁵⁶ As noted above, a hybrid generating facility is a generating facility composed of more than one device of different technology types for the production and/or storage for later injection of electricity that are located on the same site and are operated and dispatched as a single integrated generating facility. See *supra* section III.A.6.b.iii.

²⁸⁵⁷ Applicable reliability standards means “the requirements and guidelines of the Electric Reliability Organization and the Balancing Authority Area of the Transmission System to which the Generating Facility is directly interconnected.” See *pro forma* LGIP section 1 (Definitions).

²⁸⁵⁸ For clarity, we note that the reforms described in this determination section and the related sections of the *pro forma* LGIP apply to all interconnecting electric storage resources, whether they are standalone, co-located generating facilities, or part of a hybrid generating facility.

²⁸⁵⁹ Public Interest Organizations Initial Comments at 47–49.

assumptions. We adopt the proposed revisions to section 3.2.2.2 of the *pro forma* LGIP to require transmission providers to study electric storage resources that request NRIS service according to the interconnection customer's proposed operating assumptions.

1513. We agree with Elevate and clarify that the reform to use operating assumptions in interconnection studies, at the request of the interconnection customer, that reflect the proposed charging behavior of an electric storage resource applies to the operating assumptions used in all study processes related to the interconnection of electric storage resources. Accordingly, we modify the NOPR proposal to require transmission providers, at the request of the interconnection customer, to use operating assumptions that reflect the proposed charging behavior of an electric storage resource in additional study processes, as described below.

1514. With respect to surplus interconnection service, we modify the NOPR proposal to revise section 3.3.1 of the *pro forma* LGIP to require transmission providers, at the request of the interconnection customer, to use operating assumptions that reflect the proposed charging behavior of an electric storage resource in the surplus interconnection service process.

1515. We adopt the proposed revisions to section 3.4.2 of the *pro forma* LGIP to require interconnection customers to include in their interconnection request the proposed operating assumptions that reflect the proposed charging behavior of the electric storage resource and a description of any control technologies that will limit the operation of the electric storage resource to its intended operation.

1516. To the extent an interconnection customer requests to modify a generating facility already in the interconnection queue by adding an electric storage resource to the interconnection request, the transmission provider shall study such a modification in accordance with section 4.4.3 of the *pro forma* LGIP using operating assumptions that reflect the proposed charging behavior of an electric storage resource, at the request of the interconnection customer. Accordingly, we modify the NOPR proposal to revise section 4.4.3 of the *pro forma* LGIP to require transmission providers, at the request of the interconnection customer, to use operating assumptions that reflect the proposed charging behavior of an electric storage resource in the material modification process.

1517. We adopt the proposed revisions to section 7.3 of the *pro forma* LGIP to require transmission providers, at the request of the interconnection customer, to use operating assumptions that reflect the proposed charging behavior of an electric storage resource in the cluster study process and to allow, but not require, transmission providers to: (1) memorialize the generating facility's operating assumptions in Appendix H of the interconnection customer's LGIA; and/or (2) require control technologies (software and/or hardware) for an electric storage resource that wishes to limit its operations during peak load conditions, with such protection devices included in Appendix C of the interconnection customer's LGIA.

1518. We adopt the proposed revisions to section 8.2 of the *pro forma* LGIP to require transmission providers, at the request of the interconnection customer, to use operating assumptions that reflect the proposed charging behavior of an electric storage resource in the interconnection facilities study process.

1519. We adopt the NOPR proposal to revise Appendix 1 of the *pro forma* LGIP to require interconnection customers to provide to the transmission provider as part of the initial interconnection request: (1) the requested operating assumptions for the interconnecting electric storage resource; and (2) a description of any applicable control technologies. However, we agree with MISO and Pine Gate that it is not necessary, and may not be possible, to specify the specific ancillary services that an electric storage resource will provide before entering the interconnection queue, particularly because the market rules addressing the provision of ancillary services from electric storage resources, whether they are standalone, part of co-located generating facilities, or part of a hybrid generating facility, are still being developed in multiple markets and such rules will likely change over the coming years.²⁸⁶⁰ Therefore, we decline to adopt the proposed revision to require interconnection customers to list the specific ancillary services they intend to provide as part of the initial interconnection request.²⁸⁶¹ In addition, we agree with MISO and CAISO that control technologies frequently evolve, and interconnection customers that choose to specify operating assumptions should be responsible for including appropriate control technologies with

their requests to use such operating assumptions. Therefore, we also decline to adopt the proposed revision to require transmission providers to publicly post a list of acceptable control technologies.

1520. We adopt the NOPR proposal to revise Appendix 1 of the *pro forma* LGIP to require interconnection customers to provide to the transmission provider any proposed operating assumptions for the interconnecting electric storage resource as part of the initial interconnection request. This timing ensures that the flexibility provided by this reform does not delay the cluster study process by ensuring the transmission provider has all necessary information at the time interconnection studies commence. In response to commenters that request that the Commission define a clear decision point after which changes to operating assumptions may be considered a material modification,²⁸⁶² we reiterate that the operating assumptions must be submitted as part of the initial interconnection request. Further, we clarify that such operating assumptions only pertain to the proposed charging behavior of an electric storage resource, *i.e.*, whether the interconnecting resource will or will not charge during peak load conditions.

1521. We modify the NOPR proposal to add article 17.2 to the *pro forma* LGIA to describe a violation of operating assumptions for generating facilities, including for an electric storage resource. We also add Appendix H to the *pro forma* LGIA as the location for the interconnection customer to memorialize its operating assumptions. If the owner of the generating facility fails to operate the generating facility in accordance with its operating assumptions, as memorialized in Appendix H of the *pro forma* LGIA, the transmission provider may pursue termination of the LGIA through the breach and cure provisions found in article 17 of the *pro forma* LGIA. As already provided for in article 17 of the *pro forma* LGIA, we agree with Environmental Defense Fund that interconnection customers should be given the opportunity to cure a breach of the LGIA if possible.²⁸⁶³ We clarify that, if an interconnection customer fails to operate its electric storage resource in accordance with the operating assumptions memorialized in the interconnection customer's LGIA, the

²⁸⁶⁰ MISO Initial Comments at 118; Pine Gate Initial Comments at 52.

²⁸⁶¹ NOPR, 179 FERC ¶ 61,194 at P 281.

²⁸⁶² AES Clean Energy Initial Comments at 24; APS Initial Comments at 22; Clean Energy Associations Initial Comments at 56–57; ENGIE Initial Comments at 11.

²⁸⁶³ Environmental Defense Fund Initial Comments at 6–7.

procedure for termination pursuant to articles 17.1.1 and 17.1.2 of the *pro forma* LGIA is appropriate. We believe that repeat violations of the operating assumptions memorialized in the LGIA are likely not consistent with good utility practice.²⁸⁶⁴ Additionally, we agree with rPlus and Idaho Power that there may be unique instances in real-time operations during which a transmission provider would want an electric storage resource to charge during peak load conditions (e.g., because the electric storage resource is located in a generation pocket). Therefore, we clarify that, if done so at the direction of the transmission provider to maintain the reliable and efficient operation of the transmission system, an electric storage resource that operates contrary to the operating assumptions specified in its LGIA in this instance must not be considered in breach of its LGIA by the transmission provider.

1522. We believe that, taken together, the revisions to the *pro forma* LGIP and *pro forma* LGIA will ensure that interconnection customers adhere to the operating assumptions used to study their electric storage resource and ameliorate concerns about possible reliability problems expressed by commenters. We agree with commenters that: (1) control devices can prevent electric storage resources from charging during peak load conditions; (2) modern electric storage resources can respond to signals from the transmission provider within seconds; (3) electric storage resources generally do not have an economic incentive to charge during peak load conditions; and (4) the consequence of being considered in breach of the LGIA provides an additional incentive for electric storage resources to follow the agreed-upon operating assumptions memorialized in their LGIA. Further, we note that some transmission providers already assume in their interconnection studies that electric storage resources will not charge during peak load conditions.²⁸⁶⁵ We

emphasize that, irrespective of these changes to operating assumptions, all electric storage resources must continue to meet all requirements in the *pro forma* LGIP and *pro forma* LGIA, as well as all applicable reliability standards.

1523. We agree with commenters that the speed and control with which electric storage resources can respond to signals from transmission providers sufficiently distinguishes the charging behavior of electric storage resources from that of firm customer end-use load. Therefore, for purposes of determining any network upgrades necessary to accommodate the reliable interconnection of electric storage resources, we find that the charging of electric storage resources should not be modeled equivalently to firm customer end-use load in interconnection studies if the interconnection customer memorializes its operating assumptions in the LGIA and installs control technologies, if required, to limit its operations as specified.

1524. For clarity and in response to MISO's concern about conflicting descriptions of the reform in the NOPR preamble and the proposed revisions to the *pro forma* LGIP, we modify the proposed revisions to the *pro forma* LGIP to clarify that these requirements apply only to the operating assumptions for withdrawals of energy (e.g., proposed charging behavior of electric storage resources, whether standalone, co-located generating facilities, or part of a hybrid generating facility), not to discharging.

1525. In response to Pine Gate's request for clarification about what network upgrade costs will be allocated to interconnection customers as a result of the adoption of the revisions related to operating assumptions, we clarify that the transmission provider must not assign network upgrade costs to the interconnection customer based on those worst-case operating assumptions (e.g., charging at maximum capacity during peak load conditions) where there is agreement from the interconnection customer to, if required, implement operating restrictions including installing or demonstrating that the generating facility already has control technologies (software and/or hardware) to limit its operations during peak load conditions. As addressed above, we believe that these conditions sufficiently address any reliability concerns associated with the unexpected operation of an electric storage resource and thus believe it is appropriate for the transmission provider to only assign costs for network upgrades based on the

proposed charging behavior of the electric storage resource.²⁸⁶⁶

1526. Several commenters point out that not all transmission providers use the same process to study the charging of electric storage resources. Some transmission providers determine the network upgrades needed to accommodate the charging of an electric storage resource in the interconnection process, whereas other transmission providers do so exclusively as part of a transmission service request.²⁸⁶⁷ In response to these commenters, we clarify that the requirement for transmission providers to use operating assumptions, at the request of the interconnection customer, in interconnection studies that reflect the proposed charging behavior of an electric storage resource applies only to the operating assumptions that transmission providers use in the interconnection process. This requirement does not apply to transmission service requests and this final rule does not propose to modify the process for requesting transmission service. In response to Puget Sound,²⁸⁶⁸ we further clarify that this reform does not require transmission providers to study charging as part of the interconnection process if they do not already do so. If a transmission provider does not determine the network upgrades needed to accommodate the charging of an electric storage resource through the interconnection process, then on compliance the transmission provider must demonstrate why this reform does not apply to that particular transmission provider.

1527. In the NOPR, the Commission sought comment on whether to define "peak load period" and/or "net peak load" period.²⁸⁶⁹ Given the variation in the scenarios that transmission providers study in the interconnection process (e.g., summer peak load, winter peak load, shoulder peak load, light load conditions, etc.), we agree with commenters that regional flexibility is warranted.²⁸⁷⁰ Therefore, we decline to adopt standardized definitions of "peak

²⁸⁶⁴ The *pro forma* LGIA states that "Each Party shall perform all of its obligations under this LGIA in accordance with Applicable Laws and Regulations, Applicable Reliability Standards, and Good Utility Practice, and to the extent a Party is required or prevented or limited in taking any action by such regulations and standards, such Party shall not be deemed to be in Breach of this LGIA for its compliance therewith." *Pro forma* LGIA art. 4.3 (Performance Standards).

²⁸⁶⁵ Bonneville Initial Comments at 23; MISO Comments at 117; see also *PacifiCorp*, 182 FERC ¶ 61,131 (2023) (accepting, subject to condition, revisions to PacifiCorp's LGIP and LGIA to allow PacifiCorp to study electric storage resources in its interconnection study process using operating assumptions that more accurately reflect their expected operation).

²⁸⁶⁶ See, e.g., AEE Initial Comments at 41–42; AEP Initial Comments at 46–47; CESA Reply Comments at 10; Clean Energy Associations Initial Comments at 52, 56–58; NARUC Initial Comments at 37; NESCOE Reply Comments at 18; Public Interest Organizations Initial Comments at 48–50; R Street Initial Comments at 16; SEIA Reply Comments at 26–27.

²⁸⁶⁷ See, e.g., Clean Energy Associations Initial Comments at 55; Puget Sound Initial Comments at 11–12; SPP Initial Comments at 25; Tri-State Initial Comments at 22; Xcel Initial Comments at 46–47.

²⁸⁶⁸ Puget Sound Initial Comments at 11–12.

²⁸⁶⁹ NOPR, 179 FERC ¶ 61,194 at P 287.

²⁸⁷⁰ See, e.g., Ameren Initial Comments at 29; Microgrid Resources Initial Comments at 8.

load period” and/or “net peak load” period.

1528. In the NOPR, the Commission also sought comment on whether to define firm and non-firm charging for electric storage resources and require transmission providers to define study criteria and possible ways to interconnect related to both firm and non-firm charging.²⁸⁷¹ Further, the Commission sought comment on proposed definitions of firm and non-firm charging service. Several commenters express concerns about defining firm and non-firm charging service, including whether the proposed definitions conflate interconnection and transmission service. We believe that, given the other reforms adopted herein regarding operating assumptions, the proposed definitions of firm and non-firm charging service are not necessary to ensure that transmission providers, at the request of the interconnection customer, use more realistic operating assumptions to study electric storage resources in the interconnection process and to avoid excessive and unnecessary network upgrades that may otherwise hinder the timely development of new electric storage resources. Therefore, we decline to adopt any definitions of firm and non-firm charging service. As a result, we also clarify that this final rule does not require transmission providers to define conditions under which electric storage resources will be curtailed. In response to CAISO’s concern that a proposed definition of firm charging service would require transmission providers that do not currently provide firm charging service to do so, we clarify that this final rule does not require transmission providers to provide firm charging service.

1529. In the NOPR, the Commission sought comment on whether to expand this reform to address operating assumptions for additional generating facility technologies that may currently be inaccurately modeled, such as variable energy resources.²⁸⁷² The Commission also sought comment on whether other operating assumptions, in addition to the assumption that electric storage resources withdraw energy during peak load periods, should be addressed as part of this proposed reform. In response to several commenters’ concerns about potential reliability impacts and the administrative burden of extending the NOPR proposal to also address injections of power from electric storage resources or other resource types, we decline in this final rule to extend the

reform to apply to additional generating facility technologies or to other operating assumptions. We clarify that this reform does not apply to the operating assumptions used to study the injection of power from electric storage resources or the injection of power from other resource types (e.g., natural gas, solar, wind, etc.). We encourage transmission providers to examine on an individual basis what operating assumptions used to study the injection of power may be appropriate to render the study process more accurate. Similarly, we decline to require transmission providers to use fuel-based dispatch assumptions to study the injection of power from all resource types in interconnection studies at this time, as suggested by some commenters. We acknowledge that fuel-based dispatch assumptions may be able to address some of the identified challenges associated with inaccurate modeling assumptions for all resource types and encourage transmission providers to evaluate the merits of adopting it, but we do not believe that adopting such a requirement on a generic basis is supported by the record.

1530. We decline to address the potential implications of this reform for transmission providers with Commission-approved interconnection processes that vary from the *pro forma* requirements adopted in Order Nos. 2003 and 845. As explained in the section IV of this final rule, transmission providers with such variations from the *pro forma* LGIP and *pro forma* LGIA may seek approval as part of the compliance process to maintain those variations, which the Commission will consider on a case-by-case basis. What we adopt in this final rule are requirements that are part of the *pro forma* LGIP and *pro forma* LGIA, and we therefore only address the interaction of the requirements adopted herein with existing requirements that are part of the *pro forma* process and not variations thereto.

1531. We also decline to require transmission providers to use standardized operating assumptions, as some commenters suggest.²⁸⁷³ In the NOPR, the Commission did not propose to require transmission providers to use standardized operating assumptions, and we decline to do so here.

1532. In response to comments from Hydropower Commenters’ suggestion that the final rule include a simplified procedure for amending an executed interconnection agreement to optimize the operating parameters of a pumped

storage plant already in operation,²⁸⁷⁴ we find that such a request is outside the scope of this proceeding. In the NOPR, the Commission did not propose a new study process for resources already in operation to amend operating assumptions memorialized in their interconnection agreements.

1533. In response to Microgrid Resources’ request that the Commission explicitly include microgrids in the provisions of this rulemaking applied to hybrid resources,²⁸⁷⁵ we find such a request to be outside the scope of this proceeding. The Commission did not propose to define microgrids or apply specific reforms to microgrids in the NOPR, and we decline to do so now. Further, in response to Microgrid Resources’ and IREC’s requests that the Commission extend the proposed reforms for hybrid resources to the *pro forma* SGIP,²⁸⁷⁶ we note that the NOPR did not propose to revise the *pro forma* SGIP to require transmission providers to use operating assumptions in interconnection studies that reflect the proposed charging behavior of an electric storage resource, and we decline to do so here.

2. Incorporating the Enumerated Alternative Transmission Technologies Into the Generator Interconnection Process

a. Consideration of the Enumerated Alternative Transmission Technologies in Interconnection Studies Upon Request of the Interconnection Customer

i. Need for Reform and NOPR Proposal

1534. In the NOPR, the Commission stated that alternative transmission technologies can provide substantial benefits to optimize the transmission system in specific scenarios because they often can be deployed both more quickly and at lower costs than other network upgrades.²⁸⁷⁷ The Commission stated that, despite these potential benefits, alternative transmission technologies often do not receive the same consideration during generator interconnection processes as other network upgrades.²⁸⁷⁸ The Commission preliminarily found that failing to consider alternative transmission technologies that can be deployed both more quickly and at lower costs than network upgrades may render

²⁸⁷¹ NOPR, 179 FERC ¶ 61,194 at P 288.

²⁸⁷² *Id.* P 286.

²⁸⁷³ Puget Sound Initial Comments at 12; Pine Gate Initial Comments at 54.

²⁸⁷⁴ Hydropower Commenters Initial Comments at 24.

²⁸⁷⁵ Microgrid Resources Initial Comments at 7.

²⁸⁷⁶ *Id.*; IREC Initial Comments at 15, attach. A.

²⁸⁷⁷ NOPR, 179 FERC ¶ 61,194 at P 294.

²⁸⁷⁸ *Id.* P 296.

Commission-jurisdictional rates unjust and unreasonable.

1535. The Commission proposed to revise the *pro forma* LGIP and *pro forma* SGIP to require transmission providers, upon request of the interconnection customer, to evaluate the requested alternative transmission solution(s) during the *pro forma* LGIP cluster study and the *pro forma* SGIP system impact study and facilities study within the generator interconnection process.²⁸⁷⁹

1536. To provide more certainty for evaluation purposes, and focus on technologies that serve a transmission function and thus are subject to Commission jurisdiction, the Commission proposed to specify the technologies that the interconnection customer may request to be evaluated.²⁸⁸⁰ Specifically, the Commission proposed revisions to the *pro forma* LGIP and *pro forma* SGIP to require transmission providers to consider the following technologies within the cluster study of the *pro forma* LGIP and within the system impact study and facilities study of the *pro forma* SGIP upon request of the interconnection customer: advanced power flow control, transmission switching, dynamic line ratings, static synchronous compensators, and static VAR compensators. The Commission stated that it believes that the deployment of these transmission technologies may reduce interconnection costs by providing lower cost network upgrades to interconnect new generating facilities.²⁸⁸¹

1537. The Commission explained that, under this proposal, the interconnection customer may request, at the relevant scoping meeting, that the transmission provider consider a single, multiple, or all technologies on this list.²⁸⁸² The Commission proposed that the transmission provider would be required to evaluate the transmission technologies identified above for feasibility, cost, and time savings within the cluster study for the *pro forma* LGIP and the system impact study and facilities study for the *pro forma* SGIP, upon request of the interconnection customer. The Commission explained that the transmission provider, upon this request, must evaluate the identified transmission technology and, if feasible, determine whether it should be used, consistent with good utility practice and other applicable regulatory standards. Transmission providers

would continue to retain discretion regarding whether to use the transmission technology.

1538. The Commission sought comment on whether the list of alternative transmission technologies is sufficient.²⁸⁸³ In particular, the Commission sought comment on whether storage that performs a transmission function, synchronous condensers, and voltage source converters should be included in the list of alternative transmission technologies. The Commission also sought comment on: (1) whether there are software, operational, or other barriers to the use of these transmission technologies as proposed; (2) whether the use of alternative transmission technologies as supplements for, or in the place of, traditional network upgrades is sufficient to guarantee a level of service to accommodate an interconnection customer seeking NRIS, or whether such a network upgrade can only be used if the interconnection customer requested ERIS; (3) whether the existing study processes and models in the generator interconnection process remain suitable for considering alternative transmission technologies, whether additional processes or models are needed, and if so, which entity should be responsible for developing them; (4) how costs incurred for evaluating alternative transmission technology study requests would be allocated among interconnection customers in the cluster; (5) what reasonable number of transmission technology study requests from each interconnection customer would be workable, the burden (in terms of both time and resources) on transmission providers required to evaluate such requests, and whether interconnection study deadlines may need to be extended to account for time needed to evaluate the alternative transmission technology study requests; and (6) whether provisional interconnection service consideration for transmission technologies should be mandatory.²⁸⁸⁴

ii. Comments

(a) Comments in Support

1539. Numerous commenters support the Commission's proposal because they believe that it could reduce interconnection costs, increase flexibility, increase the speed of interconnections, and improve reliability.²⁸⁸⁵ Commenters assert that

the proposed alternative transmission technologies in the NOPR can reduce costs.²⁸⁸⁶ With respect to reducing interconnection costs, SEIA contends that, by decreasing the costs of network upgrades, the proposal will reduce the number of withdrawals from the interconnection queue, creating a more stable and efficient interconnection process.²⁸⁸⁷ SEIA also claims that decreasing these costs will reduce the interconnection costs for interconnection customers, who may then reflect those savings in power purchase agreements or integrated resource plan submissions.²⁸⁸⁸ Commenters contend that, if the Commission were to not adopt this proposal, the failure to lower interconnection costs by evaluating alternative transmission technologies would impose unjust and unreasonable costs on interconnection customers.²⁸⁸⁹

1540. With respect to reducing interconnection delays, Illinois Commission asserts, for example, that alternative transmission technologies allow resources to come online more quickly and allow for better use of the existing transmission system, requiring fewer transmission buildouts.²⁸⁹⁰ OMS contends that failing to consider alternative transmission technologies risks requiring longer lead-time network upgrades.²⁸⁹¹ WATT Coalition argues that use of the appropriate technologies will result in fewer withdrawals from

at 5–6; Clean Energy Associations Initial Comments at 61–62; Clean Energy Associations Reply Comments at 9; Clean Energy Buyers Initial Comments at 5; Consumer Protection Coalition Reply Comments at 2; CREA and NewSun Initial Comments at 92; EDF Renewables Initial Comments at 14; ENGIE Initial Comments at 12; EPRI Initial Comments at 20–21; Fervo Energy Reply Comments at 8–9; Illinois Commission Initial Comments at 14; Invenenergy Initial Comments at 52; NARUC Initial Comments at 38–39; OSPA Reply Comments at 14; Ohio Commission Consumer Advocate Initial Comments at 15; OMS Initial Comments at 19; Ørsted Initial Comments at 3; Ørsted Reply Comments at 8; R Street Initial Comments at 9; SEIA Initial Comments at 41; Tesla Initial Comments at 8; WATT Coalition Initial Comments at 2; WATT Coalition Reply Comments at 1; Joint Fed.-State Task Force on Elec. Transmission, Technical Conference, Docket No. AD21–15–000, recording at 1:16:18–1:24:02 (approx.) (Commissioner Darcie Houck) (July 16, 2023).

²⁸⁸⁶ Cyprus Creek Initial Comments at 26; SEIA Initial Comments at 40; Shell Initial Comments, app. A at v–vi.

²⁸⁸⁷ SEIA Initial Comments at 40; *see also* AEE Initial Comments at 42; EDF Renewables Initial Comments at 14; ENGIE Initial Comments at 12; Ørsted Initial Comments at 37; OMS Initial Comments at 19.

²⁸⁸⁸ SEIA Initial Comments at 40–41.

²⁸⁸⁹ Clean Energy Associations Reply Comments at 9–10; Environmental Defense Fund Initial Comments at 7; Fervo Energy Reply Comments at 9; NARUC Initial Comments at 38.

²⁸⁹⁰ Illinois Commission Initial Comments at 14.

²⁸⁹¹ OMS Initial Comments at 19.

²⁸⁷⁹ *Id.* P. 297.

²⁸⁸⁰ *Id.* P. 298.

²⁸⁸¹ *Id.*; *see also id.* PP 294–95, 298.

²⁸⁸² *Id.* P. 299.

²⁸⁸³ *Id.* P. 300.

²⁸⁸⁴ *Id.* P. 301.

²⁸⁸⁵ ACORE Reply Comments at 3–4; AEE Initial Comments at 42; AEE Reply Comments at 41; AES Initial Comments at 25; Amazon Initial Comments

the interconnection queue and a reduction in restudies and delays.²⁸⁹² WATT Coalition points out that, when interconnection customers withdraw, grid enhancing technologies offer additional value because they are scalable and modular to address evolving needs and can be redeployed as those needs continue to change.²⁸⁹³

1541. With respect to reliability, Ohio Commission Consumer Advocate contends that some alternative transmission technologies could provide substantial benefits by resolving thermal overloads and avoiding voltage collapse.²⁸⁹⁴

1542. Some commenters argue that a requirement to study alternative transmission technologies would not slow down interconnection studies overall.²⁸⁹⁵ For example, AEE states that, if a technology is not proven or commercially viable, it will be quickly ruled out of further evaluation under prevailing study approaches.²⁸⁹⁶ ACORE claims that an evaluation of alternative transmission technologies would not be a burden but rather an integral part of interconnection studies because such an evaluation will likely reduce the number of withdrawals and restudies.²⁸⁹⁷ WATT Coalition argues that, because transmission providers currently use an iterative process when conducting interconnection studies, adding the proposed list of alternative transmission technologies to an iterative solution set should not significantly change the time frame or complexity of studies.²⁸⁹⁸

(b) Comments in Opposition

1543. Some commenters argue that the proposal is unnecessary because transmission providers already consider alternative transmission technologies in interconnection studies.²⁸⁹⁹ For example, Southern states that transmission providers already include the assessment of alternative transmission technologies such as static VAR compensators as needed in interconnection studies.²⁹⁰⁰ AEE responds that, if alternative transmission technologies are already

being evaluated, then the proposal will not place an additional burden on interconnection queues.²⁹⁰¹

1544. Several commenters oppose the proposal because they believe it conflates the use of alternative transmission technologies in operations with their use in planning.²⁹⁰² For instance, MISO argues that alternative transmission technologies are not necessarily the solution needed for any particular interconnection because these are often operational solutions that are inappropriate for wide-scale deployment in a planning process, which reviews an entire cycle of proposed interconnections and identifies solutions to support those interconnections for the expected lifetime of their interconnection.²⁹⁰³ MISO claims that using alternative transmission technologies in planning for interconnection rather than in operations may be inconsistent with “good utility practice” and “applicable regulatory standards”, and MISO expresses concerns about the impact or effectiveness of using alternative transmission technologies in place of network upgrades.²⁹⁰⁴ NYTOs assert that alternative transmission technologies should generally not be used in interconnection studies unless they are effective in the planning context.²⁹⁰⁵ PJM argues that alternative transmission technologies should not be incorporated into the generator interconnection process because they do not represent long-term solutions that can serve as blanket substitutes for the need for transmission expansion.²⁹⁰⁶ In response, AEE and WATT Coalition argue that the primary purpose of alternative transmission technologies is to serve as a complementary bridge technology while more robust transmission is built.²⁹⁰⁷

1545. Some commenters express concern that alternative transmission technologies are not always appropriate for addressing long-term, interconnection-related reliability issues.²⁹⁰⁸ Southern adds that, because transmission providers already consider

these technologies and are subject to mandatory reliability standards, interconnection customers should not be able to request certain reliability fixes because their overall focus may be to minimize cost instead of maximizing reliability.²⁹⁰⁹ EEI asserts that building firm transmission capacity or replacing or upgrading limiting equipment provides a more reliable long-term solution than the use of alternative transmission technologies because they are not dependable for reducing congestion or providing more capacity in the long-term or during extreme system conditions.²⁹¹⁰

1546. Ameren and EEI oppose the proposal because they assert it overlaps with pending proposals in other proceedings.²⁹¹¹ EEI argues the Commission should not promulgate requirements related to alternative transmission technologies in this proceeding while other Commission proceedings meant to address the use of these same technologies are pending.²⁹¹² ACORE responds that, given the benefits of incorporating alternative transmission technologies in interconnection studies, there is no justification for delaying this requirement pending action in the other Commission proceedings.²⁹¹³

1547. Other commenters argue that requiring interconnection studies to consider alternative transmission technologies will increase interconnection study timelines and therefore slow interconnection request processing speeds, contrary to the NOPR’s objective.²⁹¹⁴ Puget Sound asserts that “the time is not ripe” to enforce new standards concerning alternative transmission technologies, given the sweeping changes proposed in the NOPR, adding that advanced transmission technologies requirements

²⁹⁰⁹ Southern Initial Comments at 29.

²⁹¹⁰ EEI Initial Comments at 20.

²⁹¹¹ Ameren Initial Comments at 30; EEI Initial Comments at 20.

²⁹¹² EEI Initial Comments at 21 (citing Electric Transmission Incentives Policy Under Section 219 of the Federal Power Act, Notice of Proposed Rulemaking, Docket No. RM20–10–000; Grid-Enhancing Technologies, Notice of Workshop, Docket No. AD19–19–000; Implementation of Dynamic Line Ratings, Notice of Inquiry, Docket No. AD22–5–000; Building for the Future Through Electric Regional Transmission Planning and Cost Allocation and Generator Interconnection, Notice of Proposed Rulemaking, Docket No. RM21–17–000).

²⁹¹³ ACORE Reply Comments at 4.

²⁹¹⁴ AEI Initial Comments at 9; AEP Initial Comments at 53; Avangrid Initial Comments at 35; Dominion Initial Comments at 41; EEI Initial Comments at 21; Eversource Initial Comments at 36–37; Indicated PJM TOs Initial Comments at 55; Indicated PJM TOs Reply Comments at 18; ISO–NE Initial Comments at 41; MISO Initial Comments at 11, 123; National Grid Initial Comments at 42–43; Puget Sound Initial Comments at 13.

²⁸⁹² WATT Coalition Initial Comments at 2.

²⁸⁹³ *Id.* at 2–3; WATT Coalition Reply Comments at 5–6.

²⁸⁹⁴ Ohio Commission Consumer Advocate Initial Comments at 15.

²⁸⁹⁵ ACORE Reply Comments at 3–4; AEE Initial Comments at 44; ENGIE Initial Comments at 13; Fervo Energy Initial Comments at 7.

²⁸⁹⁶ AEE Initial Comments at 44.

²⁸⁹⁷ ACORE Reply Comments at 3–4.

²⁸⁹⁸ WATT Coalition Reply Comments at 2.

²⁸⁹⁹ Bonneville Initial Comments at 23–24; MISO Initial Comments at 120; MISO Reply Comments at 12; Southern Initial Comments at 29.

²⁹⁰⁰ Southern Initial Comments at 29.

²⁹⁰¹ AEE Reply Comments at 42–43.

²⁹⁰² MISO Initial Comments at 120; NRECA Initial Comments at 45–46; NYTOs Initial Comments at 32; PJM Initial Comments at 68.

²⁹⁰³ MISO Initial Comments at 120; *see also* NRECA Initial Comments at 45–46.

²⁹⁰⁴ MISO Initial Comments at 122–123.

²⁹⁰⁵ NYTOs Initial Comments at 32; *see also* Puget Sound Initial Comments at 13–14.

²⁹⁰⁶ PJM Initial Comments at 68.

²⁹⁰⁷ AEE Reply Comments at 43–44; WATT Coalition Reply Comments at 3–4.

²⁹⁰⁸ AEI Initial Comments at 9; AEP Initial Comments at 51; Avangrid Initial Comments at 36; Southern Initial Comments at 29; U.S. Chamber of Commerce Initial Comments at 12.

may not be possible in the short term and could negate the Commission's goals to streamline the interconnection process.²⁹¹⁵

1548. MISO contends that some alternative transmission technologies, *e.g.*, technologies that can control line impedances, may shift the burden of system impacts to other parties by causing additional new constraints.²⁹¹⁶ Indicated PJM TOs are concerned that, if one interconnection customer request changes power flows, such as through the use of phase angle regulators, it will impact other interconnection customers and effectively require a whole additional set of studies for large areas of the transmission system.²⁹¹⁷ AECI argues that the appropriate balance of the burden to justify the use of a particular technology should rest with the interconnection customer so that "capricious study requests" are avoided.²⁹¹⁸

1549. Several commenters argue that the NOPR proposal is overly burdensome for transmission providers.²⁹¹⁹ For instance, MISO TOs note the competing interests (*i.e.*, accelerating the interconnection process and layering numerous additional requirements and significantly increasing the number of studies an RTO/ISO and its transmission owners must perform).²⁹²⁰ MISO argues that the Commission's proposal would require MISO to conduct 4,780 evaluations in the first phase of its interconnection study process.²⁹²¹ MISO contends that, when evaluating how these technologies can be incorporated, the effects on the rest of the interconnection queue and system can generate debate that could slow down the interconnection process. Similarly, National Grid claims that new alternative transmission technologies can present modeling uncertainties (*e.g.*, operating parameters and cost uncertainties) and potential software limitations that transmission owners would need an unforeseeable amount of time to evaluate and could lead to possible penalties if study deadlines are not met.²⁹²²

(c) Comments on Specific Proposal (1) List of Alternative Transmission Technologies

1550. Some commenters broadly support the list of proposed alternative transmission technologies,²⁹²³ with others supporting particular technologies (*e.g.*, dynamic line ratings²⁹²⁴ and advanced power flow control²⁹²⁵).

1551. MISO and SoCal Edison oppose the proposed list of technologies because they contend that it includes technologies that are not appropriate for interconnection.²⁹²⁶ MISO asserts that, although the deployment of devices such as static series synchronous compensators could solve some problems, they could create other issues (*e.g.*, a change to the impedance of any one transmission facility could cause problems or impact operations elsewhere), requiring the holistic management of their operation and deployment.²⁹²⁷ SoCal Edison claims that certain technologies that the interconnection customer may request to be evaluated, such as dynamic line ratings, have not been fully tested by certain RTOs/ISOs and thus should be excluded from the permissible list of options requested by an interconnection customer.²⁹²⁸

1552. Some commenters assert that, although dynamic line ratings may be beneficial during operations, they may not be appropriate for interconnection or transmission planning.²⁹²⁹ Others note several operational challenges of using dynamic line ratings in interconnection, such as: (1) there is currently no Commission or NERC guidance on how to use dynamic line ratings absent thorough data on wind conditions, temperature, and other future system conditions;²⁹³⁰ and (2)

interconnection study software is not capable of incorporating dynamic line ratings, and it is not clear what assumptions should be used on affected systems.²⁹³¹ ISO-NE argues that the Commission should continue to consider the use and implementation of this technology in Docket No. AD22–5, rather than here.²⁹³² In response, WATT Coalition argues that there is significant value in considering dynamic line ratings in planning, adding that dynamic line ratings and other grid enhancing technologies are not more difficult to study than legacy devices and traditional solutions.²⁹³³

1553. While acknowledging the benefits that advanced power flow control devices provide for real-time operations, Indicated PJM TOs contend that they are inappropriate in the context of implementing solutions to facilitate interconnection.²⁹³⁴ Tri-State claims that advanced power flow control devices may push power onto other affected systems, which is a more significant challenge in non-RTO/ISO scenarios.²⁹³⁵ MISO asserts that the widespread use of advanced flow control devices can have widespread impacts due to sizeable adjustments to line impedances and that using these devices could result in a cascade of issues across the system, pushing the problem and the costs of remedying it to other customers.²⁹³⁶ WATT Coalition asserts that automatic power factor controllers are just as effective at mitigating overloads as reconductoring but that automatic power factor controllers are the only flexible AC transmission system devices that suffer from the "perverse incentive" identified by stakeholders because installation costs are much lower than the upgrades they compete with.²⁹³⁷ PacifiCorp states that in the course of the interconnection study process it often considers the use of advanced power flow control devices as potential alternatives to standard system infrastructure.²⁹³⁸

1554. Some commenters raise concerns about using transmission switching for interconnection. For instance, Tri-State questions whether transmission switching is meant to be a remedial action scheme or to create permanent open points on the system, which it argues may be problematic in non-RTOs/ISOs and may result in

²⁹¹⁵ Puget Sound Initial Comments at 13.

²⁹¹⁶ MISO Initial Comments at 122, 124.

²⁹¹⁷ Indicated PJM TOs Initial Comments at 55.

²⁹¹⁸ AECI Initial Comments at 9.

²⁹¹⁹ Dominion Initial Comments at 41; EEI Initial Comments at 21; Eversource Initial Comments at 36–37; MISO TOs Initial Comments at 30; NextEra Initial Comments at 6.

²⁹²⁰ MISO TOs Initial Comments at 30.

²⁹²¹ MISO Initial Comments at 11.

²⁹²² National Grid Initial Comments at 42–43.

²⁹²³ NARUC Initial Comments at 39; OMS Initial Comments at 19; Ørsted Initial Comments at 16; WATT Coalition Initial Comments at 3; Xcel Initial Comments at 47.

²⁹²⁴ Illinois Commission Initial Comments at 14; OMS Initial Comments at 19; WATT Coalition Initial Comments at 2; Joint Fed.-State Task Force on Elec. Transmission, Technical Conference, Docket No. AD21–15–000, recording at 1:16:18–1:24:02 (approx.) (Commissioner Darcie Houck) (July 16, 2023).

²⁹²⁵ WATT Coalition Initial Comments at 2; Joint Fed.-State Task Force on Elec. Transmission, Technical Conference, Docket No. AD21–15–000, recording at 1:16:18–1:24:02 (approx.) (Commissioner Darcie Houck) (July 16, 2023).

²⁹²⁶ MISO Initial Comments at 122; SoCal Edison Initial Comments at 20.

²⁹²⁷ MISO Initial Comments at 122.

²⁹²⁸ SoCal Edison Initial Comments at 20.

²⁹²⁹ Indicated PJM TOs Initial Comments at 56; ISO-NE Initial Comments at 41; NYTOs Initial Comments at 32–33; PacifiCorp Initial Comments at 44; Tri-State Initial Comments at 23; U.S. Chamber of Commerce Initial Comments at 12–13.

²⁹³⁰ PacifiCorp Initial Comments at 44.

²⁹³¹ Tri-State Initial Comments at 23.

²⁹³² ISO-NE Initial Comments at 41.

²⁹³³ WATT Coalition Reply Comments at 4–6.

²⁹³⁴ Indicated PJM TOs Initial Comments at 56.

²⁹³⁵ Tri-State Initial Comments at 23.

²⁹³⁶ MISO Initial Comments at 122.

²⁹³⁷ WATT Coalition Initial Comments at 3.

²⁹³⁸ PacifiCorp Initial Comments at 43.

reduced reliability on the transmission system.²⁹³⁹ MISO argues that applying automatic topology changes would be remedial action schemes, noting that MISO and its transmission owners have attempted to reduce the number of remedial action schemes employed on the system as a matter of good utility practice.²⁹⁴⁰ PacifiCorp contends that transmission switching is a complex process that can be implemented only under particular factual scenarios and system conditions, adding that it is unlikely that system congestion could be reliably reduced by requiring the analysis of transmission switching in the study process.²⁹⁴¹

1555. Other commenters argue that the Commission should not limit the alternative transmission technologies to a pre-approved list.²⁹⁴² Some commenters contend that the Commission's proposal could limit future grid enhancing technologies that might be the best solution because the list includes only five technologies and would not require transmission providers to consider new grid enhancing technologies until the list is expanded.²⁹⁴³ AEE and ENGIE ask the Commission to provide a non-exhaustive list of alternative transmission technologies and allow any alternative transmission technologies or grid enhancing technologies that are proven and commercially viable to qualify for evaluation, consistent with the Commission's statutory obligation to "encourage, as appropriate, the deployment of advanced transmission technologies" and the list of alternative transmission technologies included in that statute.²⁹⁴⁴

1556. Commenters suggest adding the following technologies to the list: (1) synchronous condensers and voltage source converters;²⁹⁴⁵ (2) IBR technology solutions for advanced control capabilities and control parameter tuning;²⁹⁴⁶ (3) microgrid

control technologies;²⁹⁴⁷ and (4) remedial action schemes, which they contend are an effective and inexpensive way to mitigate local transmission constraints the use of which is not allowed in many transmission providers' policies.²⁹⁴⁸

1557. Several commenters also suggest adding advanced conductors to the required list of alternative transmission technologies.²⁹⁴⁹ VEIR and ACORE argue that advanced conductors may be a beneficial alternative to network upgrades because: (1) advanced conductors meet the same criteria of quick deployment and low cost and have advantages over other network upgrades, especially the elimination of additional siting and permitting requirements;²⁹⁵⁰ and (2) a recent Grid Strategies LLC report finds "short lead time to reconductor existing lines can help manage risk and uncertainties and significantly increase system capacity to mitigate overloads identified in interconnection studies."²⁹⁵¹ NARUC asks the Commission to consider requiring an evaluation of the accuracy of transmission line ratings on surrounding or impacted transmission facilities if requested by an interconnection customer.²⁹⁵² Additionally, Ampjack proposes tower lifting to increase transmission line ratings due to the time savings, lack of outages, and use of existing structures.²⁹⁵³

1558. Many commenters recommend that the Commission add storage that performs a transmission function to the list.²⁹⁵⁴ Illinois Commission contends

that storage that performs a transmission function can relieve congestion, maintain reliability, and be placed on the transmission system more quickly and cheaply than building new transmission lines.²⁹⁵⁵ Tesla suggests expanding the list to include batteries as virtual transmission, arguing that it provides several benefits (e.g., providing emergency capacity for congested transmission lines and surplus generation and surplus load capacity to allow operation of transmission lines closer to thermal capacity without risk of outage and averting the need for load shed by providing grid stability service).²⁹⁵⁶ Clean Energy Associations note that the Commission has approved tariffs for storage that performs a transmission function. Clean Energy Associations assert that it would be inconsistent to prohibit an interconnection customer from adding electric storage to an interconnection request specifically to address transmission reliability impacts in lieu of conventional upgrades, while at the same time allowing an interconnection customer to add such storage to an interconnection request for purposes unrelated to transmission reliability or allowing an interconnection customer to limit electric storage operations as a means to avoid network upgrades.²⁹⁵⁷

1559. Other commenters do not agree with adding storage that performs a transmission function to the list.²⁹⁵⁸ MISO notes that, although it already evaluates storage that performs a transmission function in its generator interconnection process, it was a subject of considerable debate.²⁹⁵⁹ Shell states that, while storage that performs a transmission function may provide system benefits, it has concerns regarding the ability of storage that performs a transmission function to "queue jump" interconnection customers, thus putting those customers at a competitive disadvantage.²⁹⁶⁰

(2) Whether To Mandate the Consideration of Alternative Transmission Technologies

1560. Several commenters argue that these technologies should be studied by default, rather than at the request of the interconnection customer, with some suggesting an "opt-out" that the

²⁹³⁹ Tri-State Initial Comments at 23.

²⁹⁴⁰ MISO Initial Comments at 122.

²⁹⁴¹ PacifiCorp Initial Comments at 44.

²⁹⁴² Amazon Initial Comments at 6–7; CTC Global Initial Comments at 17; ENGIE Initial Comments at 13; Environmental Defense Fund Initial Comments at 7; Invenenergy Initial Comments at 52; Microgrid Resources Initial Comments at 8; NRECA Initial Comments at 46; Public Interest Organizations Initial Comments at 53–55; Xcel Initial Comments at 47.

²⁹⁴³ Ameren Initial Comments at 31–32; MISO Reply Comments at 13–14; Shell Initial Comments, app. A at v.

²⁹⁴⁴ AEE Initial Comments at 44–45 (citing 42 U.S.C. 16422); ENGIE Initial Comments at 13.

²⁹⁴⁵ NARUC Initial Comments at 39; Xcel Initial Comments at 47.

²⁹⁴⁶ EPRI Initial Comments at 21.

²⁹⁴⁷ Microgrid Resources Initial Comments at 8.

²⁹⁴⁸ Enel Initial Comments at 80.

²⁹⁴⁹ ACORE Initial Comments at 6–7; CTC Global Initial Comments at 6–9; VEIR Initial Comments at 5–7.

²⁹⁵⁰ VEIR Initial Comments at 5–7.

²⁹⁵¹ ACORE Initial Comments at 7 (citing Jay Caspari and Jesse Schneider, Grid Strategies, LLC, *Opportunities to Use Advanced Conductors to Accelerate Grid Decarbonization*, at 9 (Feb. 2022), https://acore.org/wp-content/uploads/2022/03/Advanced_Conductors_to_Accelerate_Grid_Decarbonization.pdf).

²⁹⁵² NARUC Initial Comments at 39–40.

²⁹⁵³ Ampjack Initial Comments at 1–4.

²⁹⁵⁴ AES Initial Comments at 25; Clean Energy Associations Initial Comments at 62; Clean Energy Associations Reply Comments at 9; ENGIE Initial Comments at 13; Illinois Commission Initial Comments at 14–15; Illinois CUB Reply Comments at 1; NARUC Initial Comments at 39; NESCOE Reply Comments at 19; NY Commission and NYSEDA Initial Comments at 10; Ohio Commission Consumer Advocate Initial Comments at 17; OMS Initial Comments at 19; Ørsted Initial Comments at 16; Tesla Initial Comments at 8–9; Union of Concerned Scientists Reply Comments at 14–15; Xcel Initial Comments at 47; Joint Fed.-State Task Force on Elec. Transmission, Technical Conference, Docket No. AD21–15–000, recording at 1:16:18–1:24:02 (approx.) (Commissioner Darcie Houck) (July 16, 2023).

²⁹⁵⁵ Illinois Commission Initial Comments at 14–15.

²⁹⁵⁶ Tesla Initial Comments at 8–9.

²⁹⁵⁷ Clean Energy Associations Initial Comments at 62–63.

²⁹⁵⁸ Ameren Initial Comments at 31; MISO Initial Comments at 121; Shell Initial Comments, app. A at v.

²⁹⁵⁹ MISO Initial Comments at 121.

²⁹⁶⁰ Shell Initial Comments, app. A at v.

interconnection customer could elect.²⁹⁶¹ Fervo Energy argues that mandating the consideration of grid enhancing technologies could be more efficient and facilitate more and faster interconnection, although there may be delays initially as transmission providers adjust.²⁹⁶² Clean Energy Associations ask that transmission providers automatically evaluate grid enhancing technologies, unless all interconnection customers in a cluster opt out.²⁹⁶³ Ørsted recommends that the Commission consider requiring that advanced transmission technologies be studied and implemented when network upgrades are needed but cannot be completed within three years of being identified.²⁹⁶⁴

1561. CAISO contends that the Commission should simply require transmission providers to include a statement in their tariffs that they will consider alternative transmission technologies for every interconnection and incorporate them when they are the cost-effective solution.²⁹⁶⁵ CAISO states that this would allow the interconnection customer to request an unexecuted interconnection agreement and to raise with the Commission any transmission provider refusal to consider a technology.²⁹⁶⁶ Ohio Commission Consumer Advocate suggests that transmission providers and interconnection customers mutually determine an appropriate number of evaluations for grid enhancing technologies.²⁹⁶⁷

(3) Alternative Transmission Technologies in Provisional Interconnection Service

1562. Some commenters argue that alternative transmission technologies could assist with provisional interconnection service. For instance, R Street and Hannon Armstrong assert

that these technologies can be used as a temporary measure until other network upgrades are completed, thus reducing the cost and delays of generator interconnection, even if they only serve as a bridge to a permanent solution set, such as cluster network upgrades.²⁹⁶⁸ NextEra contends that, when an alternative transmission technology may serve as a temporary solution, the transmission provider should reasonably cooperate with requests from an interconnection customer willing to fund installation of that technology as an interim solution.²⁹⁶⁹ Fervo Energy asks the Commission to require transmission providers to consider alternative transmission technologies when responding to a provisional interconnection request if these technologies allow for earlier in-service dates.²⁹⁷⁰

1563. Others oppose requiring evaluation of alternative transmission technologies for provisional interconnection service.²⁹⁷¹ For instance, MISO argues that the consideration of advanced transmission technologies for provisional interconnection service should not be mandatory because it may result in delays that are contrary to the goals of this proceeding.²⁹⁷²

(4) Alternative Transmission Technologies for NRIS or ERIS

1564. Some commenters responded to whether the use of alternative transmission technologies can support an interconnection customer's request for NRIS, or whether the use of such technologies can only be used if the interconnection customer requested ERIS. Hannon Armstrong asserts that one or more of these alternative transmission technologies may be able to delay or eliminate the needed network upgrades identified in interconnection studies under both ERIS and NRIS.²⁹⁷³ MISO argues that technologies that merely curtail generation would not be suitable for interconnection requests seeking NRIS as they could not pass the deliverability test, while technologies that can control transmission line impedances, such as phase shifters, are acceptable for NRIS.²⁹⁷⁴ Invenenergy contends that a given alternative transmission

technology may only facilitate ERIS service in certain circumstances but that there is no reason to limit the scope of alternative transmission technologies at the outset without having performed any relevant analysis.²⁹⁷⁵ Clean Energy Associations ask the Commission to require transmission providers to publicly post any service differences (e.g., if use of a given technology would enable ERIS but not necessarily NRIS).²⁹⁷⁶

(5) Study and Network Upgrade Cost Allocation for Alternative Transmission Technologies

1565. Commenters address the Commission's question about how costs incurred for evaluating alternative transmission technology study requests would be allocated among interconnection customers in the cluster. WATT Coalition argues that any marginal increase of study costs to accommodate the evaluation of grid enhancing technologies should be allocated evenly across interconnection customer cluster study participants.²⁹⁷⁷ However, NARUC and Indicated PJM TOs disagree, asserting that additional costs incurred for evaluating alternative transmission technologies should be allocated to the requesting interconnection customer(s) to maintain cost certainty and equity.²⁹⁷⁸ Fervo Energy proposes that, if the requested alternative transmission technology would benefit more than one interconnection customer in the cluster, a pro rata allocation of study cost among those interconnection customers would be appropriate; however, if the requested technology only serves one interconnection customer, Fervo Energy argues that direct cost allocation for that study cost is appropriate.²⁹⁷⁹ Fervo Energy adds that it would support pro rata allocation of costs even if the Commission mandates consideration of alternative transmission technologies.²⁹⁸⁰

1566. NextEra argues that, under the "but for" principle of cost allocation, the interconnection customer's cost responsibility should be limited to the cost of the alternative transmission technology that would have sufficed as a long-term solution for a given network upgrade, especially when transmission providers choose instead to construct more costly upgrades beyond what is

²⁹⁶¹ ACORE Initial Comments at 6; AEE Initial Comments at 42, 44; AEE Reply Comments at 41–42; Amazon Initial Comments at 6; Clean Energy Associations Initial Comments at 63–64; Environmental Defense Fund Initial Comments at 7; ELCON Initial Comments at 11; ENGIE Initial Comments at 13; Fervo Energy Reply Comments at 9; Hannon Armstrong Initial Comments at 2; Invenenergy Initial Comments at 52–53; R Street Initial Comments at 16; WATT Coalition Initial Comments at 2; WATT Coalition Reply Comments at 1; Joint Fed.-State Task Force on Elec. Transmission, Technical Conference, Docket No. AD21–15–000, recording at 1:16:18–1:24:02 (approx.) (Commissioner Darcie Houck) (July 16, 2023).

²⁹⁶² Fervo Energy Reply Comments at 9.

²⁹⁶³ Clean Energy Associations Initial Comments at 63.

²⁹⁶⁴ Ørsted Reply Comments at 8.

²⁹⁶⁵ CAISO Initial Comments at 38.

²⁹⁶⁶ *Id.*; see also MISO Reply Comments at 13.

²⁹⁶⁷ Ohio Commission Consumer Advocate Initial Comments at 16.

²⁹⁶⁸ R Street Initial Comments at 16; Hannon Armstrong Initial Comments at 2.

²⁹⁶⁹ NextEra Initial Comments at 38–39.

²⁹⁷⁰ Fervo Energy Reply Comments at 10.

²⁹⁷¹ Ameren Initial Comments at 32; MISO Initial Comments at 124.

²⁹⁷² MISO Initial Comments at 124.

²⁹⁷³ Hannon Armstrong Initial Comments at 2.

²⁹⁷⁴ MISO Initial Comments at 124.

²⁹⁷⁵ Invenenergy Initial Comments at 53.

²⁹⁷⁶ Clean Energy Associations Initial Comments at 62.

²⁹⁷⁷ WATT Coalition Initial Comments at 4.

²⁹⁷⁸ NARUC Initial Comments at 40; Indicated PJM TOs Reply Comments at 17–18.

²⁹⁷⁹ Fervo Energy Initial Comments at 7.

²⁹⁸⁰ Fervo Energy Reply Comments at 10.

required for the interconnection customer's proposed generating facility.²⁹⁸¹ Tri-State instead argues that the Commission's proposal does not consider the likely outcome of an interconnection request advancing with a new technology, which will force the subsequent interconnection customer to fund costly network upgrades when it would be more equitable for the interconnection customers to share the cost of a single network upgrade.²⁹⁸²

(6) Timing of Alternative Transmission Technology Evaluation Requests

1567. Some commenters discuss limiting the request to include alternative transmission technologies to the initial stages of the interconnection process. ISO-NE and NESCOE argue that any alternatives that are proposed should be included in the initial interconnection request with specific assumptions that can be studied.²⁹⁸³

1568. Other commenters argue that interconnection customers should be able to request the study of alternative transmission technologies later in the interconnection process or when more information is available.²⁹⁸⁴ Clean Energy Associations contend that transmission providers should be required to post the costs of requested technologies and give interconnection customers the flexibility to adopt appropriate solutions, subject to system conditions and any limitations in the area.²⁹⁸⁵ Ørsted suggests that once cluster studies are done, and if the required upgrades are outside of the cluster area, then alternate transmission technologies, with the addition of energy storage, should be evaluated by the transmission provider during its system impact study phase.²⁹⁸⁶

1569. NARUC asks the Commission to ensure that there is an opportunity for information exchange between the transmission provider and interconnection customer to design alternative transmission technology solutions and supports implementation of a time frame to facilitate that information exchange.²⁹⁸⁷ Ohio Commission Consumer Advocate

contends that some changes would be required to address unique attributes of grid enhancing technologies that may be overlooked by existing frameworks and that the cost and duration of modeling and evaluations would be best addressed by transmission providers in concert with interconnection customers.²⁹⁸⁸

(d) Requests for Clarification and Flexibility

1570. Ameren asks how software or operational barriers (such as whether the MISO software can model the technology) will be addressed.²⁹⁸⁹ Ameren asks for clarification as to who pays for the software necessary to model the alternative transmission technology and whether that gets assigned to the interconnection customer requesting the use of the advanced transmission technology or to the cluster of interconnection customers, some of which may prefer a different solution that does not involve use of an advanced transmission technology. Ameren claims that it is unclear what happens if interconnection customers within the same cluster disagree about using an alternative transmission technology in place of a network upgrade and whether consensus is required.

1571. NARUC suggests that the Commission clarify that transmission providers need not perform a separate study for each requested alternative transmission technology.²⁹⁹⁰ NARUC also asks the Commission to clarify that interconnection customers bear the burden of designing the alternative transmission technology solutions, preparing necessary technical data, and determining whether it is temporary or permanent.

1572. NEPOOL urges the Commission to receive input from each RTO/ISO to consider how much flexibility to provide with respect to the list of alternative transmission technologies because they are the most informed with respect to which alternative transmission technologies are feasible.²⁹⁹¹ Similarly, NYTOs ask the Commission to allow regions to determine which alternative transmission technologies would be appropriate and beneficial in performing interconnection studies instead of mandating their use.²⁹⁹²

1573. Some commenters underscore the importance of transmission

providers retaining the discretion to decline to adopt an alternative transmission technology in the place of a network upgrade.²⁹⁹³ National Grid argues that, to the extent an interconnection customer requests evaluation of a new alternative transmission technology beyond the list proposed in the NOPR and provides studies in support of its proposed use, the transmission owner should be permitted to determine whether the evaluation of such a new technology will be beneficial.²⁹⁹⁴ Indicated PJM TOs request that, if the final rule requires transmission providers to consider alternative transmission technologies, the transmission provider and transmission owners have the ability to reject the request without a study when they have knowledge or experience that the request will not work.²⁹⁹⁵

(e) Miscellaneous

1574. Invenenergy argues that, if an alternative transmission technology is not selected, the transmission providers should provide detailed reports, including a cost-benefit analysis, behind the decision and there should be a process to resolve disagreements over the decision with the interconnection customer.²⁹⁹⁶ R Street requests that the Commission require transmission providers to describe the benefits, or lack thereof, of the set of technologies listed in the NOPR.²⁹⁹⁷ WATT Coalition and California Public Utilities Commissioner Darcie Houck request that transmission providers abide by strict standards when studying grid enhancing technologies.²⁹⁹⁸

1575. In addition to the study of alternative transmission technologies that the Commission envisions, Ørsted recommends requiring the deployment of these alternative transmission technologies as a medium-term or long-term alternative to transmission build out.²⁹⁹⁹

1576. EDF Renewables suggests that the Commission require the consideration of alternative transmission technologies not only in

²⁹⁸¹ NextEra Initial Comments at 38.

²⁹⁸² Tri-State Initial Comments at 23.

²⁹⁸³ ISO-NE Initial Comments at 41; NESCOE Reply Comments at 21.

²⁹⁸⁴ EDF Renewables Initial Comments at 14–15; Enel Initial Comments at 79; Fervo Energy Reply Comments at 9; Invenenergy Initial Comments at 55; Ørsted Initial Comments at 9.

²⁹⁸⁵ Clean Energy Associations Initial Comments at 62.

²⁹⁸⁶ Ørsted Initial Comments at 9 (referencing definition of “alternative transmission technologies,” NOPR, 179 FERC ¶ 61,194 at P 294 n.406).

²⁹⁸⁷ NARUC Initial Comments at 40–41.

²⁹⁸⁸ Ohio Commission Consumer Advocate Initial Comments at 16.

²⁹⁸⁹ Ameren Initial Comments at 32.

²⁹⁹⁰ NARUC Initial Comments at 40.

²⁹⁹¹ NEPOOL Initial Comments at 17.

²⁹⁹² NYTOs Initial Comments at 32–33.

²⁹⁹³ Ameren Initial Comments at 31; APS Initial Comments at 23; Indicated PJM TOs Initial Comments at 57; National Grid Initial Comments at 42; PacifiCorp Initial Comments at 43; Xcel Initial Comments at 47.

²⁹⁹⁴ National Grid Initial Comments at 42.

²⁹⁹⁵ Indicated PJM TOs Reply Comments at 17.

²⁹⁹⁶ Invenenergy Initial Comments at 54.

²⁹⁹⁷ R Street Initial Comments at 16.

²⁹⁹⁸ WATT Coalition Initial Comments at 3–4; Joint Fed.-State Task Force on Elec. Transmission, Technical Conference, Docket No. AD21–15–000, recording at 1:16:18–1:24:02 (approx.) (Commissioner Darcie Houck) (July 16, 2023).

²⁹⁹⁹ Ørsted Initial Comments at 16.

interconnection and transmission planning but also in market operations upon an interconnection customer's request.³⁰⁰⁰

1577. Enel claims that interconnection customer interconnection facilities are underutilized and could be networked into the transmission system to mitigate transmission constraints and to increase system reliability.³⁰⁰¹ Enel suggests that the Commission add language to the *pro forma* LGIA that allows interconnection facilities to convert to distribution facilities or regional transmission facilities.

iii. Commission Determination

1578. We adopt, with modifications, the proposed revisions to section 7.3 of the *pro forma* LGIP, and sections 3.3.6 and 3.4.10 of the *pro forma* SGIP. We modify the NOPR proposal to require transmission providers to evaluate the following enumerated list of alternative transmission technologies: static synchronous compensators, static VAR compensators, advanced power flow control devices, transmission switching, synchronous condensers, voltage source converters, advanced conductors, and tower lifting. We modify proposed *pro forma* LGIP section 7.3 to require transmission providers to evaluate the list of alternative transmission technologies enumerated in this final rule during the cluster study, including any restudies, of the generator interconnection process in all instances (*i.e.*, for all interconnection customers in a cluster), without the need for a request from an interconnection customer. We require transmission providers to evaluate each alternative transmission technology listed in *pro forma* LGIP section 7.3 and to determine, in the transmission provider's sole discretion, whether it should be used, consistent with good utility practice, applicable reliability standards, and other applicable regulatory requirements. Finally, we require transmission providers to include, in the *pro forma* LGIP cluster study report, an explanation of the results of the evaluation of the enumerated alternative transmission technologies for feasibility, cost, and time savings as an alternative to a traditional network upgrade.

1579. We modify the enumerated list of alternative transmission technologies from the NOPR proposal to: (1) retain synchronous, static VAR compensators, advanced power flow control, and transmission switching in the list; (2)

add synchronous condensers, voltage source converters, advanced conductors, and tower lifting to the list; and (3) remove dynamic line ratings from the list. Generally, we find that these enumerated alternative transmission technologies are those with the most potential to be useful to reduce interconnection costs by providing lower cost network upgrades to interconnect new generating facilities and, thus, we require transmission providers to evaluate these technologies in the interconnection process for their feasibility, cost, and time savings potential.

1580. We also adopt, with modifications, the proposed revisions to sections 3.3.6 and 3.4.10 of the *pro forma* SGIP. Consistent with the *pro forma* LGIP requirement, we require transmission providers to evaluate the enumerated alternative transmission technologies in all instances, without the need for a request from an interconnection customer. We modify the proposal to require such evaluations to occur during the *pro forma* SGIP feasibility study and system impact study of the generator interconnection process, as opposed to in the *pro forma* SGIP system impact study and facilities study. We find that it is appropriate to modify the proposal so that these evaluations occur during the relevant *pro forma* SGIP studies where network upgrades are identified, consistent with the *pro forma* LGIP requirement. We require transmission providers to evaluate each alternative transmission technology listed in *pro forma* SGIP sections 3.3.6 and 3.4.10 and determine, in the transmission provider's sole discretion, whether it should be used, consistent with good utility practice, applicable reliability standards, and other applicable regulatory requirements.

1581. Finally, we require transmission providers to include, in the feasibility study report and system impact study report, an explanation of the results of the evaluation of the enumerated alternative transmission technologies for feasibility, cost, and time savings as an alternative to a traditional network upgrade. We note that this reform is one of the few reforms in this final rule that applies to small generating facilities, in addition to large generating facilities. As described below, we find that the enumerated alternative transmission technologies that we are requiring transmission providers to evaluate in their interconnection studies are appropriate for evaluation in the *pro forma* SGIP context because they are scalable, and we find that the enumerated alternative transmission

technologies have the potential to provide similar benefits in the context of both small and large generating facilities, including cost and time savings. As such, we adopt, with modifications, the proposed revisions to require transmission providers to evaluate the enumerated alternative transmission technologies in all instances in both the *pro forma* LGIP and *pro forma* SGIP.

1582. This final rule does not create a presumption in favor of substituting alternative transmission technologies for necessary traditional network upgrades, either categorically or in specific cases.³⁰⁰² This final rule is agnostic as to whether, in a specific case, an alternative transmission technology is an acceptable alternative to a traditional network upgrade,³⁰⁰³ "that would allow the interconnection customer to flow the output of its generating facility onto the transmission provider's transmission system in a safe and reliable manner."³⁰⁰⁴ The determination in each specific case whether to require a traditional network upgrade or an alternative transmission

³⁰⁰² See PJM Initial Comments at 68 ("PJM therefore cautions the Commission not to conflate the operational benefits of alternative transmission technologies . . . with the need to address significant capacity enhancement needs (short and long-term) or long-range transmission needs under rapid growth or changing resource mix scenarios."); MISO Initial Comments at 120 ("However, the Commission fails to recognize that these technologies may be evaluated in the generator interconnection process already but may nonetheless not be adopted as they are not the appropriate solution to a Transmission Issue related to an interconnection.");

³⁰⁰³ See MISO Initial Comments at 121–22 ("Further, although these technologies may be evaluated, the technologies identified by the Commission still may not provide the appropriate solution from a planning perspective.[] Many of the technologies identified are appropriately considered as operational tools or short-term solutions but are not necessarily appropriate for planning to support a particular generator interconnection.");

³⁰⁰⁴ See Order No. 2003, 104 FERC ¶ 61,103 at P 767 ("Both Energy Resource Interconnection Service and Network Resource Interconnection Service provide for the construction of Network Upgrades that would allow the Interconnection Customer to flow the output of its Generating Facility onto the Transmission Provider's Transmission System in a safe and reliable manner"); Order No. 2003–A, 106 FERC ¶ 61,220 at P 404; *pro forma* LGIA art. 9.3 ("Transmission Provider shall cause the Transmission System and the Transmission Provider's Interconnection Facilities to be operated, maintained and controlled in a safe and reliable manner and in accordance with this LGIA"); *Midwest Indep. Transmission Sys. Operator, Inc.*, 138 FERC ¶ 61,233, at P 190 (2012), *reh'g denied*, 139 FERC ¶ 61,253 (2012), *partial reh'g granted on other grounds*, 150 FERC ¶ 61,035 (2015). See also *pro forma* LGIA art. 9.4 ("Interconnection Customer shall at its own expense operate, maintain and control the Large Generating Facility and Interconnection Customer's Interconnection Facilities in a safe and reliable manner and in accordance with this LGIA").

³⁰⁰⁰ EDF Renewables Initial Comments at 14–15.

³⁰⁰¹ Enel Initial Comments at 80–81.

technology is to be made by the transmission provider, and the determination should be consistent with good utility practice, applicable reliability standards, and other applicable regulatory requirements.³⁰⁰⁵ This rule mandates a *process* of evaluation of alternatives to traditional network upgrades, not outcomes in specific cases.

1583. Based on the record, we affirm the Commission's preliminary finding in the NOPR that alternative transmission technologies have the potential to provide benefits to optimize the transmission system in specific scenarios.³⁰⁰⁶ Specifically, a number of commenters argue that selecting alternative transmission technologies as network upgrades may reduce interconnection costs by providing lower cost transmission solutions to interconnecting new generating facilities³⁰⁰⁷ and may allow for a faster interconnection by providing solutions that can be implemented more quickly.³⁰⁰⁸ Commenters also point out that alternative transmission technologies allow for better use of the existing transmission system,³⁰⁰⁹ can enhance reliability,³⁰¹⁰ and may reduce withdrawals, restudies, and overall interconnection delays.³⁰¹¹ In addition, several commenters argue that decreasing the costs of network upgrades will reduce the number of withdrawals from interconnection queues, which will ultimately create a more efficient interconnection process by reducing the number of restudies triggered by withdrawals.³⁰¹²

³⁰⁰⁵ See MISO Initial Comments at 123 ("Additionally, as noted by the Commission in the proposed reform, although alternative transmission technologies may be useful tools for operations, relying on these tools for planning for interconnection may not be consistent with 'good utility practice' and 'applicable regulatory standards.'").

³⁰⁰⁶ NOPR, 179 FERC ¶ 61,194 at PP 294–295.

³⁰⁰⁷ AEE Initial Comments at 42; EDF Renewables Initial Comments at 14; ENGIE Initial Comments at 12; OMS Initial Comments at 19; Ørsted Initial Comments at 3; SEIA Initial Comments at 40.

³⁰⁰⁸ AEE Initial Comments at 42; OMS Initial Comments at 19; Ørsted Initial Comments at 3; SEIA Initial Comments at 40.

³⁰⁰⁹ Illinois Commission Initial Comments at 14; Joint Fed.-State Task Force on Elec. Transmission, Technical Conference, Docket No. AD21–15–000, recording at 1:16:18–1:24:02 (approx.) (Commissioner Darcie Houck) (July 16, 2023).

³⁰¹⁰ AEE Initial Comments at 42; Ohio Commission Consumer Advocate Initial Comments at 15; Joint Fed.-State Task Force on Elec. Transmission, Technical Conference, Docket No. AD21–15–000, recording at 1:16:18–1:24:02 (approx.) (Commissioner Darcie Houck) (July 16, 2023).

³⁰¹¹ Ørsted Initial Comments at 3, 15–16; R Street Initial Comments at 16; SEIA Initial Comments at 40; WATT Coalition Initial Comments at 2.

³⁰¹² SEIA Initial Comments at 41; WATT Coalition Initial Comments at 2.

Furthermore, commenters argue that alternative transmission technologies offer additional value because they are scalable and modular to address evolving needs and can be redeployed as those needs continue to change.³⁰¹³ We find that failing to evaluate the enumerated alternative transmission technologies renders Commission-jurisdictional rates unjust and unreasonable and fails to ensure that interconnection customers are able to interconnect in a reliable, efficient, transparent, and timely manner.³⁰¹⁴

1584. However, as stated above,³⁰¹⁵ this final rule mandates a process of evaluation of alternative transmission technologies, not outcomes in specific cases, and does not create a presumption in favor of using an alternative transmission technology as a substitute for a traditional network upgrade deemed necessary in a specific case. Rather, under the approach adopted here, in all cases, the transmission provider is required only to evaluate the use of alternative transmission technologies as network upgrades consistent with good utility practice, applicable reliability standards, and other applicable regulatory requirements.³⁰¹⁶ We recognize that, after the transmission provider evaluates the enumerated alternative transmission technologies, the transmission provider, in its sole discretion, may still decide to remedy an identified reliability problem with a traditional network upgrade.

1585. We modify the proposed requirement that transmission providers evaluate the enumerated alternative transmission technologies only at the request of the interconnection customer. Instead, we require transmission providers to evaluate the enumerated alternative transmission technologies in all instances, without a request from an interconnection customer. We find that this approach both ensures that the enumerated alternative transmission technologies are considered in the interconnection process and avoids introducing additional procedural complexity to the interconnection process. This approach, which was suggested by many commenters,³⁰¹⁷ will

³⁰¹³ WATT Coalition Initial Comments at 2–3; WATT Coalition Reply Comments at 5–6.

³⁰¹⁴ NOPR, 179 FERC ¶ 61,194 at P 296; see Clean Energy Associations Reply Comments at 9–10; Environmental Defense Fund Initial Comments at 7; Fervo Reply Comments at 9; NARUC Initial Comments at 38.

³⁰¹⁵ See *supra* P 1582.

³⁰¹⁶ See MISO Initial Comments at 122–123.

³⁰¹⁷ ACORE Initial Comments at 6; AEE Initial Comments at 42; CAISO Initial Comments at 38; Amazon Initial Comments at 6; ELCON Initial Comments at 11; Fervo Energy Reply Comments at

provide the benefits of an evaluation of the enumerated alternative transmission technologies more broadly and consistently and in a more efficient manner. We believe that modifying the proposal addresses concerns raised by commenters about the NOPR proposal.³⁰¹⁸ More specifically, evaluating alternative transmission technologies only by request, as proposed in the NOPR, would create an overly complicated and time-consuming process under which transmission providers evaluate each alternative transmission technology for each interconnection request individually. Commenters also raise concerns about the impact on costs and timing for the entire cluster if only a portion of the cluster requests evaluation of alternative transmission technologies or if interconnection customers within the same cluster disagree about using an alternative transmission technology.³⁰¹⁹ Given these concerns, and the potential for benefits to be gained by the evaluation and use, at the transmission provider's sole discretion, of the enumerated alternative transmission technologies, we find that it would be overly burdensome and complex to require transmission providers to track and process interconnection customer-specific study requests and to resolve conflicts between interconnection customers' different study requests, at the expense of those benefits.

1586. The record before us demonstrates that the requirements we adopt today will not overly burden transmission providers.³⁰²⁰ We find that requiring transmission providers to evaluate the enumerated alternative transmission technologies in each interconnection study will not be a significant additional burden on interconnection queues for those transmission providers that already consider alternative transmission technologies in their interconnection process. Furthermore, we find that the benefits of evaluating and implementing the enumerated alternative transmission technologies outweigh the potential

9; Hannon Armstrong Initial Comments at 2; Invenery Initial Comments at 52–53; R Street Initial Comments at 16; Joint Fed.-State Task Force on Elec. Transmission, Technical Conference, Docket No. AD21–15–000, recording at 1:16:18–1:24:02 (approx.) (Commissioner Darcie Houck) (July 16, 2023).

³⁰¹⁸ Indicated PJM TOs Initial Comments at 55; MISO Initial Comments at 11, 121; MISO TOs Initial Comments at 30; National Grid Initial Comments at 42–43.

³⁰¹⁹ CAISO Initial Comments at 38; Puget Sound Initial Comments at 13; Ameren Initial Comments at 32.

³⁰²⁰ AEE Initial Comments at 44; ENGIE Initial Comments at 13; ACORE Reply Comments at 3–4.

burden or the potential of increased study times. As recognized by commenters and explained above, the evaluation and use, at the transmission provider's sole discretion, of the enumerated alternative transmission technologies could decrease network upgrade costs, withdrawals, and restudies, thereby increasing the efficiency of the interconnection process overall. For these reasons, we disagree with commenters that argue that requiring transmission providers to evaluate the enumerated alternative transmission technologies is contrary to the NOPR's goal of increasing the speed of interconnection queue processing.

1587. We find that, in conducting an evaluation of the enumerated alternative transmission technologies, it is appropriate for transmission providers to continue to retain discretion regarding whether to use each enumerated alternative transmission technology, consistent with the NOPR.³⁰²¹ The requirement is to *evaluate* the enumerated alternative transmission technologies in the interconnection process for feasibility, cost, and time savings and to determine whether, in the transmission provider's sole discretion, an alternative transmission technology should be used as a solution—consistent with good utility practice, applicable reliability standards, and other applicable regulatory requirements.³⁰²² The transmission provider must determine whether using any of the enumerated alternative transmission technologies is an appropriate and reliable network upgrade “that would allow the interconnection customer to flow the output of its generating facility onto the transmission provider's transmission system in a safe and reliable manner.”³⁰²³ The requirement to make

such a determination before allowing for the use of the enumerated alternative transmission technologies addresses concerns that their use may impinge on reliability, delay network upgrades instead of reducing the need for them or obviating the need for them altogether, or fail to address all transmission system issues that a traditional network upgrade would address. We recognize the need to avoid time-consuming delays and costly disputes or litigation over interconnection costs that could arise as a result of this reform.³⁰²⁴

Therefore, we find that, if a transmission provider evaluates the enumerated alternative transmission technologies as required herein and, in its sole discretion, determines not to use any enumerated alternative transmission technologies as an alternative to a traditional network upgrade, the transmission provider has complied with this final rule, including tariffs filed pursuant to this final rule.

1588. Because we modify the NOPR proposal and require transmission providers to evaluate the enumerated alternative transmission technologies in all instances, we find that the final rule will not “effectively require a whole additional set of studies for large areas of the transmission system” or exponentially increase the number of studies needed to consider the various combinations, as Indicated PJM TOs argue could occur under the NOPR proposal.³⁰²⁵ This is because transmission providers will not be evaluating the enumerated alternative transmission technologies for a subset of interconnection customers within a cluster—but rather for the entire cluster.

1589. Regarding WATT Coalition and California Public Utility Commissioner Darcie Houck's request that transmission providers abide by strict standards when studying alternative transmission technologies,³⁰²⁶ we decline to adopt any such standards in

the *pro forma* LGIP and *pro forma* SGIP governing the evaluation of alternative transmission technologies. We find that it is appropriate to continue to rely on transmission providers to use good utility practice, applicable reliability standards, and other applicable regulatory requirements, in their evaluations of alternative transmission technologies, including the enumerated list, because the specific evaluation may depend on the transmission provider's individual transmission system, cluster makeup, and other factors. Similarly, regarding National Grid's concern that studying every potential alternative transmission technology for every interconnection request could cause transmission providers to be penalized for not meeting study deadlines,³⁰²⁷ the final rule does not require the study of all technologies considered alternative transmission technologies but rather the evaluation of the enumerated alternative transmission technologies. Further, we find that the transmission provider—consistent with good utility practice, applicable reliability standards, and other applicable regulatory requirements—retains the sole discretion to determine whether a particular technology in the enumerated list of alternative transmission technologies is appropriate and reliable as a network upgrade, or not, for a given cluster.

1590. We also believe that the requirement that transmission providers evaluate the enumerated alternative transmission technologies for an entire cluster—rather than on an individual interconnection customer-request basis—and the modifications to the enumerated list of alternative transmission technologies (as discussed below) will ease the burden on transmission providers, thereby lessening the risk that they are unable to complete studies by the required deadlines. We note that we are not dictating how a transmission provider must evaluate each enumerated alternative transmission technology on the list in each instance; we recognize that in some cases transmission providers may be able to rapidly determine if a certain enumerated alternative transmission technology is inappropriate for further study. In response to Invenergy's request that transmission providers should provide detailed evaluation reports on why an alternative transmission technology was not selected, transmission providers are required to include an explanation of the results of the evaluation of the required alternative transmission

³⁰²¹ NOPR, 179 FERC ¶ 61,194 at P 299.

³⁰²² See MISO Initial Comments at 122–123 (“Additionally, as noted by the Commission in the proposed reform, although alternative transmission technologies may be useful tools for operations, relying on these tools for planning for interconnection may not be consistent with ‘good utility practice’ and ‘applicable regulatory standards.’”).

³⁰²³ See Order No. 2003, 104 FERC ¶ 61,103 at P 767 (“Both Energy Resource Interconnection Service and Network Resource Interconnection Service provide for the construction of Network Upgrades that would allow the Interconnection Customer to flow the output of its Generating Facility onto the Transmission Provider's Transmission System in a safe and reliable manner”); Order No. 2003–A, 106 FERC ¶ 61,220 at P 404; *pro forma* LGIA art. 9.3 (“Transmission Provider shall cause the Transmission System and the Transmission Provider's Interconnection Facilities to be operated, maintained and controlled in a safe and reliable manner and in accordance with this LGIA”); *Midwest Indep. Transmission Sys. Operator, Inc.*, 138 FERC ¶ 61,233, at P 190 (2012),

reh'g denied, 139 FERC ¶ 61,253 (2012), *partial reh'g granted on other grounds*, 150 FERC ¶ 61,035 (2015). See also *pro forma* LGIA art. 9.4

(“Interconnection Customer shall at its own expense operate, maintain and control the Large Generating Facility and Interconnection Customer's Interconnection Facilities in a safe and reliable manner and in accordance with this LGIA”).

³⁰²⁴ See SPP Initial Comments at 26 (“Even though the Commission has stated that transmission providers retain the discretion regarding whether to use such technologies, the very fact that the transmission provider is required to evaluate them will lead to disputes if the transmission provider then exercises that discretion.”).

³⁰²⁵ Indicated PJM TOs Initial Comments at 55.

³⁰²⁶ WATT Coalition Initial Comments at 3–4; Joint Fed.-State Task Force on Elec. Transmission, Technical Conference, Docket No. AD21–15–000, recording at 1:16:18–1:24:02 (approx.) (Commissioner Darcie Houck) (July 16, 2023).

³⁰²⁷ National Grid Initial Comments at 42–43.

technologies for feasibility, cost, and time savings as an alternative to a traditional network upgrade in the applicable study report. However, we do not direct any additional detailed requirements related to this reporting requirement because we find they are not needed or appropriate. We find the required explanation of the results of the transmission provider's evaluation included in the applicable study report provides sufficient transparency without placing a further burden on transmission providers that would delay the processing of interconnection requests.

1591. Because we modify the NOPR proposal to require transmission providers to evaluate all the enumerated alternative transmission technologies in all instances, *i.e.*, regardless of an interconnection customer requesting such an evaluation, we decline to adopt commenters' request to require transmission providers to evaluate the required alternative transmission technologies by default with an "opt-out" option for interconnection customers. We are not persuaded that there are benefits to including an "opt-out" option in the requirement, and we find it would be overly burdensome and complex to require transmission providers to track and process interconnection customers' requests to "opt-out" of the evaluation of certain alternative transmission technologies. Further, an "opt-out" would run contrary to our goal to have transmission providers evaluate the enumerated technologies in order to achieve beneficial outcomes like decreasing network upgrade costs, withdrawals, and restudies, thereby increasing the efficiency of the interconnection process overall.

1592. As discussed above, the enumerated alternative transmission technologies that transmission providers must evaluate in interconnection studies are: static synchronous compensators, static VAR compensators, synchronous condensers, advanced power flow control, transmission switching, voltage source converters, advanced conductors, and tower lifting. We discuss each technology in turn.

1593. Regarding synchronous and static VAR compensators, we find that, in providing reactive power to the transmission system, such devices could reduce interconnection costs by providing the voltage support where needed for the new generation facility being interconnected to operate reliably, rather than building a traditional network upgrade to resolve the voltage support issues. This potentially results in lower cost network upgrades to

interconnect new generating facilities. ISO-NE states that it already evaluates static synchronous compensators when evaluating interconnection requests.³⁰²⁸ Similarly, as Indicated PJM TOs attest, PJM already considers static synchronous compensators in its interconnection and transmission planning processes.³⁰²⁹ Accordingly, we find that synchronous and static VAR compensators are appropriately included in the list of alternative transmission technologies enumerated in this final rule that transmission providers must evaluate in the interconnection process.

1594. Regarding advanced power flow controls, we find that these devices allow power to be pushed and pulled to alternate lines with spare capacity leading to maximum utilization of transmission capacity and mitigation of overloads. Advanced power flow control devices can be scaled back as needed, providing an advantage over new lines or reconductors.³⁰³⁰ PacifiCorp attests that it often considers the use of advanced power flow control devices as potential alternatives to standard system infrastructure, and Indicated PJM TOs note that PJM and PJM transmission owners already consider the appropriateness of power flow control devices when conducting interconnection studies.³⁰³¹ As discussed above, our decision to modify the NOPR proposal and require transmission providers to evaluate the enumerated alternative transmission technologies in all instances addresses Indicated PJM TOs' statement that evaluation of advanced power flow control devices in the interconnection process would significantly increase the complexity of interconnection studies and thus could cause delays in their completion.³⁰³² We acknowledge the possibility that use of advanced power flow control devices can have impacts on line impedance which may result in issues in other parts of the system, as suggested by MISO. However, the requirement of this Final rule is merely that the transmission provider evaluate each alternative transmission technology, not that they deploy them in all circumstances. We appreciate, and expect, that if a transmission provider's evaluation demonstrates that deployment of advanced power flow control devices would create issues on the transmission provider's system as

described by MISO, it will not select that advanced power flow control as the network upgrade.³⁰³³

1595. We also retain transmission switching on the enumerated list of alternative technologies in this final rule. Transmission switching can be used to route energy around areas with high congestion and improve the overall transfer capability of the system, potentially resulting in lower network upgrade costs. In regard to PacifiCorp's argument that transmission switching is a complex process that can be implemented only under very particular factual scenarios and system conditions, transmission providers are already required to evaluate the impact of the proposed interconnection on the reliability of the transmission system³⁰³⁴ and thus should understand whether the factual scenarios and system conditions exist that would make a transmission switching solution appropriate. In response to Tri-State's question about whether transmission switching is meant to be a remedial action scheme or to create permanent normally open points on the system, this final rule does not prescribe how transmission providers deploy any of the enumerated alternative transmission technologies on their systems if they determine to use them. To Tri-State's concern that transmission switching solutions may be "problematic in highly interconnected systems not operating in an RTO/ISO," we reiterate that transmission providers retain the discretion to determine whether to deploy any of the enumerated alternative transmission technologies, including transmission switching solutions.

1596. We find that the record supports including synchronous condensers and voltage source converters to the list because these technologies similarly may reduce interconnection costs in situations where voltage support is a constraint and where a new or modified transmission line with these technologies may provide a lower cost network upgrade option to interconnect new generating facilities. Specifically, ISO-NE states that it already evaluates synchronous condensers when evaluating interconnection requests,³⁰³⁵ and NARUC and Xcel urge the Commission to include evaluation of synchronous condensers and voltage

³⁰²⁸ ISO-NE Initial Comments at 41.

³⁰²⁹ Indicated PJM TOs Initial Comments at 57.

³⁰³⁰ AEE Initial Comments at 42.

³⁰³¹ PacifiCorp Initial Comments at 43; Indicated PJM TOs at 57.

³⁰³² *Supra* P 1585.

³⁰³³ See also *infra* P 1602.

³⁰³⁴ See *pro forma* LGIP section 7.3; *pro forma* SGIP sections 3.3.1, 3.4.1.

³⁰³⁵ ISO-NE Initial Comments at 41.

source converters in the interconnection process.³⁰³⁶

1597. We also add advanced conductors and tower lifting to the list of alternative transmission technologies enumerated in this final rule. We note the comments arguing that advanced conductors may be beneficial as network upgrades.³⁰³⁷ ACORE explains that deploying advanced conductors can significantly increase transmission capacity and allow for the interconnection of new generating facilities without the construction of new network upgrades.³⁰³⁸ Similarly, we find that tower lifting has the potential to increase transmission line ratings by providing additional clearance from the ground.³⁰³⁹ By increasing transmission line ratings, there will be more “headroom” on the system to address normal and contingency conditions identified in interconnection studies, and likely a reduced need for network upgrades.³⁰⁴⁰ Given these potential benefits to interconnection customers, we require transmission providers to evaluate advanced conductors and tower lifting in the interconnection process.

1598. We remove dynamic line ratings from the list of enumerated alternative transmission technologies proposed in the NOPR. We agree with commenters that the technology may be less beneficial in the interconnection context than in the transmission operations and planning context because, for example, dynamic line ratings’ ability to increase the available interconnection service depends on favorable weather and congestion parameters.³⁰⁴¹ That is, while dynamic line ratings may relieve

congestion to increase available interconnection service temporarily or in the short-term, they may not be an adequate substitute for building interconnection facilities and/or traditional network upgrades identified through the interconnection study process that are needed to reliably interconnect a generating facility to the transmission system during all hours.

1599. We decline to add storage that performs a transmission function to the list of alternative transmission technologies enumerated in this final rule. The Commission has determined that the evaluation of whether a storage resource performs a transmission function requires a case-by-case analysis of either how a particular storage resource would be operated or the requirements set forth in a tariff governing selection of such storage resources. For example, in approving SPP’s proposal to establish a framework under which an electric storage resource may be considered a transmission asset (thereby making the selected storage resources eligible for cost-based rate recovery through transmission rates), the Commission identified five considerations that, together, ensure that a selected storage resource will serve a transmission function.³⁰⁴²

1600. We clarify that transmission providers are not precluded from studying a technology that is not included in the enumerated list of alternative transmission technologies. Under the modified requirement, transmission providers must evaluate the enumerated alternative transmission technologies in all instances, but we are not precluding a transmission provider from studying or evaluating any other technology, including those such as dynamic line ratings that we have determined not to add to the list of technologies enumerated in this final rule. We acknowledge that certain transmission providers already evaluate in certain studies transmission technologies not included in the final rule list.³⁰⁴³ In addition, we clarify that, with respect to this final rule determination, transmission providers are not required to propose and justify on compliance any technology it studies in the interconnection process beyond those required in this final rule.

1601. In the NOPR, the Commission generally proposed a method to allocate the costs of cluster studies and the costs of network upgrades within a cluster

through the interconnection study process.³⁰⁴⁴ With respect to study costs, the Commission sought comment on how costs incurred for evaluating alternative transmission technology study requests would be allocated among interconnection customers in the cluster under a NOPR proposal in which interconnection customers would identify and request particular technologies to be studied.³⁰⁴⁵ Given our modification to the NOPR proposal to require transmission providers to evaluate the enumerated alternative transmission technologies in the *pro forma* LGIP cluster study on behalf of the whole cluster, rather than upon an individual customer’s request, we find that it is not necessary to consider alternative cost allocation methods for cluster study costs and network upgrade costs associated with the enumerated alternative transmission technologies. Specifically, we clarify that the allocation of cluster study costs for, and substation and system network upgrades associated with, the enumerated alternative transmission technologies must be consistent with the allocation of costs for cluster studies and associated substation and system network upgrades for any other network upgrades because the enumerated alternative transmission technologies located on the high-side of the point of interconnection would fall within the definition of substation and system network upgrades,³⁰⁴⁶ and they would be adopted only if they resolve system reliability issues triggered by an interconnection request. In other words, the enumerated alternative transmission technologies must be included among the set of options transmission providers consider when studying a cluster and any implemented enumerated alternative transmission technologies must receive the same cost treatment as any other option.

1602. Accordingly, the cost allocation concerns raised by several commenters in response to the NOPR proposal are now unfounded.³⁰⁴⁷ Regarding MISO’s concern that some alternative transmission technologies may shift the burden of system impacts to other

³⁰³⁶ NARUC Initial Comments at 39; Xcel Initial Comments at 47.

³⁰³⁷ ACORE Initial Comments at 6–7; CTC Global Initial Comments at 6–9; VEIR Initial Comments at 5–6.

³⁰³⁸ ACORE Initial Comments at 7 (citing Jay Caspary and Jesse Schneider, Grid Strategies, LLC, *Opportunities to Use Advanced Conductors to Accelerate Grid Decarbonization*, at 2 (Feb. 2022), <https://acore.org/wp-content/uploads/2022/03/AdvancedConductorstoAccelerateGridDecarbonization.pdf>).

³⁰³⁹ See Ampjack Initial Comments at 4. As with other network upgrades, we note that tower lifting may require a modification to a certificate of public convenience and necessity (CPCN) or similar permit issued by a state utility regulator, which may include tower height limits or other physical restrictions. To the extent the transmission provider considers potential delays or the possibility of not receiving such a state CPCN modification when evaluating potential network upgrades, it should include a similar consideration in its evaluation of alternative transmission technologies.

³⁰⁴⁰ See *id.* at 1, 4.

³⁰⁴¹ Indicated PJM TOs Initial Comments at 56; ISO-NE Initial Comments at 41; NYTOs Initial Comments at 32–33; PacifiCorp Initial Comments at 44; Tri-State Initial Comments at 23; U.S. Chamber of Commerce Initial Comments at 12–13.

³⁰⁴² *Sw. Power Pool, Inc.*, 183 FERC ¶ 61,153, at P 29 (2023).

³⁰⁴³ For example, PacifiCorp notes that it already considers advanced power flow technologies as potential alternatives to standard system infrastructure. PacifiCorp Initial Comments at 43.

³⁰⁴⁴ See NOPR, 179 FERC ¶ 61,194 at PP 82–83, 88–89.

³⁰⁴⁵ *Id.* P 301.

³⁰⁴⁶ Network Upgrades are “the additions, modifications, and upgrades to the Transmission Provider’s Transmission System required at or beyond the point at which the Interconnection Facilities connect to the Transmission Provider’s Transmission System to accommodate the interconnection of the Large Generating Facility to the Transmission Provider’s Transmission System.” *Pro forma* LGIP section 1 (Definitions).

³⁰⁴⁷ AEP Initial Comments at 52–53; Ameren Initial Comments at 32; NextEra Initial Comments at 38; and Tri-State Initial Comments at 23.

parties,³⁰⁴⁸ we find that the possibility of this burden shifting is minimal because the revised *pro forma* LGIP, as adopted in this final rule, requires transmission providers to evaluate the enumerated alternative transmission technologies on a cluster-wide basis for feasibility, cost, and time savings. We recognize that, after the transmission provider evaluates the enumerated alternative transmission technologies, the transmission provider, in its sole discretion, may still decide to remedy an identified reliability problem with a traditional network upgrade.

1603. Regarding cost treatment for the enumerated alternative transmission technologies in the *pro forma* SGIP, the Commission did not propose to require, and this final rule does not adopt, cluster studies for small generator interconnection requests. Accordingly, the study process for small generating facilities in the *pro forma* SGIP remains a serial process and costs for evaluating the enumerated alternative transmission technologies must be allocated to the small generator interconnection request being studied. Likewise, the costs for any implemented enumerated alternative transmission technologies must be allocated to a small generator interconnection customer consistent with the allocation of any other network upgrade costs in the small generator interconnection process.

1604. As explained in section III.A.3 of this final rule, we are not requiring transmission providers to allocate study costs on a pro rata basis, as Fervo Energy requests. Because this final rule does not adopt the NOPR proposal for interconnection customers to request the study of particular technologies, we need not address the arguments raised by NARUC and Indicated PJM TOs related to the study costs associated with that unadopted proposal.

1605. The Commission sought comment on whether transmission providers should be required to evaluate whether alternative transmission technologies can be deployed on a temporary basis to provide provisional interconnection service. We are not persuaded by arguments in favor of such a requirement. While we acknowledge commenters' arguments that alternative transmission technologies could serve as a temporary solution to reduce the overall costs and delays of generator interconnection, we agree with MISO that mandatory evaluation of alternative transmission technologies for provisional interconnection service could hinder ensuring that interconnection customers are able to

interconnect in a reliable, efficient, transparent, and timely manner by adding burden and delay.³⁰⁴⁹

1606. The Commission also sought comment on whether alternative transmission technologies as supplements for, or in the place of, traditional network upgrades was sufficient to guarantee a level of service to accommodate an interconnection customer seeking NRIS, or whether such a network upgrade could only relate to ERIS.³⁰⁵⁰ We agree with commenters that the enumerated alternative transmission technologies may enable NRIS, but such a determination will be dependent on the analysis by the particular transmission provider and the particular technology under evaluation. We decline to adopt Clean Energy Association's proposal that transmission providers be required to post additional information beyond the explanation of the results of the evaluation of each alternative transmission technology. As discussed above, transmission providers must include, in the applicable study report, an explanation of the results of the evaluation of the enumerated alternative transmission technologies for feasibility, cost, and time savings.

1607. We find that the following commenters' proposals are outside the scope of this proceeding and, therefore, we do not address the substance: (1) requiring transmission providers to consider alternative transmission technologies in market operations at the request of the interconnection customer;³⁰⁵¹ (2) adding language to the *pro forma* LGIA that would allow interconnection facilities to convert to distribution or regional transmission facilities;³⁰⁵² and (3) requiring transmission providers to study and implement advanced transmission technologies when network upgrades are needed but cannot be completed within three years of being identified.³⁰⁵³

1608. Because we adopt a requirement for transmission providers to evaluate the enumerated alternative transmission technologies, rather than at the request of the interconnection customer, we do not address comments regarding the following issues, which become moot by this modification to the NOPR proposal: the timing of submission of the alternative transmission technology evaluation request;³⁰⁵⁴ the burden of

proof for a submission of an alternative transmission technology evaluation request;³⁰⁵⁵ whether there should be a limit on alternative transmission technology evaluation requests;³⁰⁵⁶ whether transmission providers and transmission owners should be able to reject alternative transmission technology evaluation requests;³⁰⁵⁷ whether an interconnection customer can request evaluation of an alternative transmission technology not on the required list;³⁰⁵⁸ and whether transmission providers need to perform a separate study for each requested alternative transmission technology.³⁰⁵⁹

1609. We do not find compelling commenters' request that the Commission not require the evaluation of alternative transmission technologies while other proceedings concerning grid enhancing technologies are pending.³⁰⁶⁰ The Commission proposed and received extensive comment on evaluation of alternative transmission technologies in the interconnection process. Based on the record, we find that it is appropriate for the Commission to adopt a modified NOPR proposal to require transmission providers to evaluate the required list of enumerated alternative transmission technologies.

b. Annual Informational Report

i. NOPR Proposal

1610. In the NOPR, in order to add transparency to the evaluation process and deployment of alternative transmission technologies in generator interconnection processes, the Commission proposed to revise the *pro forma* LGIP and *pro forma* SGIP to require transmission providers to submit an annual informational report to the Commission that details whether, and if so how, advanced power flow control, transmission switching, dynamic line ratings, static synchronous compensators, and static VAR compensators were considered in interconnection requests over the last year.³⁰⁶¹ The Commission proposed to create a new docket to collect all annual informational report filings, and proposed that any informational reports that transmission providers file at the Commission would be for informational

Comments at 14–15; Fervo Energy Reply Comments at 9.

³⁰⁵⁵ AECI Initial Comments at 9; NARUC Initial Comments at 40; ISO–NE Initial Comments at 41; NESCOE Reply Comments at 21.

³⁰⁵⁶ EEI Initial Comments at 21.

³⁰⁵⁷ Indicated PJM TOs Reply Comments at 17.

³⁰⁵⁸ National Grid Initial Comments at 42.

³⁰⁵⁹ NARUC Initial Comments at 40.

³⁰⁶⁰ EEI Initial Comments at 20; *see also* Ameren Initial Comments at 30.

³⁰⁶¹ NOPR, 179 FERC ¶ 61,194 at P 302.

³⁰⁴⁸ MISO Initial Comments at 122.

³⁰⁴⁹ MISO Initial Comments at 124.

³⁰⁵⁰ NOPR, 179 FERC ¶ 61,194 at P 301.

³⁰⁵¹ EDF Renewables Initial Comments at 14–15.

³⁰⁵² Enel Initial Comments at 80–81.

³⁰⁵³ Ørsted Reply Comments at 8.

³⁰⁵⁴ Enel Initial Comments at 79; Invenergy Initial Comments at 55; *see also* EDF Renewables Initial

purposes and would neither be formally noticed nor require additional action by the Commission. The Commission sought comment on: (1) whether to require transmission providers to explain why an alternative transmission technology that was considered was not deployed; and (2) the scope of the annual informational report, and whether additional information should be included.

ii. Comments

(a) Comments in Support

1611. A broad group of commenters support the NOPR proposal.³⁰⁶² Many commenters agree that the reports would be beneficial to interconnection customers because they would provide insight as to why alternative transmission technologies were or were not deployed.³⁰⁶³ Some commenters contend that the annual informational report will allow interconnection customers to better tailor their requests to consider alternative transmission technologies, such that those requests are most likely to be successful.³⁰⁶⁴ Similarly, commenters argue that the annual informational reports would allow sharing of best practices in the industry on the use of these technologies and their evaluation, and would lessen concerns over the potential risks of new technologies by socializing examples of their consideration and implementation.³⁰⁶⁵ ELCON and Fervo Energy assert that the annual informational reports will provide interconnection customers with additional information to ascertain the feasibility of certain configurations and interconnection points.³⁰⁶⁶

1612. Additionally, Enel states that transmission providers can be resistant to using advanced transmission technologies, and the annual informational report will allow the Commission to evaluate whether a transmission provider is artificially restricting the use of advanced transmission technologies, similar to the study completion metrics required by

the Commission in Order No. 845.³⁰⁶⁷ Some commenters argue that if the Commission observes that transmission providers are routinely citing certain technical or other reasons for not deploying certain technologies, the annual informational report will provide a record from which it can initiate action in a separate proceeding to remedy the issue.³⁰⁶⁸

1613. Several commenters argue in support of the annual informational report to promote transparency between market participants, interconnection customers, and regulators.³⁰⁶⁹ Lastly, commenters argue that the additional work and obligation for the annual informational report would be an effective use of limited resources to benefit the efficiency, transparency, and modernization of the interconnection process.³⁰⁷⁰

(b) Comments in Opposition

1614. Some commenters oppose the proposal on the basis that it would be too burdensome.³⁰⁷¹ Xcel Energy does not believe annual informational reports are necessary and requests that any informational reporting requirements be limited to decrease the burden on the engineers that need to focus on performing the interconnection studies.³⁰⁷² PacifiCorp states that imposing an additional reporting obligation on transmission providers would not only be duplicative, but it would add to an already significant list of administrative tasks that transmission providers must undertake to comply with existing, and proposed, interconnection obligations, without clear benefit.³⁰⁷³ NYTOs believe that preparing and submitting an annual informational report with detailed analysis of the consideration of alternative transmission technologies would require dedicated resources on the part of the transmission provider.³⁰⁷⁴ MISO asserts that the annual informational report at this time may not be useful, especially in the already transparent RTO/ISO context, and could divert scarce staff resources from the work of moving forward in the

study and agreements process for implementing much-needed new generation.³⁰⁷⁵ Similarly, Indicated PJM TOs state that PJM currently maintains a publicly available website that details all the types of network upgrades necessary to support interconnections, including the types of devices identified here by the Commission.³⁰⁷⁶ CAISO also opposes the proposal because CAISO believes that it is contrary to the goal of reducing interconnection queue backlogs by adding more studies and reporting requirements onto transmission provider staff.³⁰⁷⁷

1615. Idaho Power believes that the report may simply result in more disputes over why one entity allows a particular technology, while another one does not.³⁰⁷⁸

1616. CAISO and MISO also argue that there is limited value to interconnection reports.³⁰⁷⁹ CAISO argues that in this NOPR, the Commission recognizes that imposing reporting requirements in Order No. 845 failed to incentivize transmission providers to meet their study obligations, and thus the Commission should not repeat that mistake here by burdening transmission provider staff with yet another reporting requirement.³⁰⁸⁰ Similarly, MISO points out that neither the Commission nor any commenter used the interconnection queue reports required by Order No. 845 to discuss the topic of study delays.³⁰⁸¹

(c) Comments on Specific Proposal

1617. Several commenters emphasize the importance of transparency when an alternative transmission technology is not selected.³⁰⁸² ENGIE asks the Commission to require transmission providers to provide publicly available information addressing why or why not an alternative transmission technology was adopted or rejected in a specific case.³⁰⁸³ CTC Global believes that transmission providers should be required to include explanations regarding the alternative transmission technologies considered, deployed, or rejected in the annual reports.³⁰⁸⁴ CTC

³⁰⁶² APPA-LPPC Initial Comments at 32; Clean Energy Buyers Initial Comments at 5; ELCON Initial Comments at 8; Enel Initial Comments at 81; Eversource Initial Comments at 37–38; CTC Global Initial Comments at 13; NARUC Initial Comments at 41; Pine Gate Initial Comments at 59; Public Interest Organizations Initial Comments at 55; SEIA Initial Comments at 41; WATT Coalition Initial Comments at 3.

³⁰⁶³ NARUC Initial Comments at 41; Pine Gate Initial Comments at 59.

³⁰⁶⁴ Pine Gate Initial Comments at 59.

³⁰⁶⁵ CTC Global Initial Comments at 13; Eversource Initial Comments at 37–38.

³⁰⁶⁶ ELCON Initial Comments at 8; Fervo Energy Reply Comments at 9–10.

³⁰⁶⁷ Enel Initial Comments at 81.

³⁰⁶⁸ CTC Global Initial Comments at 13; Pine Gate Initial Comments at 59.

³⁰⁶⁹ Eversource Initial Comments at 37–38; NARUC Initial Comments at 41.

³⁰⁷⁰ Enel Initial Comments at 81; Eversource Initial Comments at 37–38.

³⁰⁷¹ Ameren Initial Comments at 33; CAISO Initial Comments at 39; MISO Initial Comments at 125; NYTOs Initial Comments at 33; PacifiCorp Initial Comments at 44; Xcel Initial Comments at 48.

³⁰⁷² Xcel Initial Comments at 48.

³⁰⁷³ PacifiCorp Initial Comments at 44.

³⁰⁷⁴ NYTOs Initial Comments at 33.

³⁰⁷⁵ MISO Initial Comments at 125; MISO Reply Comments at 18.

³⁰⁷⁶ Indicated PJM TOs Initial Comments at 57–58.

³⁰⁷⁷ CAISO Initial Comments at 38.

³⁰⁷⁸ Idaho Power Initial Comments at 16.

³⁰⁷⁹ CAISO Initial Comments at 39; MISO Reply Comments at 18–19.

³⁰⁸⁰ CAISO Initial Comments at 39.

³⁰⁸¹ MISO Reply Comments at 18–19.

³⁰⁸² CTC Global Initial Comments at 14, 17–18; ENGIE Initial Comments at 13; Eversource Initial Comments at 37–38; Fervo Energy Initial Comments at 7.

³⁰⁸³ ENGIE Initial Comments at 13.

³⁰⁸⁴ CTC Global Initial Comments at 17–18.

Global requests that the Commission also mandate reporting on the energy efficiency of the components used in various network upgrades and through the interconnection process.³⁰⁸⁵

Eversource suggests that, in addition to the five technologies listed in the NOPR, transmission providers be allowed to provide reporting on any other grid enhancing technology or alternative transmission technology that was considered during the prior year.³⁰⁸⁶

1618. In contrast, Ameren argues that, if the Commission imposes this reporting burden on transmission providers, it should not further exacerbate the burden by requiring the transmission provider to also report explanations of common obstacles to the use of these alternative transmission technologies.³⁰⁸⁷ Instead, Ameren states that the Commission should encourage interconnection customers and transmission providers to share with Commission staff through a technical conference or other forum the types of technologies being considered and whether adopted. Ameren suggests that this type of information gathering should be undertaken before the Commission imposes specific reforms or reporting requirements.

iii. Commission Determination

1619. We decline to adopt the NOPR proposal to require transmission providers to submit an annual informational report to the Commission that details whether, and if so how, the list of alternative transmission technologies were considered in interconnection studies over the last year. We are persuaded by commenters' arguments that the time and resources required to produce the annual informational report may hinder the ability to increase the speed of interconnection queue processing.³⁰⁸⁸ We find that these challenges outweigh the incremental increased transparency to the evaluation process and deployment of alternative transmission technologies in generator interconnection processes, particularly in light of additional reporting requirements in other parts of this final rule.

1620. Specifically, the annual informational report would be duplicative of the requirement in section 7.3 of the *pro forma* LGIP and sections 3.3.6 and 3.4.10 of the *pro*

forma SGIP that we adopt in this final rule. Under these provisions, transmission providers must explain how the required alternative transmission technologies were evaluated for feasibility, cost, and time savings in each *pro forma* LGIP cluster study report or *pro forma* SGIP feasibility study and system impact study reports. The description of the results of the evaluation required in these reports should provide transparency into the evaluation process and deployment of alternative transmission technologies in generator interconnection processes. In response to Enel's argument that an annual informational report will allow the Commission to evaluate if a transmission provider is artificially restricting the use of alternative transmission technologies, we find that this concern is adequately addressed through the modified requirement that transmission providers evaluate all required alternative transmission technologies by default in all studies and restudies.

3. Modeling and Ride-Through Requirements for Non-Synchronous Generating Facilities

a. Modeling Requirements

i. Need for Reform and NOPR Proposal

1621. In the NOPR, the Commission preliminarily found that the *pro forma* LGIP and *pro forma* SGIP may be unduly discriminatory or preferential to the extent that they do not require non-synchronous generating facilities to provide accurate and validated models to transmission providers during the generator interconnection process.³⁰⁸⁹ Specifically, the Commission noted that, while Attachment A to Appendix 1 of the *pro forma* LGIP and Attachment 2 of the *pro forma* SGIP require all generating facilities to submit certain types of information, the information required is only sufficient to accurately model the behavior of synchronous generating facilities. The Commission stated its concern that, without a reform to require interconnection customers developing non-synchronous generating facilities³⁰⁹⁰ to provide sufficiently accurate and validated models, interconnection studies may not identify the appropriate interconnection

facilities and network upgrades, which could lead to unjust and unreasonable rates for interconnection service.³⁰⁹¹

1622. The Commission proposed to revise Attachment A to Appendix 1 of the *pro forma* LGIP and Attachment 2 of the *pro forma* SGIP to ensure that all interconnection customers requesting to interconnect a non-synchronous generating facility must provide the transmission provider with the models needed for accurate interconnection studies.³⁰⁹² Pursuant to this proposal, interconnection customers requesting to interconnect a non-synchronous generating facility would be required to provide models that contain the details necessary to accurately model the performance of the generating facility in response to system disturbances in accordance with the control system settings that would be used by the interconnection customer during the commissioning and operation of the generating facility.

1623. Specifically, the Commission proposed to require each interconnection customer requesting to interconnect a non-synchronous generating facility to submit to the transmission provider: (1) a validated, user-defined root mean square (RMS) positive sequence dynamic model; (2) an appropriately parameterized, generic library RMS positive sequence dynamic model, including a model block diagram of the inverter control system and plant control system, that corresponds to a model listed in a new table of acceptable models or a model otherwise approved by WECC; and (3) a validated EMT model, if the transmission provider performs an EMT study as part of the interconnection study process.³⁰⁹³

1624. With regard to the validated, user-defined RMS positive sequence dynamic model, the Commission proposed to define a user-defined model as any set of programming code created by equipment manufacturers or developers that captures the latest features of controllers that are mainly software-based and represents the entities' control strategies but does not necessarily correspond to any particular generic library model.³⁰⁹⁴ The Commission explained that in order for this model to be "validated," it must be confirmed that the equipment behavior is consistent with the model behavior, and described how the interconnection customer may make such confirmation.

³⁰⁸⁹ NOPR, 179 FERC ¶ 61,194 at P 318.

³⁰⁹⁰ Non-synchronous generating facilities are "connected to the bulk power system through power electronics, but do not produce power at system frequency (60 Hz)." They "do not operate in the same way as traditional generators and respond differently to network disturbances." *Reactive Power Requirements for Non-Synchronous Generation*, Order No. 827, 81 FR 40793 (June 23, 2016), 155 FERC ¶ 61,277, at P 10 n.24 (2016).

³⁰⁹¹ NOPR, 179 FERC ¶ 61,194 at P 319.

³⁰⁹² *Id.* P 328.

³⁰⁹³ *Id.* P 329.

³⁰⁹⁴ *Id.* P 330.

³⁰⁸⁵ *Id.* at 14.

³⁰⁸⁶ Eversource Initial Comments at 37–38.

³⁰⁸⁷ Ameren Initial Comments at 33.

³⁰⁸⁸ MISO Initial Comments at 125; MISO Reply Comments at 18; NYTOs Initial Comments at 33; PacifiCorp Initial Comments at 44; Xcel Initial Comments at 48.

1625. With regard to the appropriately parameterized, generic library RMS positive sequence dynamic model, the Commission proposed a table of acceptable generic library models based on the current WECC list of approved dynamic models for renewable energy generating facilities.³⁰⁹⁵ The Commission noted that WECC's list of approved dynamic models has also been integrated into NERC reliability guidelines and that these models represent the current state of the art with regard to dynamic modeling requirements for non-synchronous generating facilities.

1626. The Commission stated that it believed that these models represent the full spectrum of modeling data that transmission providers need to perform accurate interconnection studies for non-synchronous generating facilities.³⁰⁹⁶ The Commission also recognized that the modeling data proposed to be required from non-synchronous generating facilities may be more voluminous than that required of synchronous generating facilities; however, the Commission noted that this data submission requirement is intended to result in a comparable level of modeling accuracy among all generating facilities.

1627. The Commission stated that an interconnection customer's failure to provide the above information within the deadlines established in the *pro forma* LGIP and *pro forma* SGIP would make the interconnection request incomplete and would be considered invalid in accordance with section 3.4.3 of the *pro forma* LGIP and section 1.3 of the *pro forma* SGIP.³⁰⁹⁷ Pursuant to those provisions, if the interconnection customer does not cure the deficiency within the 10-business day cure period, the interconnection request will be considered withdrawn pursuant to section 3.7 of the *pro forma* LGIP and section 1.3 of the *pro forma* SGIP. The Commission also proposed to require that any proposed modification of the interconnection request be accompanied by updated models of the proposed generating facility.³⁰⁹⁸

1628. The Commission sought comment on: (1) whether the proposed reforms are necessary and/or sufficient to ensure that interconnection customers proposing non-synchronous generating facilities would submit models during the generator interconnection process that accurately reflect the behavior of their proposed

generating facility; (2) whether the inclusion of the table based on NERC guidelines that cite WECC-approved models is appropriate; and (3) if not, how the Commission could require interconnection customers to submit models that are widely known in industry to be accurate without listing specific models.³⁰⁹⁹

ii. Comments

(a) Comments in Support

1629. Many commenters support the NOPR proposal.³¹⁰⁰ SPP states that it has the highest penetration of IBRs³¹⁰¹ of any RTO/ISO, so it is particularly sensitive to potential harm that could occur if those resources fail to perform as expected.³¹⁰² ISO-NE argues that data issues are one of the largest causes of study delays in its region, and requiring data accuracy will improve study processing time and support first-ready, first-served reforms.³¹⁰³ NERC contends that the existing interconnection process does not provide sufficiently accurate and validated models for IBRs.³¹⁰⁴

(b) Comments in Opposition

1630. Several commenters oppose the NOPR proposal in its entirety,³¹⁰⁵ while additional commenters express concerns about specific aspects. Pine Gate asserts that the Commission should not incorporate requirements into the *pro forma* LGIP and *pro forma* SGIP that are already being addressed by NERC

through the standards development process.³¹⁰⁶ Pine Gate states that the *pro forma* LGIA and *pro forma* SGIA require interconnection customers to remain compliant with the applicable reliability standards, and recommends that the Commission address these modeling and performance reforms under the generic statement regarding compliance with applicable NERC Reliability Standards or by adding a similar statement in each applicable section of article 9 in the *pro forma* LGIA.³¹⁰⁷

1631. NYISO argues that the final rule should not include a modeling requirement because it would be inefficient and necessitate a rebuild of NYISO's study base case.³¹⁰⁸ NYISO explains that, if the NOPR proposal is adopted, its interconnection study analysis would take much longer to ensure accurate results, significantly slowing the interconnection process.

1632. ENGIE argues that the required models in the NOPR proposal are very detailed, there are few consultants that perform this modeling, and the value obtained is low because the study likely will become outdated as project components are substituted for more advanced technologies. ENGIE recommends requiring a power flow and dynamic model, which it contends provides sufficient information on reliability impacts.³¹⁰⁹

(c) Comments on Specific Proposal

(1) Cure Period for Modeling Information

1633. AES asserts that a 10-day cure period for interconnection customers to correct or provide additional information on models for non-synchronous generating facilities is not adequate and that no less than a 20 business-day cure period is needed.³¹¹⁰

(2) Transmission Provider Requirements

1634. SEIA requests that the Commission modify the NOPR proposal to require transmission providers to make available to interconnection customers the necessary system data needed to create accurate models, provide clear modeling requirements and validation guidelines and procedures,³¹¹¹ and engage stakeholders before making any modeling changes.

³⁰⁹⁹ *Id.* P 335.

³¹⁰⁰ AEP Initial Comments at 54; APPA-LPPC Initial Comments at 33; APS Initial Comments at 24; CAISO Initial Comments at 39; Clean Energy Associations Initial Comments at 65; EEI Initial Comments at 23; NERC Initial Comments at 9–10; EPRI Initial Comments at 19; Eversource Initial Comment at 38; ISO-NE Initial Comments at 42; MISO Initial Comments at 125; MISO TOs Initial Comments at 33; NARUC Initial Comments at 42; National Grid Initial Comments at 44; North Carolina Commission and Staff Initial Comments at 27; NRECA Initial Comments at 48; NYTOs Initial Comments at 33; Ohio Commission Initial Comments at 17; OMS Initial Comments at 20; PacifiCorp Initial Comments at 45; PPL Initial Comments at 25; R Street Initial Comments at 17; SPP Initial Comments at 27; U.S. Chamber of Commerce Initial Comments at 13.

³¹⁰¹ “Inverter-based resource” (IBR) refers to a resource that is asynchronously connected to the transmission system and is either completely or partially interfaced with the bulk power system through power electronics. See Reliability Guideline: BPS-Connected Inverter-Based Resource Performance, at vii, https://www.nerc.com/comm/RSTC_Reliability_Guidelines/Inverter-Based_Resource_Performance_Guideline.pdf. The term “non-synchronous generating facilities” refers to the same resources.

³¹⁰² SPP Initial Comments at 27.

³¹⁰³ ISO-NE Initial Comments at 42.

³¹⁰⁴ NERC Initial Comments at 18.

³¹⁰⁵ ENGIE Initial Comment at 13–14; NYISO Initial Comments at 53–54; Pine Gate Initial Comments at 60–61; SEIA Initial Comments at 41.

³¹⁰⁶ Pine Gate Initial Comments at 60.

³¹⁰⁷ *Id.* at 60–61 (citing *pro forma* LGIA art. 9.1).

³¹⁰⁸ NYISO Initial Comments at 53–54.

³¹⁰⁹ ENGIE Initial Comments at 13–14.

³¹¹⁰ AES Initial Comments at 25–26.

³¹¹¹ SEIA Initial Comments at 42–43 (citing, e.g., CAISO, Electromagnetic Transient Modeling Requirements (Apr. 14, 2021), http://www.caiso.com/Documents/CaliforniaISO_ElectromagneticTransientModelingRequirements.pdf).

³⁰⁹⁵ *Id.* P 331.

³⁰⁹⁶ *Id.* P 332.

³⁰⁹⁷ *Id.* P 333.

³⁰⁹⁸ *Id.* P 334.

(3) Models Not Available Early in Interconnection Study Process

1635. Multiple commenters argue that accurate models for non-synchronous generating facilities may not be available early in the interconnection study process and may need to be updated during the process.³¹¹² Pine Gate and Public Interest Organizations assert that the Commission should revise the NOPR proposal to allow for later submission of such models to reduce the administrative burden on transmission providers and interconnection customers.³¹¹³

1636. SEIA requests that the Commission modify the NOPR proposal to require interconnection customers to provide all operating models within one year before the commercial operation date of the generating facility, so that the models reflect the most accurate operating information.³¹¹⁴ Clean Energy Associations assert that models requested very early in the interconnection study process, before product feature details have been finalized, may need to be updated prior to commercial operation, and argue that minor model changes should not result in excessive triggering of material modification rules.³¹¹⁵

1637. Alliant Energy and PPL state that technical information provided at the time an interconnection request is submitted can become outdated during the interconnection study process,³¹¹⁶ and Alliant Energy asserts that the Commission should therefore provide for flexibility as to when and how required information for modeling requirements is provided.³¹¹⁷ Ørsted argues that offshore wind interconnection customers may not be able to provide a validated model at the time of the interconnection request due to long lead times in generating facility development and equipment that is still being developed.³¹¹⁸

1638. EPRI suggests that an alternative approach to the NOPR proposal is to require the use of models that generally conform to the capability and

performance standards Institute of Electrical and Electronics Engineers (IEEE) Standard 2800–022 and IEEE Standard 1547–2018 during the interconnection study process, and notes that such studies are subject to further assessment once a detailed, site-specific model is available.³¹¹⁹

(4) RMS Models

1639. Several commenters request modifications to the proposed requirements for RMS models.³¹²⁰ Tesla and SEIA argue that the Commission should require transmission providers to accept user-defined library RMS positive sequence dynamics models, as these models better reflect the actual technology intended to be used by the resource, results in a much greater degree of modeling accuracy, and can help support greater penetration of renewable resources.³¹²¹ In addition, Tesla suggests that the Commission seek informational submissions from transmission providers regarding software tools and resources needed to integrate more accurate user-defined RMS modeling. Clean Energy Associations argue that the transmission provider should have discretion to require a user-defined RMS model, a generic library RMS model (with site-specific parameterization), or both, instead of always being required to collect both.³¹²² MISO encourages the Commission to require that the user-defined model be compatible with the transmission provider's software.³¹²³ Further, MISO requests that the Commission confirm that the user-defined model meets the transmission provider's MOD–032–1 requirements. Longroad Energy recommends that the Commission require NERC to improve the degree to which power flow software vendors allow accurate modeling of IBR technology before the Commission establishes modeling standards that might stifle technological improvements.³¹²⁴

1640. Other commenters express concern with the difficulties of user-defined models.³¹²⁵ Eversource requests that the Commission specify that all positive sequence models provided

must be non-proprietary and accessible to neighboring utilities, system operators, and other entities that need to access them.³¹²⁶ ISO–NE asserts that it does not accept user-defined models under its interconnection study procedures and requests that the final rule allow for a process where accurate, working, non-proprietary models are provided and screened in advance of the study process.³¹²⁷

(5) Model Validation

1641. Some commenters argue that the Commission should provide further direction regarding model validation requirements for non-synchronous generating facilities.³¹²⁸ NERC and SDG&E argue that reliability assessments indicate that model validation with actual installed equipment and a “true-up” of generator interconnection modeling would help ensure proper analysis and studies prior to commissioning.³¹²⁹ NERC recommends that the Commission enhance the interconnection process by ensuring more rigorous plant commissioning, with both the interconnection customer and the transmission provider signing off on models used in studies as compared with actual installed equipment.³¹³⁰ In addition, NERC asks the Commission to require transmission providers to conduct quality review of models before study and require interconnection customers to satisfy quality review milestones.³¹³¹

1642. Tesla argues that, in lieu of multiple attestations or test data, the Commission should develop an approach to validation that requires interconnection customers to submit “model-to-model” and “product-to-model” benchmarking data for non-synchronous generating facilities.³¹³²

1643. Clean Energy Associations assert that the Commission should add language that provides that the attestation required for model validation be the best available by the original equipment manufacturer at the time of model delivery.³¹³³ In addition, Clean Energy Associations and Ørsted argue that the Commission should define the

³¹¹² Alliant Energy Initial Comments at 10–11; Clean Energy Associations Initial Comments at 66; EPRI Initial Comments at 17–18; NextEra Initial Comments at 40; Ørsted Initial Comments at 17; Pine Gate Initial Comments at 61; PPL Initial Comments at 25; Public Interest Organizations Reply Comments at 13; SEIA Initial Comments at 42.

³¹¹³ Pine Gate Initial Comments at 61; Public Interest Organizations Reply Comments at 13.

³¹¹⁴ SEIA Initial Comments at 42.

³¹¹⁵ Clean Energy Associations Initial Comments at 66.

³¹¹⁶ Alliant Energy Initial Comments at 10–11; PPL Initial Comments at 25.

³¹¹⁷ Alliant Energy Initial Comments at 10–11.

³¹¹⁸ Ørsted Initial Comments at 17.

³¹¹⁹ EPRI Initial Comments at 18.

³¹²⁰ Clean Energy Associations Initial Comments at 65–66; Eversource Initial Comments at 39; ISO–NE Initial Comments at 42–43; MISO Initial Comments at 125; SEIA Initial Comments at 43; Tesla Initial Comments at 11.

³¹²¹ SEIA Initial Comments at 43; Tesla Initial Comments at 11.

³¹²² Clean Energy Associations Initial Comments at 65–66.

³¹²³ MISO Initial Comments at 125.

³¹²⁴ Longroad Energy Reply Comments at 20.

³¹²⁵ Eversource Initial Comments at 39; ISO–NE Initial Comments at 42.

³¹²⁶ Eversource Initial Comments at 39.

³¹²⁷ ISO–NE Initial Comments at 43.

³¹²⁸ Clean Energy Associations Initial Comments at 66–67; NERC Initial Comments at 18–20; EPRI Initial Comments at 14–15; Ørsted Initial Comments at 16, 18; SDG&E Reply Comments at 3; Tesla Initial Comments at 10.

³¹²⁹ NERC Initial Comments at 18; SDG&E Reply Comments at 3.

³¹³⁰ NERC Initial Comments at 18.

³¹³¹ *Id.* at 20.

³¹³² Tesla Initial Comments at 10.

³¹³³ Clean Energy Associations Initial Comments at 66.

phrase “accurate and validated models.”³¹³⁴ Clean Energy Associations explain that it is common practice to submit an interconnection request with advanced, next-generation equipment that the manufacturer may still be developing, in which case the product and validated models may not be available at the time of the interconnection request, and request that the Commission allow transmission providers flexibility to accommodate such new equipment in their interconnection studies.³¹³⁵

1644. Clean Energy Associations and Ørsted assert that, if accurate and validated models require a comparison with unit level factory tests, then this may not be feasible for offshore wind farms, especially if they are connecting with HVDC transmission technology.³¹³⁶ They explain that these types of configurations are often project-specific and do not have a definition of a “validated model.” Ørsted also requests that the Commission explain why a “model block diagram of the inverter control system and plant control system” is necessary given the availability of WECC model block diagrams in simulation tools.³¹³⁷

1645. EPRI argues that the Commission should modify the language in the *pro forma* LGIA and *pro forma* SGIA to ensure that all models are validated and appropriately parameterized.³¹³⁸ EPRI contends that the NOPR proposal fails to provide adequate directions and requirements with respect to model validation, testing, verification, and conformity assessment, as required during various stages of the interconnection process. EPRI asserts that a “validated” plant model would not be available during the interconnection study stage because validation of the plant model is not possible—within reasonable efforts—until after the commissioning and commercial operation of the generating facility. EPRI states that alternatives to this would be requiring generic models that are appropriately parameterized and conform to IEEE Standard 2800–2022 requirements.

(6) Table of Acceptable RMS Models

1646. Several commenters agree that a table of acceptable RMS models based on NERC guidelines that cite WECC-

approved models is appropriate.³¹³⁹ Ameren asserts that the Commission should provide a table based on NERC guidelines that cite WECC-approved models as one but not the only example.³¹⁴⁰ Shell agrees that a table based on NERC guidelines is appropriate as long as the functionality and proprietary controls are adequately reflected (e.g., mimic the actual inverter performance of manufacturers’ models).³¹⁴¹ Shell explains that a generic model may not be able to support the operational characteristics of inverters. SPP states that, in its experience, some manufacturers do not support WECC-approved generic dynamics models and that having Commission support for more specific, detailed, and vetted modeling information requirements will be helpful to improve data quality and access.³¹⁴²

1647. R Street and EPRI offer alternatives to a table based on NERC guidelines that cite WECC-approved models.³¹⁴³ R Street argues that providing a list of models in the final rule is not prudent given the dynamic nature of the table, and that the list should instead be posted on relevant public industry websites, including those of NERC.³¹⁴⁴ EPRI states that one alternative could be to include a reference and hyperlink to the NERC and WECC-approved models lists.³¹⁴⁵ EPRI also suggests that if the Commission retains the table, it should consider revising the description of the DER_A model to add the word “aggregated” to the description and also consider adding columns with the model names from other applicable software tools.

(7) EMT Modeling

1648. NERC and EPRI support the EMT modeling proposal in the NOPR.³¹⁴⁶ NERC recommends that all non-synchronous generating facilities perform EMT models prior to interconnection for consideration by transmission operators and planners.³¹⁴⁷ NERC contends that event analysis underscores the value of EMT studies in helping manage reliability

risks of the modern transmission system.

1649. EPRI agrees that performing EMT studies should be at the discretion of the transmission provider.³¹⁴⁸ However, EPRI recommends collecting validated and appropriately parametrized EMT models during the interconnection process regardless of whether the transmission provider performs an EMT study because an EMT study may become necessary in the future, and the interconnection stage is the best time to obtain models due to the close coordination between interconnection customers, consultants, equipment manufacturers, and generating facility designers. EPRI also suggests that an industry-accepted generic EMT model could be required in lieu of a validated EMT model.³¹⁴⁹

1650. Clean Energy Associations argue that the Commission should require submission of an EMT model one year before the scheduled commercial operation date of the non-synchronous generating facility if the transmission provider performs an EMT study as part of the interconnection study process.³¹⁵⁰ Clean Energy Associations assert that, if the Commission moves forward with a requirement for interconnection customers to provide EMT models, it should require the transmission provider and its consultants to protect these models with the highest degree of confidentiality because these models contain proprietary and highly commercially sensitive material that could pose a reliability risk if obtained by malicious actors.

1651. Several commenters oppose the EMT modeling proposal.³¹⁵¹ AES contends that EMT modeling is not yet used widely in the industry and thus should not be adopted as a minimum standard.³¹⁵²

1652. Longroad Energy argues that EMT studies are more expensive than transient stability studies, require highly specialized engineering experience to perform, and are limited to modeling a fraction of a transmission provider’s transmission system.³¹⁵³ Longroad Energy asserts that the Commission should continue to allow transmission providers the discretion to determine where such studies will meaningfully

³¹³⁴ *Id.*; Ørsted Initial Comments at 16, 18.

³¹³⁵ Clean Energy Associations Initial Comments at 67.

³¹³⁶ *Id.* at 66–67; Ørsted Initial Comments at 16–17.

³¹³⁷ Ørsted Initial Comments at 18.

³¹³⁸ EPRI Initial Comments at 14–15.

³¹³⁹ Ameren Initial Comments at 34; Bonneville Initial Comments at 24; Shell Initial Comments, app. A, at vi; Tri-State Initial Comments at 24.

³¹⁴⁰ Ameren Initial Comments at 34.

³¹⁴¹ Shell Initial Comments, app. A, at vi.

³¹⁴² SPP Initial Comments at 28.

³¹⁴³ EPRI Initial Comments at 20; R Street Initial Comments at 17.

³¹⁴⁴ R Street Initial Comments at 17.

³¹⁴⁵ EPRI Initial Comments at 20.

³¹⁴⁶ *Id.* at 15, 19; NERC Initial Comments at 21.

³¹⁴⁷ NERC Initial Comments at 21.

³¹⁴⁸ EPRI Initial Comments at 19.

³¹⁴⁹ *Id.* at 15.

³¹⁵⁰ Clean Energy Associations Initial Comments at 68–70.

³¹⁵¹ AES Initial Comments at 26; Bonneville Initial Comments at 24; Invenergy Initial Comments at 57–58; Longroad Energy Reply Comments at 21; SEIA Initial Comments at 41–42.

³¹⁵² AES Initial Comments at 26.

³¹⁵³ Longroad Energy Reply Comments at 21.

impact the interconnection requirements for an interconnection request. Further, Longroad Energy asserts that the Commission should require transmission providers to publish studies demonstrating the need for EMT studies to prevent unnecessarily imposing a costly, time-consuming step in the interconnection study process.

1653. SEIA asserts that EMT models are not yet industry standard models, require significant processing power compared to RMS models, and are not necessarily more accurate than RMS models.³¹⁵⁴ Bonneville asserts that it has found that EMT modeling studies are rarely necessary, and therefore any requirement to provide EMT models or studies should be left to the transmission provider's discretion.³¹⁵⁵

(d) Requests for Clarification

1654. Invenergy requests that the Commission clarify that, if a validated EMT model is unavailable at the time of submission of an interconnection request: (1) whether the interconnection request may proceed and provide a generic EMT model, if available; and (2) if a validated EMT model is determined to be necessary, whether the interconnection customer may submit this information by the time of cluster restudy, or as soon thereafter as it becomes available from the manufacturer.³¹⁵⁶

1655. APS requests clarity from the Commission on the process for curing deficiencies with respect to information provided by the interconnection customer, such as the number of times an interconnection customer is allowed to provide inaccurate data and cure deficiencies, before an interconnection request is deemed withdrawn.³¹⁵⁷

(e) Miscellaneous

1656. ClearPath asserts that the Commission should consider how the NOPR proposal will align with technological advancements and supply chain challenges.³¹⁵⁸ ClearPath explains that the average interconnection queue wait time is 3.7 years, which may present opportunities for interconnection customers to adopt newer, more advanced equipment after they enter the interconnection queue.

ClearPath further explains that supply chain challenges may force an interconnection customer to change equipment procurement unexpectedly while in the interconnection queue, and requests that the Commission explain whether a change in equipment that necessitates submitting new models and data is considered a material modification.

1657. Consumers Energy notes that NERC is currently in the interconnection data gathering process, potentially making inclusion of additional requirements within the rulemaking duplicative and recommends consistency between NERC and Commission interconnection improvement efforts.³¹⁵⁹

1658. EPRI states that the NOPR proposal does not specify information and data that the transmission providers may need to provide to the interconnection customer during the design stage (e.g., acceptable voltage ranges, protection details, short circuit levels, etc.).³¹⁶⁰ EPRI asserts that the final rule could consider the list of data from Annex H of IEEE 2800–2022, which includes definitions that could help define the combined generating and storage service level MW of a generating facility referred to in the NOPR proposal, including the continuous rating, continuous absorption rating, and short-term rating for IBRs.

iii. Commission Determination

1659. We adopt the NOPR proposal to revise Attachment A to Appendix 1 of the *pro forma* LGIP and Attachment 2 of the *pro forma* SGIP to require each interconnection customer requesting to interconnect a non-synchronous generating facility to submit to the transmission provider: (1) a validated user-defined RMS positive sequence dynamic model; (2) an appropriately parameterized generic library RMS positive sequence dynamic model, including a model block diagram of the inverter control system and plant control system, that corresponds to a model listed in a new table of acceptable models or a model otherwise approved by WECC; and (3) a validated EMT model, if the transmission provider performs an EMT study as part of the interconnection study process.

1660. We also adopt the NOPR proposals to: (1) define a user-defined model as any set of programming code created by equipment manufacturers or developers that captures the latest features of controllers that are mainly

software-based and represent the entities' control strategies but does not necessarily correspond to any particular generic library model, as contained in Attachment A to Appendix 1 of the *pro forma* LGIP and Attachment 2 of the *pro forma* SGIP; (2) revise Attachment A to Appendix 1 of the *pro forma* LGIP and Attachment 2 of the *pro forma* SGIP to add a table of acceptable generic library models, based on the current WECC list of approved dynamic models for renewable energy generating facilities; and (3) revise section 4.4.4 of the *pro forma* LGIP and section 1.4 of the *pro forma* SGIP to require that any proposed modification of the interconnection request be accompanied by updated models of the proposed generating facility.

1661. Based on the record before us, we affirm the Commission's preliminary finding in the NOPR that the *pro forma* LGIP and *pro forma* SGIP are unduly discriminatory or preferential because they do not require non-synchronous generating facilities to provide accurate and validated models to transmission providers during the generator interconnection process that provide a comparable degree of accuracy as the models required of a synchronous generator. The current *pro forma* LGIP and *pro forma* SGIP provisions ensure that synchronous generating facilities are required to provide accurate, validated models to transmission providers during the generator interconnection process. However, the current *pro forma* LGIP and *pro forma* SGIP provisions are insufficient to ensure that non-synchronous generating facilities submit models with a comparable level of accuracy.

1662. Additionally, we find that the lack of a requirement for non-synchronous generating facilities to provide accurate and validated models to transmission providers in the *pro forma* LGIP and *pro forma* SGIP results in unjust and unreasonable rates. Accurate and validated models are necessary to minimize study delays and to ensure that transmission providers conduct accurate interconnection studies that identify the necessary interconnection facilities and network upgrades to accommodate the interconnection request. Data issues are commonly cited as a major source of study delays, which contributes to interconnection queue backlogs.³¹⁶¹ As described above, interconnection queue backlogs create uncertainty in the timing and cost of interconnecting to the transmission system and hinders the timely development of new generation.

³¹⁵⁴ SEIA Initial Comments at 41–42 (citing Summary of the Joint Generator Interconnection Workshop, at 28 (Aug. 9–11, 2022), <https://www.esig.energy/wp-content/uploads/2022/10/Joint-Generator-Workshop-Summary-1.pdf> (Generator Interconnection Workshop Summary)).

³¹⁵⁵ Bonneville Initial Comments at 24.

³¹⁵⁶ Invenergy Initial Comments at 58.

³¹⁵⁷ APS Initial Comments at 24.

³¹⁵⁸ ClearPath Initial Comments at 10.

³¹⁵⁹ Consumers Energy Initial Comments at 9.

³¹⁶⁰ EPRI Initial Comments at 22.

³¹⁶¹ See, e.g., ISO–NE Initial Comments at 42.

Moreover, without accurate models, transmission providers cannot conduct accurate interconnection studies that identify the appropriate interconnection facilities and network upgrades, leading to the inaccurate assignment of interconnection costs and resulting in Commission-jurisdictional rates that are unjust and unreasonable.³¹⁶²

1663. Furthermore, many commenters agree that this reform will help prevent potential reliability concerns if non-synchronous generating facilities do not perform when in service as modeled during the interconnection process.³¹⁶³ For example, additional modeling requirements will significantly improve the accuracy of both interconnection and reliability studies as well as address concerns regarding non-synchronous generation disturbance events.³¹⁶⁴

1664. NYISO argues that the final rule would be inefficient and necessitate a rebuild of NYISO's study base case, take longer to ensure accurate results, and significantly slow the interconnection process.³¹⁶⁵ While we will not opine here on the NYISO-specific compliance with the final rule, we disagree that requiring accurate dynamic models of generating facilities will make the interconnection process take longer to ensure accurate results. To the contrary, we find here that a lack of accurate models is a major cause of study delays and contributes to interconnection study backlogs.

1665. The majority of commenters support the NOPR proposal.³¹⁶⁶ We affirm that, consistent with this final

rule, all interconnection customers requesting to interconnect a non-synchronous generating facility must provide the transmission provider with the required models needed for accurate interconnection studies. We find that the models required herein contain the details necessary to accurately model the performance of the non-synchronous generating facility in response to system disturbances, and we decline to adopt alternative model proposals put forth by commenters. This reform promotes a consistent approach among all generating facilities with respect to modeling, such that all interconnection customers are required to submit information sufficient to accurately model the behavior of their proposed generating facilities.

1666. We decline to adopt AES's request for a 20-day cure period for model deficiencies.³¹⁶⁷ Under the proposed provisions, if an interconnection customer fails to provide the required models above within the deadlines established in the *pro forma* LGIP and *pro forma* SGIP, its interconnection request will be incomplete and considered invalid in accordance with section 3.4.4 of the *pro forma* LGIP and section 1.3 of the *pro forma* SGIP. Pursuant to those provisions, if the interconnection customer does not cure such a deficiency within the 10-business day cure period, the interconnection request will be considered withdrawn pursuant to section 3.7 of the *pro forma* LGIP and section 1.3 of the *pro forma* SGIP. In its request, AES provides no explanation for why the 10-business day cure period is insufficient. Moreover, we believe that the existing 10-business day cure period should be consistently applied to all interconnection request deficiencies and that having an extended cure period for model deficiencies would potentially introduce delays in the interconnection process. We note that interconnection customers may submit their interconnection requests early in the customer request window, which will allow for more time to ensure their models are valid.

1667. We disagree with Pine Gate that the revisions to the *pro forma* LGIP and *pro forma* SGIP, as adopted, incorporate requirements into the *pro forma* LGIP and *pro forma* SGIP that are already being addressed by NERC through the standards development process.³¹⁶⁸ We note that NERC supports the NOPR proposal and argues that the existing interconnection process does not

provide sufficiently accurate and validated models for non-synchronous generating facilities to transmission providers.³¹⁶⁹ We find that these modeling requirements are appropriately addressed in the interconnection context, where interconnection customers must provide information to a transmission provider for use in interconnection studies, and thus adopt the revisions in the *pro forma* LGIP and *pro forma* SGIP. In addition, the *pro forma* LGIA and *pro forma* SGIA revisions apply to a wide spectrum of generating facilities, including newly interconnecting generating facilities that are currently outside the bounds of NERC's jurisdiction.³¹⁷⁰ As such, we find that this reform can holistically address the identified issues alongside the NERC standards; even if NERC is taking action, that need not prevent us from taking action here.

1668. We disagree with ENGIE that the value obtained from the models in the NOPR proposal is low because of the likelihood that the study will be outdated as project components are substituted with more advanced technology.³¹⁷¹ We recognize that the project components for non-synchronous generating facilities may change during the interconnection process. We find, however, that this does not diminish the value of a transmission provider receiving the identified information from interconnection customers requesting to interconnect a non-synchronous generating facility and receiving models that represent the best information interconnection customers have available about their proposed generating facilities because these models will ensure that the transmission provider can accurately model the impact of the proposed generating facility throughout the interconnection process. In addition, proposed section 4.4.4 of the *pro forma* LGIP and section 1.4 of the *pro forma* SGIP require that any modification of the interconnection request be accompanied by updates to the models. Pursuant to these provisions, the models are required to be updated as project components are changed. Ensuring that the model of the proposed generating

³¹⁶² NARUC Initial Comments at 42; *see also* EEI Initial Comments at 23 (explaining that this requirement will improve transmission provider's ability to identify appropriate interconnection facilities and network upgrades for non-synchronous generating facilities); MISO TOs Initial Comments at 33 (stating that the current lack of accurate modeling means that transmission providers are unable to fully assess their ability to respond to system disturbances).

³¹⁶³ APS Initial Comments at 24; CAISO Initial Comments at 39–40; Clean Energy Associations Initial Comments at 65; NERC Initial Comments at 9–10; Eversource Initial Comment at 38.

³¹⁶⁴ Eversource Initial Comment at 38.

³¹⁶⁵ NYISO Initial Comments at 53–54.

³¹⁶⁶ AEP Initial Comments at 54; APPA–LPPC Initial Comments at 33; APS Initial Comments at 24; CAISO Initial Comments at 39; Clean Energy Associations Initial Comments at 65; EEI Initial Comments at 23; NERC Initial Comments at 9–10; EPRI Initial Comments at 19; Eversource Initial Comments at 38; ISO–NE Initial Comments at 42; MISO Initial Comments at 125; MISO TOs Initial Comments at 33; NARUC Initial Comments at 42; National Grid Initial Comments at 44; North Carolina Commission and Staff Initial Comments at 27; NRECA Initial Comments at 48; NYTOs Initial Comments at 33; Ohio Commission Initial Comments at 17; OMS Initial Comments at 20; PacifiCorp Initial Comments at 45; PPL Initial Comments at 25; R Street Initial Comments at 17; SPP Initial Comments at 27; U.S. Chamber of Commerce Initial Comments at 13.

³¹⁶⁷ AES Initial Comments at 25–26.

³¹⁶⁸ Pine Gate Initial Comments at 60.

³¹⁶⁹ NERC Initial Comments at 18.

³¹⁷⁰ *But see Registration of Inverter-based Resources*, 181 FERC ¶ 61,124, at P 31, (2022) (“[W]e find it necessary to ensure that NERC register the owners and operators of those unregistered IBRs that, in the aggregate, have a material impact on Bulk-Power System reliability, to ensure those entities are subject to a relevant set of mandatory and enforceable Reliability Standard requirements.”).

³¹⁷¹ ENGIE Initial Comments at 13–14.

facility is accurate throughout the interconnection study process will allow the interconnection customer to understand the actual, potential impact on their interconnection request of changing these project components as they are considering such technological advancements.

1669. Similarly, we disagree with commenters that argue that accurate models for non-synchronous generating facilities may not be available early in the interconnection study process and may need to be updated during that process.³¹⁷² We find that the reforms we adopt herein are consistent with the principles behind other requirements in the *pro forma* LGIP and *pro forma* SGIP, namely those that set forth requirements for an interconnection request, including requirements that requests be viable and well-defined.³¹⁷³ The requirement to submit accurate models also reduces the chance that a transmission provider would need to perform additional studies, in this case if an interconnection customer submits models that are inaccurate and those inaccuracies are not discovered until late in the interconnection process. In that instance, *i.e.*, if model validation occurs at a point further into the interconnection process, inaccurate models that are used in interconnection studies could create errors in the studies, potentially leading to restudies and subsequent delays which would frustrate the efficiency gained by moving to a first-ready, first-served cluster study process. Further, we find that the definition of a validated model (*i.e.*, confirmation that the equipment behavior is consistent with the modeled behavior) is sufficiently flexible to enable interconnection customers to provide such a model with their interconnection requests.³¹⁷⁴ Moreover, the option for the interconnection customer to submit an attestation that the models accurately reflect the expected behavior of a proposed generating facility would be based in the interconnection customer's best understanding at the time of the interconnection request, providing further flexibility if the interconnection customer chooses to change the equipment or control systems of the

proposed generating facility, which is permitted as part of the interconnection process.

1670. In addition, we do not believe, as suggested by commenters,³¹⁷⁵ that there is a need to require transmission providers to make available additional information and system data in order for an interconnection customer to develop an RMS model. Although measured transmission system information is an input into the RMS model, the purpose of the model is to represent the behavior of the facility itself, and the interconnection customer should be able to use likely transmission system configurations to parameterize and validate the RMS model. To the extent that the interconnection customer believes that actual transmission data is required to tune the model block diagram, the scoping meeting provides a venue for such discussions. The provisions set forth in new *pro forma* LGIP section 3.4.6 further detail scoping meetings, which occur during the customer engagement window.

1671. We decline to adopt requirements that constrain the discretion of transmission providers to use either user-defined RMS models or generic library RMS models, as suggested by commenters.³¹⁷⁶ We find that the transmission provider is in the best position to determine the power flow modeling method that is best suited to ensuring the reliability of its system.

1672. We decline to modify the NOPR proposal to allow the transmission provider to require *either* a user-defined RMS model *or* a generic library RMS model, as suggested by Clean Energy Associations, rather than requiring the interconnection customer to submit both, as adopted in this final rule.³¹⁷⁷ We believe that requiring the interconnection customer to submit both models is of value in providing the transmission provider discretion to choose which model most accurately represents a given generating facility's behavior. Providing these models does not represent an unreasonable burden on the interconnection customer, as the process of developing and parameterizing an RMS model is significantly simpler than doing so for an EMT model.

1673. We decline to require the user-defined RMS model to be compatible with the transmission provider's software and meet the transmission provider's MOD-032-1 requirements at the time the interconnection request is submitted, as requested by MISO.³¹⁷⁸ While the user-defined RMS model will have to meet these requirements prior to the cluster study for generating facilities seeking to interconnect pursuant to the *pro forma* LGIP and optional feasibility study or system impact study for generating facilities seeking to interconnect pursuant to the *pro forma* SGIP, the scoping meeting is the appropriate time to provide and discuss this information in order to correct the model if it is incompatible with the transmission provider's software or otherwise causes the transmission system model to be unable to solve.³¹⁷⁹

1674. We decline to require NERC to improve the degree to which power flow software vendors allow accurate modeling of IBR technology, as requested by Longroad Energy.³¹⁸⁰ While we agree that improved accuracy of IBR modeling is beneficial, this rulemaking is focused on entities that execute, or request the unexecuted filing of, LGIAs and SGIAs, and placing obligations on NERC or vendors is outside the scope of this proceeding. Equipment providers can develop and submit validated generic models to the software vendors' model libraries or the WECC model validation process to be included in the WECC table of approved models, if they desire to do so.

1675. In response to commenters that argue that the Commission should provide further direction regarding model validation requirements for non-synchronous generating facilities,³¹⁸¹ we note that Attachment A to Appendix 1 of the *pro forma* LGIP and Attachment 2 of the *pro forma* SGIP, as adopted in this final rule, provide that, for a model to be "validated," the interconnection customer must provide evidence that the equipment behavior is consistent with the model behavior. In addition, Attachment A to Appendix 1 of the *pro forma* LGIP and Attachment 2 of the *pro*

³¹⁷² MISO Initial Comments at 125.

³¹⁷⁹ The scoping meeting is a meeting between representatives of the interconnection customer and transmission provider "to exchange information including any transmission data and earlier study evaluations that would be reasonably expected to affect such interconnection options," and "to analyze such information." Appendix C, *pro forma* LGIP section 1.

³¹⁸⁰ Longroad Energy Reply Comments at 20.

³¹⁸¹ EPRI Initial Comments at 14-15; Clean Energy Associations Initial Comments at 66-67; NERC Initial Comments at 18-20; Ørsted Initial Comments at 16, 18; SDG&E Reply Comments at 3; Tesla Initial Comments at 10.

³¹⁷² Alliant Energy Initial Comments at 10-11; Clean Energy Associations Initial Comments at 66; EPRI Initial Comments at 17-18; NextEra Initial Comments at 40; Ørsted Initial Comments at 17; Pine Gate Initial Comments at 61; PPL Initial Comments at 25; Public Interest Organizations Reply Comments at 13; SEIA Initial Comments at 42.

³¹⁷³ *Pro forma* LGIP section 3.4.1; *pro forma* SGIP section 1.3.

³¹⁷⁴ *Pro forma* LGIP Attachment A to Appendix 1.

³¹⁷⁵ SEIA Initial Comments at 42; Tesla Initial Comments at 11.

³¹⁷⁶ Clean Energy Associations Initial Comments at 65-66; Eversource Initial Comments at 39; ISO-NE Initial Comments at 42-43; MISO Initial Comments at 125; SEIA Initial Comments at 43; Tesla Initial Comments at 11.

³¹⁷⁷ Clean Energy Associations Initial Comments at 65-66.

forma SGIP provide that this can involve, for example, an attestation from the interconnection customer that the model accurately represents the entire generating facility, attestations from each equipment manufacturer that the user-defined model accurately represents the relevant component of the generating facility, or test data. We find that this definition of a “validated” model and examples of an attestation in the proposal are sufficient and provide flexibility to allow interconnection customers to provide such a model with their interconnection requests. Therefore, we decline to adopt alternative proposals for model validation put forth by commenters.

1676. We decline to adopt alternatives and revisions to the table of acceptable generic library models based on the current WECC list of approved dynamic models for renewable energy generating facilities, as suggested by R Street and EPRI.³¹⁸² We find that the table, as adopted, is appropriate because it represents the full spectrum of modeling data that transmission providers need to perform accurate interconnection studies for non-synchronous generating facilities. Nevertheless, we recognize that the list of models approved by WECC is subject to change and note that the table provides that “a model otherwise approved by [WECC],”³¹⁸³ and not reflected in the table, would also meet the model requirements.

1677. In response to commenters that oppose a requirement for a validated EMT model,³¹⁸⁴ we note that these concerns mischaracterize the NOPR proposal as mandating EMT models on a national basis. Rather, Attachment A to Appendix 1 of the *pro forma* LGIP and Attachment 2 of the *pro forma* SGIP, as adopted, requires that, in circumstances where the transmission provider performs an EMT study as part of its interconnection study process, the interconnection customer must provide an EMT model. We find that the transmission provider is in the best position to determine whether an EMT study is necessary to ensure system reliability because the transmission provider has the in-depth knowledge of its transmission system required to recognize where and when regular dynamic modeling is inadequate to

capture the true behavior of generating facilities.

1678. Similarly, we decline to adopt EPRI’s request to require EMT models regardless of whether the transmission provider performs an EMT study.³¹⁸⁵ Developing an EMT model may place an unreasonable administrative burden on an interconnection customer in situations where such a model is not used by the transmission provider. We also decline to adopt EPRI’s request to allow use of an industry-accepted, generic EMT model instead of a validated EMT model, as the record does not indicate that any such industry-accepted, generic models currently exist.³¹⁸⁶

1679. We decline Clean Energy Associations’ request that the Commission require submission of an EMT model one year before the scheduled commercial operation date of the non-synchronous generating facility if the transmission provider performs an EMT study as part of the interconnection study process.³¹⁸⁷ As noted above, we find that the proposal for models to be submitted with the interconnection request is consistent with the principles behind other requirements in the *pro forma* LGIP and *pro forma* SGIP and that transmission providers need these models to perform interconnection studies and ensure that prospective generating facilities do not create reliability risks to the transmission system. In response to Clean Energy Associations’ request that the Commission require the transmission provider and its consultants to protect the EMT models and other information with the highest degree of confidentiality,³¹⁸⁸ we note that the *pro forma* generator interconnection procedures and agreements include provisions for the treatment of confidential information.³¹⁸⁹

1680. In response to Invenery’s request for clarification regarding whether a generic EMT model may be provided if a validated EMT model is unavailable at the time of submission of an interconnection request,³¹⁹⁰ we note that there is currently no industry-accepted generic EMT model; therefore, a validated EMT model is required. In response to Invenery’s request for clarification regarding whether the

interconnection customer may submit this information by the time of a cluster restudy if a validated EMT model is determined to be necessary, we clarify that a validated EMT model, if required by the transmission provider, must be submitted with the interconnection request to proceed in the interconnection study process. As validation can consist of, for example an attestation from the interconnection customer that the model accurately represents the entire generating facility, based on the interconnection customer’s understanding at the time of submission, we believe an interconnection customer should be able to provide a validated EMT model at the time of the interconnection request.

1681. In response to APS’ request for clarification on the number of times an interconnection customer is allowed to provide inaccurate data and cure deficiencies before an interconnection request is deemed withdrawn,³¹⁹¹ we note that section 3.4.4 of the *pro forma* LGIP and section 1.3 of the *pro forma* SGIP provide the timeline for when a transmission provider must notify an interconnection customer that its interconnection request is deficient, and at that point, the interconnection customer has 10 business days to provide the additional requested information. We clarify that an interconnection customer has until the end of the 10 business-day period to cure deficiencies in its interconnection request. In the case of the *pro forma* LGIP, the interconnection customer may submit this information early in the cluster request window to ensure that there is sufficient time to address any issues with the interconnection request and the required models.

1682. In response to ClearPath’s question regarding whether a change in equipment that necessitates submitting updated models is considered a material modification,³¹⁹² we highlight that section 4.4 of the *pro forma* LGIP and section 1.4 of the *pro forma* SGIP set forth procedures for modifications to an interconnection request, including the evaluation of technical changes to a request. Further, we note that section 4.6 of the *pro forma* LGIP contains the transmission provider’s technological change procedure, which was designed to allow transmission providers to evaluate whether equipment changes to an interconnection request should trigger the material modification provisions. A change in equipment may also qualify under the transmission

³¹⁸² EPRI Initial Comments at 20; R Street Initial Comments at 17.

³¹⁸³ *Pro forma* LGIP, app. 1, attach. A; *Pro forma* SGIP, attach. 2.

³¹⁸⁴ AES Initial Comments at 26; Bonneville Initial Comments at 24; Invenery Initial Comments at 57–58; Longroad Energy Reply Comments at 21; SEIA Initial Comments at 41–42.

³¹⁸⁵ EPRI Initial Comments at 19.

³¹⁸⁶ *Id.* at 15.

³¹⁸⁷ Clean Energy Associations Initial Comments at 68–69.

³¹⁸⁸ *Id.* at 70.

³¹⁸⁹ See *pro forma* LGIP section 13.1; *pro forma* SGIP section 4.5; *pro forma* LGIA art. 22; *pro forma* SGIA art. 9.

³¹⁹⁰ Invenery Initial Comments at 58.

³¹⁹¹ APS Initial Comments at 24.

³¹⁹² ClearPath Initial Comments at 10.

provider's definition of permissible technological advancements in section 1 of the *pro forma* LGIP. This definition includes advancements that the interconnection process can accommodate without triggering the material modification provision of the *pro forma* LGIP.

1683. In response to Consumers Energy's recommendation that there should be consistency between NERC Reliability Standards and data collection efforts and the Commission's rulemaking,³¹⁹³ we are not persuaded that there is a conflict or duplication between this final rule and NERC's Reliability Standards and interconnection data collection efforts. NERC Reliability Standards apply only to entities that are registered with NERC. Many smaller non-synchronous generating facilities are currently excluded from NERC registration but interconnect under the *pro forma* SGIP and *pro forma* LGIP and execute, or request the unexecuted filing of, the *pro forma* SGIA or *pro forma* LGIA.³¹⁹⁴ The revisions to the *pro forma* interconnection procedures and *pro forma* interconnection agreements require all new interconnection customers that interconnect under the *pro forma* interconnection procedures and *pro forma* interconnection agreements to adhere to the new modeling requirements, regardless of whether the new interconnection customers must abide by the NERC Reliability Standards. We also note that NERC supports the proposed reforms.³¹⁹⁵

b. Ride Through Requirements

i. Need for Reform and NOPR Proposal

1684. In the NOPR, the Commission preliminarily found that the *pro forma* LGIA and *pro forma* SGIA ride through provisions could result in undue discrimination and preferential treatment.³¹⁹⁶ The Commission stated that, although synchronous and non-synchronous generating facilities are able to "ride through" system events and remain online and continue to provide real and reactive power following a disturbance, the existing *pro forma* LGIA and *pro forma* SGIA impose differing ride through requirements because they fail to account for a non-synchronous generating facility's ability to engage in momentary cessation.³¹⁹⁷ The Commission expressed concern that, given advances in inverter

technology, the lack of performance requirements regarding the use of momentary cessation by non-synchronous generating facilities may not be supportable on either a technical or cost basis.³¹⁹⁸

1685. The Commission proposed to require newly interconnecting non-synchronous generating facilities to continue current injection inside the "no trip zone" of the frequency and voltage ride through curves of NERC Reliability Standard PRC-024-3 or its successor standards.³¹⁹⁹ The Commission explained that the *pro forma* LGIA defined the term "ride through" as the ability of the large generating facility to stay connected to and synchronized with the transmission system during system disturbances within a range of under-frequency and over-frequency conditions. The Commission proposed to expand this definition to include the ability of the large generating facility to stay connected to and synchronized with the transmission system during system disturbances within under-voltage and over-voltage conditions.

1686. In addition, the Commission proposed to require any newly interconnecting non-synchronous generating facility to have the ability, during abnormal frequency conditions and voltage conditions within the "no trip zone" defined by NERC Reliability Standard PRC-024-3 or its successor standards, to maintain power production at pre-disturbance levels unless providing primary frequency response or fast frequency response, and to have the ability to provide dynamic reactive power to maintain system voltage in accordance with the generating facility's voltage schedule.³²⁰⁰ The Commission sought comment on whether adherence to these proposed requirements would be readily achievable through changes to control settings and whether such changes to control settings could be made at a relatively minor cost.³²⁰¹

ii. Comments

(a) Comments in Support

1687. Many commenters generally support the goal of the NOPR

³¹⁹⁸ *Id.* P 325.

³¹⁹⁹ *Id.* P 336. The "no trip zone" is defined as a set of voltage and frequency no trip boundaries within which applicable protection and controls may not be set to cause the generating facility to trip or cease current injection. See PRC-024-3—Frequency and Voltage Protection Settings for Generating Resources, <https://www.nerc.com/pa/Stand/Reliability%20Standards/PRC-024-3.pdf>.

³²⁰⁰ NOPR, 179 FERC ¶ 61,194 at P 337.

³²⁰¹ *Id.* P 338.

proposal.³²⁰² CAISO asserts that the proposed reforms are essential for transmission providers to maintain reliability as non-synchronous generating facilities proliferate, and it urges the Commission to impose the proposed requirements on all interconnection customers that have not yet executed LGIAs as well as all prospective interconnection customers.³²⁰³ CAISO argues that interconnection customers that have already procured certain inverters that cannot meet the requirements can request non-conforming LGIAs, or request that their LGIAs be filed unexecuted, but it notes that it recently implemented similar requirements, and interconnection customers have been able to procure the inverters and technology necessary to meet the requirements.

(b) Comments in Opposition

1688. Pine Gate asserts that the Commission should not incorporate requirements into the *pro forma* LGIP and *pro forma* SGIP that are already being addressed by NERC through the standards development process, which will add new requirements related to the vast majority of the modeling and performance issues identified in the NOPR.³²⁰⁴ In addition, Pine Gate notes that the *pro forma* LGIA and *pro forma* SGIA already require interconnection customers to remain compliant with the applicable reliability standards.³²⁰⁵

(c) Comments on Specific Proposal

(1) IEEE Standards 2800 and 1547

1689. NERC and MISO support modifying the *pro forma* LGIP to incorporate elements of NERC Reliability Standards, NERC guidelines, and IEEE standards.³²⁰⁶ Specifically, MISO supports adopting IEEE Standard 2800-2022 by reference in the *pro forma* LGIA.³²⁰⁷ MISO asserts that

³²⁰² AEP Initial Comments at 54; AES Initial Comments at 27; Ameren Initial Comments at 34; APPA-LPPC Initial Comments at 33; CAISO Initial Comments at 39-40; Consumers Energy Initial Comments at 9; NERC Initial Comments at 4, 23; Eversource Initial Comments at 38; Illinois Commission Initial Comments at 16; MISO TOs Initial Comments at 32-33; NARUC Initial Comments at 42; National Grid Initial Comments at 43-44; North Carolina Commission and Staff Initial Comments at 26-27; NRECA Initial Comments at 48; NYISO Initial Comments at 54; Ohio Commission Consumer Advocate Initial Comments at 17; PacifiCorp Initial Comments at 45; Pine Gate Initial Comments at 59; SPP Initial Comments at 28; U.S. Chamber of Commerce Initial Comments at 13.

³²⁰³ CAISO Initial Comments at 39-40.

³²⁰⁴ Pine Gate Initial Comments at 60.

³²⁰⁵ *Id.* (citing *pro forma* LGIA art. 9.1).

³²⁰⁶ NERC Initial Comments at 9; MISO Reply Comments at 26.

³²⁰⁷ MISO Reply Comments at 25.

³¹⁹³ Consumers Energy Initial Comments at 9.

³¹⁹⁴ NERC Initial Comments at 13-14.

³¹⁹⁵ *Id.* at 8-9, 18-20.

³¹⁹⁶ NOPR, 179 FERC ¶ 61,194 at P 320.

³¹⁹⁷ *Id.* PP 320-321.

implementing IEEE Standard 2800–2022 will ensure resource capabilities protect against the types of events described in several recent NERC disturbance reports. NERC notes that the IEEE standards are inherently not mandatory unless a governing authority with jurisdiction adopts and enforces them and include many recommended practices that could be deemed informational.³²⁰⁸ Accordingly, NERC asserts that IEEE Standard 2800–2022 operates similar to NERC reliability guidelines, although IEEE Standard 2800–2022 is only available upon purchase.

1690. NERC recommends that the Commission explicitly integrate the requirements and recommendations from IEEE Standard 2800–2022 into the *pro forma* interconnection agreements.³²⁰⁹ Specifically, NERC contends that the Commission should prioritize the disturbance ride through, active power–frequency control, reactive power–voltage control, data sharing, and modeling provisions of IEEE Standard 2800–2022. However, NERC states that some transmission system conditions may require inverter control modes, settings, or protections that will not conform to IEEE Standard 2800–2022 region-wide expectations. NERC also argues that transmission providers should be permitted to establish additional performance requirements for specific locations and instances beyond region-wide requirements established under *pro forma* provisions, subject to transparency and public notice.

1691. Some commenters request that the Commission amend its proposal to reference IEEE Standard 2800 or successor standards for large generating facilities and IEEE Standard 1547 for small generating facilities.³²¹⁰ EPRI asserts that these standards have been developed through a rigorous process and provide for IBR performance that supports system reliability while providing sufficient flexibility for RTOs/ISOs and interconnection customers.³²¹¹ EPRI also notes that inverter manufacturers have publicly stated that state-of-the-art equipment already has the majority of the capabilities required by IEEE Standard 2800.

1692. EPRI argues that the Commission should consider narrowly specifying ride through requirements by reference to IEEE Standards 2800 and

1547; aligning all applicable definitions proposed in the NOPR with those standards; and evaluating the alignment of additional definitions or performance specifications with potential future revisions of those standards.³²¹² EPRI asserts that failing to do so could create undue technical barriers to IBRs, and that paraphrasing of IEEE standards, rather than directly referencing the standards' requirements, could lead to an inconsistent implementation of the final rule in different regions with insufficient reliability benefits.³²¹³

1693. EPRI asserts that, if the Commission specifies its own ride through performance requirements, an alternative but less preferred approach would be to use the precise language and definitions as published in IEEE Standards 2800 and 1547.³²¹⁴

1694. EPRI argues that the NOPR proposal does not seem entirely aligned with the NERC IBR guidelines and is not as clear as the applicable industry standards like IEEE Standard 2800–2022.³²¹⁵ EPRI also asserts that the Commission should consider what it characterizes as significant improvements in IEEE Standard 2800 over the NERC reliability guidelines. EPRI contends that the NERC IBR reliability guidelines cited in the NOPR did not fully consider all technical and stakeholder concerns considered by IEEE Standard 2800 and are therefore in contravention of the IEEE Standard 2800–2022 consensus requirements.³²¹⁶

1695. SEIA states that IBRs are currently capable of riding through disturbances and that many developers have implemented controls to ensure they do so following the release of the consensus-based IEEE standards.³²¹⁷ SEIA argues that incorporating IEEE Standard 2800 into the *pro forma* LGIA would bring some certainty in generating facility design because the reliability requirements for each generating facility would be known at the time of the interconnection request.³²¹⁸

(2) Feasibility of NOPR Proposal

1696. Some commenters argue that the proposed requirement in the NOPR “to maintain power production at pre-disturbance levels unless providing primary frequency response or fast frequency response” is not feasible.³²¹⁹

³²¹² *Id.*

³²¹³ *Id.* at 5–6.

³²¹⁴ *Id.* at 6.

³²¹⁵ *Id.* at 9.

³²¹⁶ *Id.* at 3.

³²¹⁷ SEIA Initial Comments at 43.

³²¹⁸ *Id.* at 44.

³²¹⁹ CAISO Initial Comments at 40; Clean Energy Associations Initial Comments at 71–72; NERC at 4;

Invenergy asserts that, in order to increase reactive power output to maintain system voltage, a generator would necessarily have to reduce real power output: therefore, Invenergy requests that the NOPR proposal be revised to clarify this potential inconsistency.³²²⁰ Clean Energy Associations and Public Interest Organizations contend that a requirement to maintain active power injection at pre-disturbance levels would lead to an undesirable response from generating facilities during a grid disturbance that could lead to voltage collapse, and the more helpful response would be to shift some power output to prioritize reactive power.³²²¹

1697. Southern suggests adding a sentence to article 9.7.3 in the *pro forma* LGIA to address circumstances under which the generating facility is unable to maintain active power while delivering reactive power.³²²² Clean Energy Associations suggest that the Commission replace the requirement to maintain active power production with language from NERC Reliability Standard PRC–024–3, which requires current injection and not active power injection to continue at pre-disturbance levels.³²²³ Alternatively, Clean Energy Associations and Invenergy suggest the proposed language could be made more workable by only requiring a return to the pre-disturbance level of power production following voltage recovery, subject to the energy availability of the resource, which Clean Energy Associations explains would allow a generator to correctly shift from active power to reactive power during the voltage disturbance.³²²⁴

1698. CAISO requests that the Commission not require that inverters be able to provide real power during a transitory disturbance.³²²⁵ CAISO states that, unlike synchronous generating facilities, IBRs are current limited and generally operate at their maximum output. CAISO argues that maintaining

EPRI Initial Comments at 10; Invenergy Initial Comments at 58; Ørsted Initial Comments at 19–20; Public Interest Organizations Reply Comments at 14; Southern Initial Comments at 34.

³²²⁰ Invenergy Initial Comments at 58.

³²²¹ Clean Energy Associations Initial Comments at 71–72; Public Interest Organizations Reply Comments at 14.

³²²² Southern Initial Comments at 34 (suggesting the addition of the following sentence: “If the plant cannot maintain active power while delivering reactive power due to its current or apparent power limitation, then the preference should be given to either active or reactive power as specified by the Transmission Provider.”).

³²²³ Clean Energy Associations Initial Comments at 76.

³²²⁴ *Id.* at 76–77; Invenergy Initial Comments at 58.

³²²⁵ CAISO Initial Comments at 40.

³²⁰⁸ NERC Initial Comments at 3.

³²⁰⁹ *Id.* at 6.

³²¹⁰ Clean Energy Associations Initial Comments at 73; EPRI Initial Comments at 5; SEIA Initial Comments at 43 (citing Generator Interconnection Workshop Summary at 20).

³²¹¹ EPRI Initial Comments at 5.

real power output at pre-disturbance levels would likely inhibit a non-synchronous generating facility's ability to provide reactive power during a disturbance, and to help ensure reliability CAISO recommends removing the real power requirements and requiring non-synchronous generating facilities to provide reactive power at pre-disturbance levels. EPRI agrees that maintaining active power at the pre-disturbance levels during and after the abnormal voltage period may not be practical, given that voltage disturbances tend to be limited to a region relatively close to the fault location, and is not aligned with IEEE Standard 2800–2022 or other international requirements.³²²⁶ EPRI and NERC recommend that IBR plant performance requirements should address active and/or reactive current during an abnormal voltage condition and requirements for the restoration of active power output in the post-fault period.³²²⁷

1699. EPRI argues that the implementation of frequency and voltage protection relay settings should not be exactly aligned with the NERC Reliability Standard PRC–024 curves but rather be based on the actual limits of equipment capability, with the objective to avoid potential damages.³²²⁸

1700. Ørsted argues that it is not possible to maintain real power production with depressed voltage that is still within the no trip zone of NERC Reliability Standard PRC–024–3, and explains that prioritizing reactive current during fault ride through mode (even within the no trip zone) is instrumental to maintain reliability.³²²⁹ Ørsted recommends replacing the reference to good utility practice in proposed article 9.7.3 of the *pro forma* LGIA and instead rely on Order No. 842 and its definition of “Bulk-Power System—Primary Frequency Response.”³²³⁰

1701. NERC notes that conventional grid-following IBRs are current-limited devices, and their active power output is voltage-dependent, making maintaining 100% of pre-disturbance active power while providing reactive power to support the bulk-power system during the fault period not always

feasible.³²³¹ NERC recommends referring to “controls that maintain pre-disturbance active current (Ip)” in addition to the provision of reactive current (Iq) (*i.e.*, reactive power support) rather than referring to “power.”³²³²

(3) Applicability to All Types of Generating Facilities

1702. Invenenergy asserts that the NOPR proposal should go beyond the *pro forma* LGIA's current requirements and apply evenly to all generating facilities, not just non-synchronous generating facilities.³²³³ Similarly, Clean Energy Associations assert that the Commission currently only requires that relay settings not trip a generating facility during a voltage or frequency excursion and that there is no actual performance standard to ride through a disturbance for synchronous generating facilities.³²³⁴ Clean Energy Associations assert that, to prevent undue discrimination, the Commission should either proceed with a similar effort to require ride through performance from synchronous generating facilities; or allow ride through performance exceptions for non-synchronous generating facility trips caused by auxiliary equipment performance, which are a primary cause of ride through failure for both synchronous and non-synchronous generating facilities.

1703. EPRI states that article 9.7.3 of the *pro forma* LGIA could benefit from additional modifications that differentiate between the ride through requirements for synchronous and non-synchronous large generating facilities because the two technologies have inherently different technical capabilities and operating principles.³²³⁵

1704. Ørsted urges the Commission to take note of the differences between technologies regarding their ability to ride through transmission system faults.³²³⁶ For example, Ørsted states that it uses a plant controller for wind turbines that is frozen in fault ride through mode and that controls aiding voltage recovery are performed by individual turbines until voltage profile is back within a normal operating band of 90–110% of rated voltage.

Ørsted concludes that not all non-synchronous generating facilities are subject to the types of operating and

power production concerns highlighted by the Commission in the NOPR.

(4) Proposed Revisions to the *Pro Forma* LGIA

1705. Ørsted asserts that interconnection customers can only “ensure” ride through capability of the generating and interconnection facilities per the definition in article 1 in the *pro forma* LGIA. Ørsted contends that the Commission's use of the term “transmission system” in article 9.7.3 of the *pro forma* LGIA is unclear in this context, and thus Ørsted alleges that it will be difficult to demonstrate compliance. Accordingly, Ørsted urges the Commission to use the term “generation and interconnection facilities” instead of “transmission system” in article 9.7.3 of the *pro forma* LGIA.³²³⁷

1706. Ørsted states that, in case of severe voltage dip, IBRs may freeze in phase locked loop, essentially holding the calculated angle of the external voltage at a certain value.³²³⁸ Ørsted argues that this makes IBR units not strictly synchronized with the transmission system during this period.³²³⁹ Accordingly, Ørsted asks the Commission to remove the phrase “stay synchronized” from article 9.7.3 of the *pro forma* LGIA.

(d) Requests for Clarification and Miscellaneous

1707. NV Energy questions the ramifications of non-synchronous generating facilities failing to maintain a composite power delivery at continuous rated power output at the high side of the generator substation at a power factor within the range of 0.95 leading to 0.95 lagging.³²⁴⁰ NV Energy suggests in this circumstance the non-synchronous generating facilities make a payment for failing to maintain the tariff-required composite power delivery. NV Energy notes that there is a pending reactive power rulemaking and inquires whether the industry should assume that payments for reactive power will be addressed in that rulemaking.

1708. Eversource requests that the Commission clarify that transmission providers may include additional performance requirements in the LGIA appendices for non-synchronous generating facilities that are necessary to

³²²⁶ EPRI Initial Comments at 10.

³²²⁷ *Id.* at 9–10; NERC Reply Comments at 4.

³²²⁸ EPRI Initial Comments at 12.

³²²⁹ Ørsted Initial Comments at 19–20.

³²³⁰ *Id.* at 20 (referring to *Essential Reliability Servs. & the Evolving Bulk-Power Sys. Primary Frequency Response*, Order No. 842, 83 FR 9639 (Mar. 6, 2018), 162 FERC ¶ 61,128, *order on clarification and reh'g*, 164 FERC ¶ 61,135 (2018)).

³²³¹ NERC Reply Comments at 4.

³²³² *Id.*

³²³³ Invenenergy Initial Comments at 58.

³²³⁴ Clean Energy Associations Initial Comments at 77.

³²³⁵ EPRI Initial Comments at 11.

³²³⁶ Ørsted Initial Comments at 16.

³²³⁷ *Id.* at 18–19.

³²³⁸ A “phase locked loop” is a circuit that synchronizes an output signal with a reference or input signal in frequency as well as phase. Roland E. Best, *Phase-Locked Loops: Design, Simulation and Applications*, at 1 (6th ed. McGraw-Hill 2007).

³²³⁹ Ørsted Initial Comments at 19.

³²⁴⁰ NV Energy Initial Comments at 8.

ensure reliable interconnection in a given area, such as harmonics or radio frequency interference.³²⁴¹

1709. Invenenergy asserts that the Commission should not rely entirely on ride through and other burdens on interconnection customers to address larger transmission system issues that should be addressed through regional transmission planning processes.³²⁴²

1710. EPRI states that addressing how to apply grandfathering to existing facilities is an important consideration that should be addressed through Commission/NERC requirements. EPRI suggests that the Commission could add a procedure and criteria for a transmission provider to waive the grandfathering rule and require retrofits of existing facilities at the time of plant changes, or upgrades to meet the specified performance and modelling requirements, or to meet specific capability and performance standards such as IEEE Standard 2800–2022.³²⁴³

iii. Commission Determination

1711. We adopt, with modifications, the NOPR proposal to revise article 9.7.3 of the *pro forma* LGIA and article 1.5.7 of the *pro forma* SGIA to establish ride through requirements during abnormal frequency conditions and voltage conditions within the “no trip zone” defined by NERC Reliability Standard PRC–024–3 or successor mandatory ride through reliability standards, as set forth in the modified *pro forma* LGIA language discussed below. We modify the proposed requirements to acknowledge the physical limitations of newly interconnecting non-synchronous generating facilities. In the NOPR, the Commission stated that compliance with the NOPR proposal would be largely a control settings issue and may not be costly. We are persuaded by comments that contend that compliance with the NOPR proposal would be infeasible for certain types of inverters and non-synchronous generating facilities, and thus make modifications to address these concerns.

1712. Based on the record, we affirm the Commission’s preliminary finding in the NOPR that the *pro forma* LGIA and *pro forma* SGIA fail to account for a non-synchronous generating facility’s ability to engage in momentary cessation. We note that the physical characteristics of synchronous generating facilities result in such facilities continuing to inject electric current during transmission system disturbances, consistent with the

existing requirements to remain “connected to and synchronized with the [t]ransmission [s]ystem” as required by the *pro forma* LGIA and *pro forma* SGIA. As a result of these requirements, synchronous generating facilities continue to inject current during such disturbances, such that services provided supporting transmission system reliability are not disrupted during such events. However, the existing *pro forma* LGIA and *pro forma* SGIA do not currently require non-synchronous generating facilities to be capable of continuing to inject current in a manner comparable to synchronous generating facilities during system disturbances. As a result, non-synchronous generating facilities often cease injecting current during transmission system disturbances through “momentary cessation.” We agree with commenters that such behavior by non-synchronous generating facilities can pose significant risk to the reliability of the bulk-power system, as documented in several reports and NERC-issued alerts.³²⁴⁴

1713. Moreover, without requirements for non-synchronous generating facilities to remain connected to and synchronized with the transmission system, and not to engage in momentary cessation, interconnection studies may not be able to accurately model expected behavior and identify the appropriate interconnection facilities and network upgrades to accommodate the interconnection request, resulting in an inaccurate assignment of interconnection costs. As a result, we find that the lack of comparable requirements for non-synchronous generating facilities to have the capability to remain “connected to and synchronized with the [t]ransmission [s]ystem” in the *pro forma* LGIA and *pro forma* SGIA results in rates that are unjust, unreasonable, and unduly discriminatory or preferential.

1714. While a number of commenters object to the specific provisions proposed in the NOPR to resolve this issue, addressed further below, no commenter disagrees that there is a lack of requirements in the *pro forma* LGIA and *pro forma* SGIA regarding the use of momentary cessation by non-

synchronous generating facilities. Moreover, no commenter disputes the technical ability of non-synchronous generating facilities to continue to inject current during transmission system disturbances.

1715. Specifically, we require that during abnormal frequency conditions and voltage conditions within the “no trip zone” defined by NERC Reliability Standard PRC–024–3 or successor mandatory ride through reliability standards, the non-synchronous generating facility must ensure that, within any physical limitations of the generating facility, its control and protection settings are configured or set to: (1) continue active power production during disturbance and post disturbance periods at pre-disturbance levels unless providing primary frequency response or fast frequency response;³²⁴⁵ (2) minimize reductions in active power and remain within dynamic voltage and current limits, if reactive power priority mode is enabled, unless providing primary frequency response or fast frequency response; (3) not artificially limit dynamic reactive power capability during disturbances; and (4) return to pre-disturbance active power levels without artificial ramp rate limits if active power is reduced, unless providing primary frequency response or fast frequency response.

1716. In comparison to the NOPR proposal, this language, as adopted, provides non-synchronous generating facilities, within any physical limitations of the generating facility, the ability to reduce active power production in order to prioritize reactive power output in support of transmission system voltage.³²⁴⁶ This language also recognizes that such facilities may not be able to ride through disturbances with the same performance as synchronous generating facilities without costly equipment modification. However, this language requires non-synchronous generating facilities, within any physical limitations of the generating facility, to configure or set their facilities to ride through disturbances and continue to support

³²⁴⁵ Fast frequency response is defined as power injected to (or absorbed from) the grid in response to changes in measured or observed frequency during the arresting phase of a frequency excursion event to improve the frequency nadir or initial rate-of-change of frequency. See Fast Frequency Response Concepts and Bulk Power System Reliability Needs, https://www.nerc.com/comm/PC/InverterBased%20Resource%20Performance%20Task%20Force%20IRPT/Fast_Frequency_Response_Concepts_and_BPS_Reliability_Needs_White_Paper.pdf at 7.

³²⁴⁶ “Active power” as used here and “real power” as used in the NOPR proposal refer to the same concept: power than can be used by load in order to perform work.

³²⁴¹ Eversource Initial Comments at 38–39.

³²⁴² Invenenergy Initial Comments at 59.

³²⁴³ EPRI Initial Comments at 21–22.

³²⁴⁴ NERC Initial Comments at 9, 11 (citing NOPR, 179 FERC ¶ 61,194 at P 313 n.433 (citing *San Fernando Disturbance*, at vi (Nov. 2020), https://www.nerc.com/pa/rrm/ea/Documents/San_Fernando_Disturbance_Report.pdf; NERC and CAISO, *Multiple Solar PV Disturbances in CAISO* (Apr. 2022), https://www.nerc.com/pa/rrm/ea/Documents/NERC_2021_California_Solar_PV_Disturbances_Report.pdf; NERC, *Odessa Disturbance* (Sept. 2021) https://www.nerc.com/pa/rrm/ea/Documents/Odessa_Disturbance_Report.pdf)).

system reliability. This language is consistent with suggestions by a number of commenters that the final rule recognize that non-synchronous generating facilities cannot provide both real and reactive power at pre-disturbance levels during a disturbance,³²⁴⁷ allow for the prioritization of reactive power,³²⁴⁸ and address restoration of active power output in the post-fault period.³²⁴⁹

1717. The adopted language requires non-synchronous generating facilities, within any physical limitations of the generating facility, to configure or set their facilities to be able to ride through disturbances and continuing to support system reliability. Specifically, while grid-forming inverters are available, they are not widely commercially deployed due to lack of experience, cost, or other factors.³²⁵⁰ Given the existing technical capabilities of non-synchronous generating facilities, we agree with commenters that the NOPR proposal requiring active power to be maintained at pre-disturbance levels during a system disturbance in all instances may not be feasible, or preferable from a reliability perspective. For example, we agree there may be instances where the injection of reactive power should be prioritized to maintain reliability during a system disturbance, which may require non-synchronous generating facilities to temporarily reduce their injection of active power.³²⁵¹ As a result, we adopt a modified NOPR proposal to accommodate existing technical capabilities and physical limitations of non-synchronous generating facilities, by providing for reductions in active power to prioritize reactive power while prohibiting non-synchronous generating facilities from configuring or setting their control and protection settings to effectively

artificially limit such resources below their actual capability.

1718. We also adopt the NOPR proposal to revise article 9.7.3 of the *pro forma* LGIA to include in the definition of “ride through” the ability of the large generating facility to stay connected to and synchronized with the transmission system during system disturbances within under-voltage and over-voltage conditions. This revision ensures that large generating facilities are capable of remaining connected to and synchronized with the transmission system, consistent with the other ride through requirements adopted here and similar requirements in the *pro forma* SGIA.

1719. Some commenters request that the Commission either incorporate IEEE Standard 2800–2022 by reference, or explicitly incorporate this standard’s performance requirements into the *pro forma* LGIA. Although we acknowledge the value of IEEE 2800–2022, we decline to incorporate it by reference. IEEE 2800–2022 was developed for a different purpose; it is a voluntary guideline that uses discretionary terms (e.g., “may,” “should,” “can,” or “upon agreement”). It is unclear whether IEEE 2800–2022 would adequately address the problem identified by the Commission because the Commission would have limited authority to enforce these discretionary provisions.

1720. Invenergy and Clean Energy Associations assert that the Commission should impose similar ride through requirements on synchronous generating facilities. Alternatively, Clean Energy Associations assert that, to prevent undue discrimination, the Commission should allow ride through performance exceptions for non-synchronous generating facility trips caused by auxiliary equipment performance, which are a primary cause of ride through failure for both synchronous and non-synchronous generating facilities. We do not believe that imposing similar ride through requirements on synchronous generating facilities is necessary because the physical characteristics of synchronous generating facilities result in such facilities continuing to inject electric current during transmission system disturbances, *i.e.*, do not allow for momentary cessation.

1721. We also decline to grant Clean Energy Associations’ alternative request because we find that a ride through exception for non-synchronous generating facility trips caused by auxiliary equipment performance is not needed. As NERC has noted, protection on auxiliary equipment for non-synchronous resources, other than the

generator-connected unit auxiliary transformer, is already exempted from the requirements of NERC Reliability Standard PRC–024–3 specifically because protection for such auxiliary equipment does not cause a resource to trip or cease injecting current.³²⁵² We do not believe that auxiliary equipment performance is considered a physical limitation of a non-synchronous generating facility such that control and protection settings can be configured or set to reduce active power production during disturbances, and therefore no exception is needed.

1722. Pine Gate asserts that the Commission should not adopt requirements to the *pro forma* LGIP and *pro forma* SGIP that are already being addressed by NERC through the standards development process. We disagree because adding such provisions to the *pro forma* LGIA and *pro forma* SGIA will require all newly interconnecting generating facilities to abide by such provisions regardless of whether such newly interconnecting generating facilities are outside the bounds of NERC’s jurisdiction. As such, we find that this modified reform can holistically address the identified issues alongside the NERC standards.

1723. NV Energy raises questions about the ramifications of non-synchronous generating facilities failing to maintain reactive power and whether the Commission is proposing any changes to reactive power compensation. We clarify that the Commission is not proposing changes to reactive power compensation in this proceeding.

1724. Invenergy argues that the Commission should not rely entirely on ride through requirements and other burdens on interconnection customers to address larger transmission system issues that should be addressed through regional transmission planning processes. The need to establish interconnection requirements for generating facilities to “remain connected to and synchronized with the [t]ransmission [s]ystem” during system disturbances is properly addressed in this proceeding that deals with reforming the interconnection processes for newly interconnecting generating facilities. Regarding Invenergy’s arguments that larger transmission system issues need to be addressed in the regional transmission planning processes, we note that while reforms to regional transmission planning are

³²⁴⁷ CAISO Initial Comments at 40; Clean Energy Associations Initial Comments at 71–72; NERC at 4; EPRI Initial Comments at 10; Invenergy Initial Comments at 58; Ørsted Initial Comments at 19–20; Public Interest Organizations Reply Comments at 14; Southern Initial Comments at 34.

³²⁴⁸ Clean Energy Associations Initial Comments at 71–72; Public Interest Organizations Reply Comments at 14; Ørsted Initial Comments at 19–20.

³²⁴⁹ EPRI Initial Comments at 9–10; NERC Reply Comments at 4; Clean Energy Associations Initial Comments at 76–77; Invenergy Initial Comments at 58.

³²⁵⁰ A grid-forming inverter is an inverter that is capable of synthesizing voltage and frequency without an external reference. *See, e.g.*, Abraham Ellis, Grid Forming Inverters: Requirements and Practical Applications, at 4 (May 1, 2019) <https://www.osti.gov/servlets/purl/1639991>.

³²⁵¹ NERC Initial Comments at 23; CAISO Initial Comments at 40.

³²⁵² Petition of the North American Reliability Corporation for Approval of Proposed Reliability Standard PRC–024–3, Docket No. RD20–7, at 12 (filed Mar. 20, 2020).

outside the scope of this proceeding, the Commission is considering addressing regional transmission planning and cost allocation in another pending proceeding.³²⁵³

1725. EPRI argues that the grandfathering of existing non-synchronous generating facilities is an important consideration that should be addressed through Commission and NERC requirements and suggests that the Commission could add a procedure and criteria for a transmission provider to waive the grandfathering rule and require retrofits of existing non-synchronous generating facilities at the time of plant changes or require upgrades to meet the specified performance and modeling requirements. We decline to add the requested procedure. The final rule changes to the *pro forma* LGIA and *pro forma* SGIA adopted herein apply prospectively to interconnection customers that execute, or request the unexecuted filing of, an LGIA after the Commission-approved effective date of the transmission provider's filing in compliance with this final rule. Both the NOPR proposal and the adopted language were intended to be achieved through changes to control settings at minimal cost for current inverter technology; it did not contemplate imposing potentially significant retrofit or equipment costs on existing non-synchronous generating facilities.³²⁵⁴

1726. Ørsted requests clarification on how the NOPR proposal will affect a plant controller for wind turbines that is frozen in fault ride through mode and control actions aiding voltage recovery are performed by individual turbines until the voltage profile returns to the normal operating band of 90–110% of rated voltage. We note that the reforms, as adopted, apply to a non-synchronous generating facility as a whole, rather than to any individual component within the facility. As long as the non-synchronous generating facility as a whole meets the ride through requirements, it does not matter which part of the facility is controlling the generating facility's output.

1727. Ørsted also notes that non-synchronous generating facilities may freeze in phase locked loop during disturbances, making them not strictly synchronized with the transmission system. Ørsted asks the Commission to remove the phrase “stay synchronized” from article 9.7.3 of the *pro forma* LGIA. We decline to do so because the NOPR did not propose to revise this phrase

and this final rule establishes the specific ride through requirements for newly interconnecting non-synchronous generating facilities.

1728. Ørsted recommends that instead of references in this clause to “good utility practice,” the Commission should instead rely on Order No. 842 and its definition of “Bulk-Power System—Primary Frequency Response.” This comment refers to language not subject to the Commission's proposed revisions and is therefore outside the scope of this rulemaking proceeding. We also note that “Bulk-Power System—Primary Frequency Response” refers to the title of Order No. 842, and not any definition within.

c. Applicability of Ride Through Requirements

i. Need for Reform and NOPR Proposal

1729. In the NOPR, the Commission noted that generating facilities interconnecting under the *pro forma* LGIA that are subject to reliability standards are required to ride through frequency and voltage disturbance events, while generating facilities that are not already subject to reliability standards are not, despite the fact that all generating facilities newly interconnecting under the *pro forma* LGIA are technically capable of riding through disturbances.³²⁵⁵ The Commission explained that there is an existing gap in the applicability of ride through requirements for large generating facilities with a capacity above 20 MW and with a gross plant/facility aggregate nameplate rating of 75 MVA or less.³²⁵⁶ The Commission preliminarily found that the *pro forma* LGIA requirements could result in unduly discriminatory or preferential treatment due to this gap in the applicability of ride through performance requirements to similarly situated generating facilities.

1730. The Commission proposed to revise the *pro forma* LGIA to require that all newly interconnecting large generating facilities provide ride through capability consistent with any standards and guidelines that are applied to other generating facilities in the balancing authority area on a comparable basis.³²⁵⁷ The Commission noted that the proposed reform is consistent with existing language in article 1.5.7 of the *pro forma* SGIA that requires newly interconnecting small generating facilities to ride through

abnormal frequency and voltage events and not disconnect during such events.

1731. In addition to the substantive changes, the Commission proposed to replace the term “applicable reliability council” with “electric reliability organization,” and replace the term “control area” with “balancing authority area” throughout the *pro forma* LGIP and *pro forma* LGIA. The Commission explained that these proposed replacements reflect updated terminology.³²⁵⁸

ii. Comments

1732. Several commenters support the NOPR proposal.³²⁵⁹ Enel notes that the Commission's proposed definition of “electric reliability organization” includes NERC, but it does not include the applicable regional entity, which Enel asserts should be included because the regional entity may have approved the regional reliability standards.³²⁶⁰

iii. Commission Determination

1733. We adopt the NOPR proposal to revise the *pro forma* LGIA to require that all newly interconnecting large generating facilities provide frequency and voltage ride through capability consistent with any standards and guidelines that are applied to other generating facilities in the balancing authority area on a comparable basis. Adopting this reform enables the Commission to address an existing gap in the applicability of ride through requirements for large generating facilities with a capacity above 20 MW and with a gross plant/facility aggregate nameplate rating 75 MVA or less.

1734. Based on the record before us, we confirm the Commission's preliminary finding in the NOPR that the *pro forma* LGIP is unduly discriminatory or preferential insofar as generating facilities that are not already subject to reliability standards are not required to ride through frequency and voltage disturbance events, despite being technically capable of doing so. We note that no commenter opposes this reform.

1735. We also adopt the NOPR proposal to replace the term “applicable reliability council” with “electric reliability organization,” and the term “control area” with “balancing authority area,” throughout the *pro forma* LGIP and *pro forma* LGIA. In response to Enel's concerns, we note that, while regional reliability standards may be developed by the applicable

³²⁵³ See Transmission Planning and Cost Allocation NOPR, 179 FERC ¶ 61,028 (2022).

³²⁵⁴ NOPR, 179 FERC ¶ 61,194 at P 325.

³²⁵⁵ NOPR, 179 FERC ¶ 61,194 at P 326.

³²⁵⁶ *Id.* P 340.

³²⁵⁷ *Id.*

³²⁵⁸ *Id.* P 341.

³²⁵⁹ Ameren Initial Comments at 34; APPA–LPPC Initial Comments at 33; CAISO Initial Comments at 39–40.

³²⁶⁰ Enel Initial Comments at 81.

regional entity, the Commission has found that regional reliability standards are considered part of the electric reliability organization's set of reliability standards and are therefore covered under the proposed definition.³²⁶¹

D. Issues Beyond the Scope of This Rulemaking

1. Comments

1736. Multiple commenters ask the Commission to consider additional information or interconnection reforms not specifically raised in the NOPR. For example, some commenters address foundational issues such as generator retirement and/or replacement processes;³²⁶² the application of generator interconnection standards to merchant transmission and HVDC projects;³²⁶³ conducting a root-cause investigation of interconnection queue delays to identify and address key barriers to bringing new generating facilities online;³²⁶⁴ initiating a technical conference to identify additional reforms to meet present and future challenges;³²⁶⁵ establishing a process to provide access to transmission data to third-party businesses;³²⁶⁶ introduction of competition into the interconnection process or construction of network upgrades;³²⁶⁷ the introduction of project prioritization to allocate scarce interconnection access;³²⁶⁸ changes to operational practices to reduce network upgrade requirements;³²⁶⁹ and issues particular to different regions or transmission providers.³²⁷⁰

1737. Other commenters seek changes to tariff language such as additional reforms specific to small generating facilities and the small generator interconnection process;³²⁷¹ explicitly

stating that interconnection terms may be subject to remedial waiver upon appropriate Commission action;³²⁷² requiring detailed information be made available concerning either transmission congestion on transmission providers' systems or technical information associated with a particular point of interconnection;³²⁷³ clarifications to the interconnection service types (*i.e.*, energy-only or network resource);³²⁷⁴ replacing power flow studies with security constrained economic dispatch analysis for energy-only service studies;³²⁷⁵ the three-year suspension option in the *pro forma* LGIA;³²⁷⁶ and additional *pro forma* LGIA language on termination and breach.³²⁷⁷

1738. Several commenters focus on process-specific reforms, such as automation of the interconnection queue process to ease delays;³²⁷⁸ aligning the interconnection queue and the project development processes;³²⁷⁹ interconnection study issues such as staffing to conduct studies and study criteria and scope;³²⁸⁰ additional transparency from transmission providers on the interconnection study process, such as online interconnection queue tracking and performance metrics;³²⁸¹ and whether to implement an independent transmission monitor or allow third parties to conduct interconnection studies to reduce interconnection queue backlogs.³²⁸²

1739. Some commenters focus on network upgrade cost issues, in particular the participant funding model currently in place in certain RTOs/ISOs;³²⁸³ minimum thresholds for

identifying network upgrades;³²⁸⁴ a self-build option for stand-alone facilities;³²⁸⁵ and the "good faith" standard applied to cost and timeline estimates for network upgrades and related transmission facilities.³²⁸⁶

1740. Commenters raising resource-specific concerns address the interconnection of qualifying facilities;³²⁸⁷ challenges specific to the hydropower industry, including modifications to the readiness standard and site control requirements;³²⁸⁸ steps to promote new pumped storage projects;³²⁸⁹ using regional planning to develop operating assumptions applied to the study of electric storage resources;³²⁹⁰ and greater clarity on interconnection of battery storage additions to existing and proposed generating facilities.³²⁹¹

1741. Several commenters argue in favor of greater coordination between generator interconnection and transmission planning³²⁹² or identify interconnection as a matter requiring interregional planning.³²⁹³

1742. Some comments request that the Commission provide distinct treatment for Native American energy projects by adopting rules and policies that meet the unique needs of Tribes and that allow alternative means for fulfilling interconnection requirements, such as by providing additional time for the posting of deposits or eliminating commercial readiness requirements.³²⁹⁴

Organizations Reply Comments at 13–14; Senators Hickenlooper and King Initial Comments at 1–2.

³²⁸⁴ Enel Initial Comments at 2–4.

³²⁸⁵ CESA Initial Comments at 16–17; EEI Reply Comments at 14–15; Interwest Initial Comments at 5.

³²⁸⁶ Pattern Energy Initial Comments at 14–15.

³²⁸⁷ CREA and NewSun Initial Comments at 104–106; Uda Law Firm Initial Comments at 1–9.

³²⁸⁸ Hydropower Commenters Initial Comments at 7.

³²⁸⁹ *Id.* at 27–28.

³²⁹⁰ Interwest Reply comments at 15.

³²⁹¹ SEIA Reply Comments at 21–22.

³²⁹² ACORE Initial Comments at 2–4; ACEG Initial Comments at 1–4; CESA Initial Comments at 13–14; Clean Energy Associations Initial Comments at 10–11; Consumer Protection Coalition Reply Comments at 1–2; Cypress Creek Initial Comments at 10–11; EDF Renewables Initial Comments at 12–13; ELCON Initial Comments at 11–13; Enel Reply Comments at 2; ENGIE Reply Comments at 4; Google Initial Comments at 6–7, 22; Invenery Initial Comments at 62–63; Interwest Reply Comments at 15; National Grid Initial Comments at 45–46; New York State Department Reply Comments at 2–4; NYTOs Initial Comments at 23–24; OSPA Reply Comments at 15; Pattern Energy Initial Comments at 6–7; Public Interest Organizations Reply Comments at 16; R Street Initial Comments at 6–7; Union of Concerned Scientists Reply Comments at 8.

³²⁹³ North Carolina Commission and Staff Initial Comments at 2–3; Pattern Energy Initial Comments at 8–11.

³²⁹⁴ OSPA Reply Comments at 15–16.

³²⁶¹ Order No. 672, 114 FERC ¶ 61,104, at P 296, *order on reh'g*, Order No. 672–A, 114 FERC ¶ 61,328.

³²⁶² AEP Initial Comments at 43–44; Elevate Initial Comments at 3–7, 8–11; Illinois Commission Initial Comments at 11; New York State Department Reply Comments at 4.

³²⁶³ Invenery Initial Comments at 64–65.

³²⁶⁴ Equinor Wind Reply Comments at 7.

³²⁶⁵ Pine Gate Reply Comments at 5.

³²⁶⁶ Tesla Initial Comments at 6, 8.

³²⁶⁷ Enel Initial Comments at 5, 52–56; Shell Reply Comments at 5–18.

³²⁶⁸ Arizona Commission Initial Comments at 1; Colorado Commission Initial Comments at 9.

³²⁶⁹ Clean Energy Associations Initial Comments at 64.

³²⁷⁰ Avangrid Initial Comments at 24–25; New York State Department Initial Comments at 10; PJM Part 1 Reply Comments at 1; Roy J Shanker Initial Comments at 2–7; Roy J Shanker Reply Comments at 3–9; Southern Reply Comments at 8–9.

³²⁷¹ Bonneville Initial Comments at 25; EPRI Initial Comments at 24–38; Hydropower Commenters Initial Comments at 10–11; IREC

Initial Comments at 2–3; R Street Initial Comments at 9; and Xcel Initial Comments at 19.

³²⁷² OSPA Reply Comments at 14.

³²⁷³ CREA and NewSun Initial Comments at 21–22; Ørsted Initial Comments at 5–6.

³²⁷⁴ Enel Initial Comments at 27–28; North Dakota Commission Initial Comments at 7; R Street Initial Comments at 7; Tri-State Initial Comments at 26; Xcel Initial Comments at 16.

³²⁷⁵ Enel Initial Comments at 73–75.

³²⁷⁶ El Paso Electric Initial Comments at 4–5.

³²⁷⁷ Tri-State Initial Comments at 34–35.

³²⁷⁸ CESA Initial Comments at 5; NextEra Initial Comments at 2.

³²⁷⁹ Enel Initial Comments at 2–4.

³²⁸⁰ Affected Interconnection Customers Initial Comments at 14–15; Clean Energy Associations Initial Comments at 27; CREA and NewSun Initial Comments at 21–22; Cypress Creek Initial Comments at 3–8; New York State Department Initial Comments at 3.

³²⁸¹ Public Interest Organizations Initial Comments at 23–25.

³²⁸² Dominion Reply Comments at 22–24; EPSA Initial Comments at 13–14; SDG&E Reply Comments at 2; Southern Reply Comments at 6–7; ACORE Initial Comments at 5.

³²⁸³ ACORE Initial Comments at 8; CREA and NewSun Initial Comments at 93–104; NextEra Reply Comments at 3, 16; North Carolina Commission and Staff Initial Comments at 2–16; OSPA Reply Comments at 4–7; Public Interest

Other comments request that the Commission incorporate environmental justice considerations into the interconnection process by quantifying in the proportional impact analysis the remediation of past economic injustice and benefits of renewable development in impoverished areas³²⁹⁵ or by prioritizing the provision of low-cost, clean energy to low income and people of color communities under the FPA's public interest standard.³²⁹⁶

2. Commission Determination

1743. We consider the comments referenced in the section above to be beyond the scope of this proceeding. The Commission proposed specific reforms in the NOPR, to which commenters have responded and for which a record has been established. Even for those issues tangentially connected to NOPR proposals, the record here is inadequate to support their full consideration. Further, we consider issues regarding the coordination of transmission planning with generator interconnection to be beyond the scope of this rulemaking. We note that the Commission proposed reforms related to coordination between regional transmission planning and cost allocation and generator interconnection in Docket No. RM21-17-000.³²⁹⁷

IV. Compliance Procedures

A. NOPR Proposal

1744. In the NOPR, the Commission proposed to require each transmission provider to submit a compliance filing within 180 days of the effective date of the final rule revising its LGIP, LGIA, SGIP, and SGIA, as necessary, to demonstrate that it meets the requirements set forth in the final rule.³²⁹⁸ The Commission also proposed to permit appropriate entities to seek an "independent entity variation" or a "regional reliability variation" from the proposed requirements.³²⁹⁹ The Commission further noted that some transmission providers may have provisions in their existing LGIPs, LGIAs, SGIPs, and SGIAs subject to the Commission's jurisdiction that the Commission has previously deemed to be consistent with or superior to the *pro forma* LGIP, *pro forma* LGIA, *pro forma* SGIP, and/or *pro forma* SGIA or

permissible under the independent entity variation standard or regional reliability variation standard. Where these provisions would be modified by the final rule, the Commission proposed to require transmission providers to either comply with the final rule or demonstrate that these previously approved variations continue to meet the "consistent with or superior to" and "regional reliability variation" standard for non-RTO/ISO transmission providers and the independent entity variation standard for RTOs/ISOs.

1745. The Commission explained that it would assess whether each compliance filing satisfies the proposed requirements and issue additional orders as necessary to ensure that each transmission provider meets the requirements of the final rule.³³⁰⁰

1746. The Commission also proposed that non-public utility transmission providers would have to adopt the proposed requirements as a condition of maintaining the status of their safe harbor tariff or otherwise satisfying the reciprocity requirement of Order No. 888.³³⁰¹

B. Comments

1. Compliance Filing Deadline

1747. Consumers Energy and NRECA support the proposed requirement for transmission providers to submit compliance filings within 180 days of the effective date of a final rule in this proceeding.³³⁰² NRECA states that 180 days is a reasonable amount of time for transmission providers to assess their generation portfolios and for interconnection customers to gauge project viability and withdraw those interconnection requests that are not commercially ready.³³⁰³ Consumers Energy suggests that the Commission require RTOs/ISOs to justify any individual extensions for compliance filings.³³⁰⁴ NRECA asks the Commission to waive any existing withdrawal penalties during the period between a final rule and compliance filings to encourage the rapid withdrawal of speculative interconnection requests and the pursuit of ready interconnection requests.³³⁰⁵

1748. Some commenters argue that the Commission should provide a longer time period for compliance filings because the scope and complexity of the reforms will require substantial time

and resources and will involve lengthy stakeholder processes.³³⁰⁶ Some commenters also note that transmission providers will need to balance other priorities while developing compliance filings, such as administering the interconnection queue and pursuing transmission planning reforms.³³⁰⁷ Some commenters state that the 180-day period will be difficult for large, multi-state RTOs/ISOs that must develop large-scale tariff revisions in conjunction with large stakeholder communities.³³⁰⁸ EEI suggests a 240-day deadline for compliance filings,³³⁰⁹ while other commenters state that one year would be more appropriate.³³¹⁰

1749. PJM asks the Commission to hold its compliance filing obligation in abeyance until PJM completes the transition mechanism from its recent interconnection queue reform in Docket No. ER22-2110-000, which was the result of an 18-month stakeholder process.³³¹¹ PJM states that, if it is required to submit a compliance filing during the transition process, that will cast a cloud over the transition process while the request for an independent entity variation works through a prolonged regulatory process, bringing into doubt interconnection agreements finalized as part of the transition and further aggravating backlogs.³³¹² PJM explains that, when it completes this transition process, it can evaluate whether to adopt the final rule's reforms or demonstrate that its reforms are superior.³³¹³ PJM asserts that such a "staged" compliance process aligns with past Commission decisions and would bring more certainty to interconnection customers.³³¹⁴

2. Regional Flexibility

1750. A number of commenters call for the final rule to provide regional flexibility to account for differences in geography, state policies and regulatory

³³⁰⁶ Dominion Initial Comments at 6; EEI Initial Comments at 22; MISO Initial Comments at 126; NEPOOL Initial Comments at 12.

³³⁰⁷ EEI Initial Comments at 22; MISO Initial Comments at 126.

³³⁰⁸ Avangrid Initial Comments at 36-37; Dominion Initial Comments at 41-42; MISO Initial Comments at 126.

³³⁰⁹ EEI Initial Comments at 22.

³³¹⁰ Dominion Initial Comments at 6; MISO Initial Comments at 126.

³³¹¹ PJM Initial Comments at 2-5, 11; *see also* OPSI Initial Comments at 2-3 (explaining that it will be crucial that this proceeding does not disrupt PJM's ongoing interconnection queue reform); *see also* PJM Interconnection, L.L.C., 181 FERC ¶ 61,162.

³³¹² PJM Initial Comments at 2, 5, 11.

³³¹³ *Id.* at 12.

³³¹⁴ *Id.* at 3 (citing, e.g., Order No. 890, 118 FERC ¶ 61,119 at P 135 (adopting a two-tiered implementation process of the final rule)).

³²⁹⁵ OSPA Initial Comments at 15-16; OSPA Reply Comments at 3.

³²⁹⁶ Energy Keepers Initial Comments at 3; Navajo Utility Initial Comments at 13. Public Interest Organizations Reply Comments at 11.

³²⁹⁷ ANOPR, 176 FERC ¶ 61,024.

³²⁹⁸ NOPR, 179 FERC ¶ 61,194 at P 342.

³²⁹⁹ *Id.* (citing Order No. 2003, 104 FERC ¶ 61,103 at PP 822-827; Order No. 2006, 111 FERC ¶ 61,220 at PP 546-550).

³³⁰⁰ *Id.* P 343.

³³⁰¹ *Id.* P 344.

³³⁰² Consumers Energy Initial Comments at 10; NRECA Initial Comments at 7, 49.

³³⁰³ NRECA Initial Comments at 7, 49.

³³⁰⁴ Consumers Energy Initial Comments at 10.

³³⁰⁵ NRECA Initial Comments at 49.

frameworks, different network electrical characteristics, market structures, resource mixes, and other factors.³³¹⁵ Many commenters explain that many transmission providers have already adopted or are in the process of adopting some of the NOPR proposals or similar processes targeting the challenges cited in the NOPR.³³¹⁶ Many commenters ask the Commission to ensure the final rule acknowledges and accommodates existing interconnection queue reform efforts and does not undo or disrupt progress.³³¹⁷ Some commenters specifically ask the Commission to allow transmission providers like PJM and Dominion to implement recent interconnection queue reform proposals, even though they differ in some aspects from the NOPR.³³¹⁸ Some commenters ask the Commission to continue applying its current standards for variations from the *pro forma* LGIP (*i.e.*, independent entity variations for RTOs/ISOs and consistent with or superior to variations for non-RTOs/ISOs).³³¹⁹ For example, ISO-NE

contends that the Commission should respect its existing independent entity variations and allow it to continue building upon those variations.³³²⁰

1751. In contrast, other commenters request that the Commission apply a new standard when evaluating variations from the *pro forma* requirements.³³²¹ OMS asks the Commission to allow transmission providers initiating their own stakeholder-supported interconnection reforms to continue developing regionally appropriate solutions upon a compliance showing of “substantial conformity” with the final rule requirements.³³²² MISO argues that the Commission should create an “independent entity presumption of reasonableness,” under which the Commission would rebuttably presume that any previous, proactive RTO/ISO reform that addresses the objectives of a final rule requirement (but does not conform to every detail) is eligible for an independent entity variation, unless an intervenor demonstrates that the previous reform does not provide the benefit that technical compliance with the final rule would.³³²³ NextEra also states that requiring transmission providers and stakeholders to have to justify whether their past reform initiatives match the Commission’s new rule would likely waste time and resources.³³²⁴

1752. Similarly, the Early Adopters Coalition ask the Commission to rebuttably presume that first-ready, first-served interconnection queue reforms already in place continue to be just and reasonable and not unduly discriminatory and consistent with or superior to the *pro forma* requirements.³³²⁵ Further, the Early Adopters Coalition and Indicated PJM TOs argue that there is an insufficient legal foundation under FPA section 206 to conclude that the Early Adopters

Coalition’s tariffs are unjust, unreasonable, and unduly discriminatory or preferential because the Commission’s FPA section 206 finding only speaks to the generic *pro forma* requirements, while many transmission providers’ tariffs have already departed from those requirements.³³²⁶ Indicated PJM TOs state that the Commission lacks the authority under FPA section 206 to require modification of a tariff that does not include the elements determined in the final rule to be unjust and unreasonable or unduly discriminatory.³³²⁷

1753. The Early Adopters Coalition also express concern that the proposed reforms would result in a higher burden of proof to justify departures from the *pro forma* requirements in future filings and signal that the Commission may not accept further incremental improvements; therefore, they ask the Commission to clarify that the final rule will not stifle their ability to improve their existing tariffs.³³²⁸

1754. PacifiCorp expresses concern that the NOPR proposal could disrupt some of PacifiCorp’s unique processes, including its inclusion of small generating facilities in the cluster study process with large generating facilities and its incorporation of the Commission-jurisdictional interconnection process into its state-level interconnection procedures.³³²⁹

1755. CREA and NewSun contest PacifiCorp’s and the other Early Adopters Coalition’s argument that the Commission’s approval of their LGIPs under FPA section 205 exempts them from any reforms adopted in a final rule in this proceeding because the Commission has an obligation under FPA section 206 to remedy unjust, unreasonable, and unduly discriminatory or preferential practices.³³³⁰ CREA and NewSun also note that neither utility- nor region-specific findings are necessary in a generic rulemaking; rather, the Commission can rely on basic economic theory and generic factual predictions.³³³¹ CREA and NewSun also

³³¹⁵ APPA–LPPC Initial Comments at 2–3; Avangrid Initial Comments at 36; Avangrid Reply Comments at 4; Dominion Reply Comments at 4; EEI Initial Comments at 3–4; EEI Reply Comments at 13; Idaho Power Initial Comments at 1; Illinois Commission Comments at 3; Indicated PJM TOs Initial Comments at 1–2; Indicated PJM TOs Reply Comments at 43; ISO–NE Initial Comments at 3, 13, 15–16, 38; MISO TOs Initial Comments at 13; NARUC Initial Comments at 6–7; National Grid Initial Comments at 4–5; NEPOOL Initial Comments at 3–4, 12, 17; NESCOE Reply Comments at 4; NRECA Initial Comments at 7; NYTOs Initial Comments at 6; North Dakota Commission Initial Comments at 2; Southern Initial Comments at 14–15; U.S. Chamber of Commerce Initial Comments at 2–3.

³³¹⁶ ACOE Reply Comments at 6; Alliant Initial Comments at 1; Ameren Initial Comments at 35; APPA–LPPC Initial Comments at 2–3; ClearPath Initial Comments at 6; Early Adopters Coalition Initial Comments at 2, 13; EEI Initial Comments at 3–4; MISO Initial Comments at 2–3, 18; MISO Reply Comments at 2; NARUC Initial Comments at 10–11; National Grid Initial Comments at 4–5; NYISO Reply Comments at 2; NYTOs Initial Comments at 6; Omaha Public Power Initial Comments at 13; U.S. Chamber of Commerce Initial Comments at 2–3.

³³¹⁷ ACOE Reply Comments at 6; Alliant Initial Comments at 1; APPA–LPPC Initial Comments at 2–3; Ameren Initial Comments at 35; Early Adopters Coalition Initial Comments at 2–3, 13, 19, 21; Dominion Initial Comments at 42; Dominion Reply Comments at 4; Duke Southeast Utilities Initial Comments at 3–4; Illinois Commission Comments at 3; Indicated PJM TOs Initial Comments at 1–2; Indicated PJM TOs Reply Comments at 9; MISO Initial Comments at 4–5, 18–19, 128; MISO TOs Initial Comments at 7–9; NARUC Initial Comments at 7, 11; National Grid Initial Comments at 4–5; NRECA Initial Comments at 8; NYTOs Initial Comments at 6; Omaha Public Power Initial Comments at 13; OMS Initial Comments at 3–4; PacifiCorp Initial Comments at 2; U.S. Chamber of Commerce Initial Comments at 2–3.

³³¹⁸ ClearPath Initial Comments at 6; Dominion Initial Comments at 5–6; Indicated PJM TOs Initial Comments at 1–2; MISO Reply Comments at 2; PJM Initial Comments at 2.

³³¹⁹ Ameren Initial Comments at 35; Consumer Protection Coalition Reply Comments at 2; EEI

Initial Comments at 3; Google Reply Comments at 7–8; Indicated PJM TOs Initial Comments at 9; Indicated PJM TOs Reply Comments at 44; ISO–NE Initial Comments at 13–15; National Grid Initial Comments at 4–5; NEPOOL Initial Comments at 3; NYTOs Initial Comments at 6; PG&E Initial Comments at 2; PG&E Reply Comments at 2; PJM Initial Comments at 3, 12.

³³²⁰ ISO–NE Initial Comments at 8–15 (providing a detailed overview of ISO–NE’s existing independent entity variations, which align the interconnection process with the forward capacity market, provide for targeted clustering, and allow interconnection customers to pursue elective transmission upgrades to support queued interconnection requests).

³³²¹ MISO Initial Comments at 18–19.

³³²² OMS Initial Comments at 4.

³³²³ MISO Initial Comments at 18–19.

³³²⁴ NextEra Reply Comments at 7.

³³²⁵ Early Adopters Coalition Initial Comments at 18.

³³²⁶ *Id.* at 2, 15 (citing *Emera Maine v. FERC*, 854 F.3d 9, 25 (D.C. Cir. 2017)); Indicated PJM TOs Reply Comments at 8; PacifiCorp Initial Comments at 6–7.

³³²⁷ Indicated PJM TOs Reply Comments at 7–9.

³³²⁸ Early Adopters Coalition Initial Comments at 21.

³³²⁹ PacifiCorp Initial Comments at 7–9.

³³³⁰ CREA and NewSun Reply Comments at 15–16.

³³³¹ *Id.* at 17–18 (citing *Transmission Access Policy Study Grp. v. FERC*, 225 F.3d 667, 687 (D.C. Cir. 2000), *aff’d sub nom. New York v. FERC*, 535

assert that the sole authority cited by the Early Adopters Coalition, *Emera Maine v. FERC*, is inapposite, because it involved a challenge to a specific transmission owners' base return on equity, not a nationwide rulemaking.³³³²

1756. In response to requests for additional flexibility, Public Interest Organizations and Clean Energy Associations assert that transmission providers should be required to demonstrate in compliance filings that their approach to a given requirement complies with the Commission's final rule.³³³³

1757. Xcel asks the Commission to state in the final rule that there is not just one just and reasonable approach to interconnection reform.³³³⁴ Xcel requests that the Commission confirm that alternative approaches used by RTOs/ISOs that achieve the policy goals of prioritizing ready interconnection requests and increasing the speed of interconnection queue processing are consistent with and superior to the *pro forma* LGIP, instead of using the independent entity variation standard when approving those RTOs/ISOs' compliance filings. Xcel explains that its preferred approach would allow non-RTOs/ISOs to replicate processes that are working efficiently in RTOs/ISOs.

1758. ACORE expresses concern that too much flexibility would detract from the benefits of a final rule.³³³⁵ ACORE explains that a consistent minimum set of requirements and common interconnection study methods and best practices is essential across all transmission providers.

3. Reciprocity Tariffs

1759. APPA-LPPC and NRECA seek clarification on the NOPR's statements regarding reciprocity tariffs.³³³⁶ They point out that Commission precedent allows non-public utilities to satisfy the reciprocity requirement of Order No. 888 through one of three means: (1) providing service to a public utility transmission provider under a safe harbor tariff; (2) providing service under a bilateral agreement; or (3) seeking waiver.³³³⁷ APPA-LPPC and NRECA explain that the NOPR's statement that

non-public utility transmission providers "will have to adopt the requirements of this Proposed Rule as a condition of maintaining the status of their safe harbor tariff or otherwise satisfying the reciprocity requirement of Order No. 888" could be read to suggest that the other ways of satisfying the reciprocity requirement no longer exist.³³³⁸ APPA-LPPC and NRECA ask the Commission to clarify that non-public utilities will still be able to satisfy reciprocity requirements through bilateral arrangements or waiver.

4. Effective Date

1760. MISO asks the Commission to make the reforms effective when orders on compliance are issued, rather than on the final rule's effective date, to avoid retroactive implementation of the proposed reforms and disruption in administering interconnection queues.³³³⁹ MISO explains that an effective date prior to the date of accepted compliance provisions would require a transmission provider to file new agreements with pending language, which means that transmission providers will need to file interconnection agreements and service agreements instead of using the electronic quarterly report (EQR) process.

5. Miscellaneous

1761. SoCal Edison states that the final rule should not automatically apply to a wholesale distribution access tariff without further consideration in a separate rulemaking.³³⁴⁰ SoCal Edison argues that the Commission should allow entities to align distribution-level tariffs with corresponding transmission-level tariffs to avoid gaming of interconnection locations and contends that the changes proposed in this NOPR are too extensive to apply to the unique characteristics of the distribution system.³³⁴¹ SoCal Edison states that the Commission has previously confirmed that reforms to the LGIP and LGIA are not required for the interconnection agreements under the wholesale distribution access tariff, and different processes, interconnection costs, and penalties could introduce new challenges for wholesale distribution providers and interconnection efficiencies that have not been addressed in the NOPR.

C. Commission Determination

1762. We modify the deadline for transmission providers to submit a compliance filing to adopt the requirements of this final rule as revisions to the LGIP, LGIA, SGIP, and SGIA in their tariffs. We require the submission of such compliance filings within 90 calendar days of the publication date of this final rule in the **Federal Register** rather than the proposed 180 days from the effective date of the final rule. We believe that it is important to implement this final rule in a timely manner, given the pressing need to reform the interconnection processes, as discussed in this final rule. On the Commission-approved effective date of the transmission provider's compliance filing with this final rule, the transmission provider will commence the transition study process.³³⁴² After the conclusion of the transition study process, the transmission provider will begin the first standard cluster study process,³³⁴³ and in its compliance filing, the transmission provider will indicate the number of calendar days after the conclusion of the transition study process when it will begin this first standard cluster study process (e.g., 30 calendar days after the conclusion of the transition study process).³³⁴⁴ By setting a 90-calendar day compliance filing deadline, the Commission may be in a position to act on the filings sooner, which will allow transmission providers to commence the transition process and progress to the first standard cluster study process earlier, and thereby implement the reforms contemplated by this final rule earlier rather than later.

1763. We note that 90 days is longer than the 60 days provided for compliance with Order No. 2003. In their compliance filings for Order No. 2003, transmission providers were required to adopt the *pro forma* LGIP and *pro forma* LGIA. Under this final rule, transmission providers are required to revise the LGIP, LGIA, SGIP, and SGIA in their tariffs, but are not provided significant discretion as to the terms of those documents, except for those who request deviations, as discussed below. While we recognize that the compliance filings for some transmission providers will entail more complexity, we believe that 90 calendar

U.S. 1, 14 (2002); *Xcel Energy Servs. v. FERC*, 41 F.4th 548, 560–61 (D.C. Cir. 2022)).

³³³² *Id.* at 19.

³³³³ Clean Energy Associations Reply Comments at 11; Public Interest Organizations Reply Comments at 14.

³³³⁴ Xcel Initial Comments at 17.

³³³⁵ ACORE Reply Comments at 6.

³³³⁶ APPA-LPPC Initial Comments at 34–36; NRECA Initial Comments at 10, 50.

³³³⁷ APPA-LPPC Initial Comments at 34; NRECA Initial Comments at 50.

³³³⁸ APPA-LPPC Initial Comments at 36; NRECA Initial Comments at 51.

³³³⁹ MISO Initial Comments at 127; MISO Reply Comments at 27.

³³⁴⁰ SoCal Edison Initial Comments at 10; SoCal Edison Reply Comments at 2.

³³⁴¹ SoCal Edison Initial Comments at 10–11.

³³⁴² *Pro forma* LGIP section 5.1.1.1 (Transitional Serial Study); *Pro forma* LGIP section 5.1.1.2 (Transitional Cluster Study).

³³⁴³ We note that this standard cluster study process is distinct from the transitional cluster study process described above. *See supra* section III.A.7.c.

³³⁴⁴ *Pro forma* LGIP section 3.4.1 (Cluster Request Window).

days should be sufficient time to prepare and submit even the more complex compliance filings. Further, the need to implement the reforms set forth in this final rule earlier rather than later outweighs the concerns raised about the timing of the compliance filing deadline.

1764. Consistent with Order Nos. 888, 890, 2003, 2006, and 845, we adopt the NOPR proposal to continue to apply the “consistent with or superior to” standard when considering proposals from non-RTO/ISO transmission providers to deviate from the requirements of this final rule.³³⁴⁵ Consistent with Order Nos. 2003, 2006, and 845, we adopt the NOPR proposal to continue to use the “independent entity variation” standard when considering such proposals from RTOs/ISOs.³³⁴⁶ Consistent with Order Nos. 888, 890, 2003, 2006, and 845, we adopt the NOPR proposal to continue to allow non-RTO/ISO transmission providers to use the regional differences rationale to seek variations made in response to established reliability requirements.³³⁴⁷ In this final rule, we make no changes to the standards used to judge requested variations, as described in Order Nos. 888, 890, 2003, 2006, and 845.

1765. We reject requests to presume that any transmission provider’s tariff meets the requirements of this final rule. We recognize that many transmission providers have adopted or are in the

process of adopting similar reforms to those adopted in this final rule. We do not intend to disrupt these ongoing transition processes or stifle further innovation. On compliance, transmission providers can propose deviations from the requirements adopted in this final rule—including deviations seeking to minimize interference with ongoing transition plans—and demonstrate how those deviations satisfy the standards discussed above, which the Commission will consider on a case-by-case basis.

1766. We disagree with commenters that suggest that FPA section 206 requires the Commission to make findings specific to each transmission provider’s tariff in this final rule to require transmission providers to comply with the requirements of this final rule. As some commenters recognize, neither utility- nor region-specific findings are necessary in a generic rulemaking.³³⁴⁸

1767. In response to commenters that prefer regional reform over generic one-size-fits-all reform, we note that transmission providers may seek the appropriate variation on compliance provided the reason for the variation is sufficiently justified and may continue to propose solutions to interconnection issues under FPA section 205. However, given the nation-wide need for reforms to ensure that interconnection customers are able to interconnect to the transmission system in a reliable, efficient, transparent, and timely manner, as well as prevent undue discrimination, we believe that a generic rulemaking is appropriate, as explained above in section II and throughout this final rule.

1768. In the NOPR, the Commission stated that non-public utility transmission providers “will have to adopt the requirements of this Proposed Rule as a condition of maintaining the status of their safe harbor tariff or otherwise satisfying the reciprocity requirement of Order No. 888.”³³⁴⁹ As requested by NRECA and APPA-LPPC,³³⁵⁰ we clarify that this final rule does not modify the Commission’s reciprocity requirement in Order Nos. 888 and 2003.³³⁵¹ Thus, while a non-public utility’s adoption of the proposed LGIP/LGIA and SGIP/SGIA changes is a condition of maintaining a safe harbor

tariff,³³⁵² non-public utilities may still use a request for waiver or bilateral agreements to satisfy the reciprocity requirement of Order No. 888–A.³³⁵³

1769. With respect to MISO’s comments, as explained below, this final rule is effective November 6, 2023. This final rule will be effective as described above; however, the *pro forma* LGIP, *pro forma* LGIA, *pro forma* SGIP, and *pro forma* SGIP requirements in transmission providers’ tariffs will not be effective until the Commission-approved effective date of the transmission provider’s filing in compliance with this final rule. In other words, interconnection customers seeking to interconnect to MISO’s transmission system will not be subject to the requirements of this final rule until the Commission issues an order on MISO’s compliance filing with a Commission-approved effective date for MISO’s tariff revisions.

1770. In response to SoCal Edison’s request for the Commission to clarify that the reforms described herein will not automatically apply to wholesale distribution access tariffs, we note that in Order No. 2003, the Commission stated that the *pro forma* LGIA and *pro forma* LGIP adopted in that final rule apply to a request to interconnect to a public utility’s “distribution” facilities used to transmit electric energy in interstate commerce on behalf of a wholesale purchaser pursuant to a Commission-filed open access transmission tariff.³³⁵⁴ To the extent that SoCal Edison has concerns about its specific wholesale distribution access

³³⁴⁵ Order No. 888, FERC Stats. & Regs. ¶ 31,036, at 31,769–770; Order No. 890, 118 FERC ¶ 61,119 at P 109 (“[W]e reiterate that any departures from the *pro forma* [open access transmission tariff] proposed by an ISO or an RTO must be ‘consistent with or superior to’ the *pro forma* [open access transmission tariff] in this Final Rule.”); Order No. 2003, 104 FERC ¶ 61,103 at P 825; Order No. 2006, 111 FERC ¶ 61,220 at PP 546–547; Order No. 845, 163 FERC ¶ 61,043 at P 43 (explaining that a transmission provider that is not an RTO/ISO that seeks a variation from the requirements of the final rule must present its justification for the variation as consistent with or superior to the *pro forma* LGIA or *pro forma* LGIP).

³³⁴⁶ Order No. 2003, 104 FERC ¶ 61,103 at P 826 (“[w]ith respect to an RTO or ISO . . . we will allow it to seek ‘independent entity variations’ from the Final Rule . . . This is a balanced approach that recognizes that an RTO or ISO has different operating characteristics depending on its size and location and is less likely to act in an unduly discriminatory manner than a Transmission Provider that is a market participant.”); Order No. 2006, 111 FERC ¶ 61,220 at PP 447, 549; Order No. 845, 163 FERC ¶ 61,043 at P 556.

³³⁴⁷ Order No. 888, FERC Stats. & Regs. ¶ 31,036, at 31,770; Order No. 890, 118 FERC ¶ 61,119 at P 109; Order No. 2003, 104 FERC ¶ 61,103 at P 826 (“if on compliance a non-RTO or ISO Transmission Provider offers a variation from the Final Rule LGIP and Final Rule LGIA, and the variation is in response to established (*i.e.*, approved by the Applicable Reliability Council) reliability requirements, then it may seek to justify its variation using the regional difference rationale.”); Order No. 2006, 111 FERC ¶ 61,220 at PP 546–547; Order No. 845, 163 FERC ¶ 61,043 at P 43.

³³⁴⁸ See *Transmission Access Policy Study Grp.*, 225 F.3d at 687–88.

³³⁴⁹ NOPR, 179 FERC ¶ 61,194 at P 344.

³³⁵⁰ APPA–LLC Initial Comments at 34–36; NRECA Initial Comments at 50–51.

³³⁵¹ Order No. 888, FERC Stats. & Regs. ¶ 31,036, at 31,760–761; Order No. 2003, 104 FERC ¶ 61,103 at PP 840–842.

³³⁵² Order No. 2003, 104 FERC ¶ 61,103 at P 842 (“A non-public utility that has a ‘safe harbor’ Tariff may add to its Tariff an interconnection agreement and interconnection procedures that substantially conform or are superior to the Final Rule LGIP and Final Rule LGIA if it wishes to continue to qualify for safe harbor treatment.”)

³³⁵³ Order No. 888–A, FERC Stats. & Regs. ¶ 31,048 at 30,285–86; see also Order No. 2003, 104 FERC ¶ 61,103 at P 841; Order No. 2003–A, 106 FERC ¶ 61,220 at P 760 (clarifying that reciprocity applies to interconnection service in a manner consistent with the reciprocity provision in the *pro forma* open access transmission tariff); Order No. 2006, 111 FERC ¶ 61,220 at P 534.

³³⁵⁴ See Order No. 2003, 104 FERC ¶ 61,103 at P 804; *id.* P 803 (some lower-voltage facilities are “local distribution” facilities not under our jurisdiction, but some are used for jurisdictional service such as carrying power to a wholesale power customer for resale and are included in a public utility’s open access transmission tariff (although in some instances, there is a separate open access transmission tariff rate for using them, sometimes called a wholesale distribution rate.)); Order No. 2003–A, 106 FERC ¶ 61,220 at P 733 (“We clarify that Order No. 2003 applies to all facilities subject to a Commission-approved [open access transmission tariff], regardless of how the facilities may be labeled by the Transmission Provider) (citing *N. Y. v. FERC*, 535 U.S. at 12; *Puget Sound Energy, Inc.*, 104 FERC ¶ 61,272, at PP 16–18 (2003)).

tariff, this is a matter better suited to SoCal Edison's compliance filing.³³⁵⁵

1771. We also note that, in addition to the modifications described above, the *pro forma* LGIP, *pro forma* LGIA, *pro forma* SGIP, *pro forma* SGIP language below includes several corrections of clerical errors and other minor, clarifying edits: *see, e.g., pro forma* LGIA article 8.4, *pro forma* LGIP appendix G.

V. Information Collection Statement

1772. The information collection requirements contained in this final rule are subject to review by the Office of Management and Budget (OMB) under section 3507(d) of the Paperwork Reduction Act of 1995.³³⁵⁶ OMB's regulations require approval of certain information collection requirements imposed by agency rules.³³⁵⁷ Respondents subject to the filing requirements of this final rule will not be penalized for failing to respond to the collection of information unless the collection of information displays a valid OMB control number.

1773. The reforms adopted in this final rule revise the Commission's standard large generator interconnection procedures and agreements (*i.e.*, the *pro forma* LGIP and *pro forma* LGIA) and the Commission's standard small generator interconnection procedures and agreement (*i.e.*, the *pro forma* SGIP and *pro forma* SGIA) that every public utility transmission provider is required to include in their tariff under § 35.28 of the Commission's regulations.³³⁵⁸ This final rule requires each transmission provider to amend the standard large generator interconnection procedures and agreement and the standard small generator interconnection procedures and agreement in its tariff to implement the reforms adopted in this final rule, which are intended to ensure that the generator interconnection process is just, reasonable, and not unduly discriminatory or preferential. These provisions affect the following collections of information: FERC-516, Electric Rate Schedules and Tariff Filings (Control No. 1902-0096); and FERC-516A, Standardization of Small Generator Interconnection Agreements and Procedures (Control No. 1902-0203).

1774. In the NOPR, the Commission solicited comments on: the Commission's need for this information; whether the information will have practical utility; the accuracy of the burden estimates; ways to enhance the quality, utility, and clarity of the information to be collected or retained; and any suggested methods for minimizing respondents' burden. In response to comments on the NOPR,³³⁵⁹ we note that this information collection statement estimates only those burdens³³⁶⁰ to generate, maintain, retain, or disclose or provide information to or for a Federal agency, and does not intend to estimate overall compliance or implementation costs for transmission providers.

1775. Summary of the Revisions to the Collection of Information due to the final rule in Docket No. RM22-14-000:

- **FERC-516:** This final rule revises the Commission's *pro forma* LGIP and *pro forma* LGIA (and thus requires each public utility to amend its LGIP and LGIA) to ensure that interconnection customers are able to interconnect to the transmission system in a reliable, efficient, transparent, and timely manner, and prevent undue discrimination. As illustrated in the table below, most reforms affect the *pro forma* LGIP and *pro forma* LGIA.

- **FERC-516A:** Among other requirements, this final rule amends the Commission's standard small generator interconnection procedures and agreement (*i.e.*, the *pro forma* SGIP and *pro forma* SGIA) regarding evaluation of alternative transmission technologies, modeling required for accurate interconnection studies, and maintenance of power production during abnormal frequency conditions and certain voltage conditions.

- **Title:** Electric Rate Schedules and Tariff Filings (FERC-516) and Standardization of Small Generator Interconnection Agreements and Procedures (FERC-516A).

- **Action:** Revision of collections of information in accordance with Docket No. RM22-14-000.

- **OMB Control Nos.:** 1902-0096 (FERC-516) and 1902-0203 (FERC-516A).

- **Respondents:** Public utility transmission providers, including RTOs/ISOs.

- **Frequency of Information Collection:** One time during Year 1. Multiple times during subsequent years.

- **Necessity of Information:** The reforms in this final rule ensure that interconnection customers are able to interconnect to the transmission system in a reliable, efficient, transparent, and timely manner, and prevent undue discrimination. The reforms are intended to ensure that the generator interconnection process is just, reasonable, and not unduly discriminatory or preferential.

- **Internal Review:** We have reviewed the reforms that impose information collection burdens and have determined that such reforms are necessary. These requirements conform to the Commission's need for efficient information collection, communication, and management within the energy industry. We have specific, objective support for the burden estimates associated with the information collection requirements.

- **Public Reporting Burden:** Our estimate of the number of reporting entities is based on the number of transmission providers that submitted compliance filings to the Commission in response to Order No. 845, which is the Commission's most recent rulemaking that required transmission providers to revise their generator interconnection procedures and agreements, and Order No. 881, which is the Commission's most recent major rulemaking adopting reforms to the *pro forma* tariff. As such, we estimate that 44 transmission providers, including RTOs/ISOs, will be subject to this rulemaking. The burden and cost estimates below are based on (1) the initial need for transmission providers to file revised versions of the standard interconnection procedures and agreements in Year 1 and (2) ongoing information collection activities in connection with reporting and disclosure requirements in subsequent years. For many reforms, we estimate no ongoing information collection burden because there is either no information collection aspect of the reform or the requirements would merely supplant existing ones.

1776. The Commission estimates that the final rule in Docket No. RM22-14-000 will adjust the burden and cost of FERC-516 and FERC-516A as follows:

³³⁵⁵ See Order No. 2003-A, 106 FERC ¶ 61,220 at P 734. We note, however, that the Commission has previously accepted SoCal Edison's filing, made in compliance with Order No. 2003, to implement provisions from the Commission's *pro forma* LGIA and *pro forma* LGIP into its wholesale distribution access tariff. *See S. Cal. Edison Co.*, 110 FERC ¶ 61,176 (2005).

³³⁵⁶ 44 U.S.C. 3507(d).

³³⁵⁷ 5 CFR 1320.11 (2022).

³³⁵⁸ 18 CFR 35.28(f)(1) (2022).

³³⁵⁹ Indicated PJM TOs state that the NOPR did not attempt to quantify the administrative burden for the transmission provider's staff to perform the tasks required by the proposed reforms, and SPP offered an estimated range of its potential costs of administering the proposed procedures. *See* Indicated PJM TOs Initial Comments at 7; SPP

Initial Comments at 28; *see also* NOPR, 179 FERC ¶ 61,194 at P 358 & n.480.

³³⁶⁰ "Burden" is the total time, effort, or financial resources expended by persons to generate, maintain, retain, or disclose or provide information to or for a Federal agency. For further explanation of what is included in the information collection burden, refer to 5 CFR 1320.3 (2022).

TABLE 1—INFORMATION COLLECTION REQUIREMENTS

Changes due to Final Rule in Docket No. RM22–14–000					
Reforms	Number of respondents	Annual number of responses per respondent	Total number of responses (rounded)	Average burden (hr.) & cost (\$) per response ³³⁶¹	Total annual burden hours & total annual cost (\$) (rounded)
	(1)	(2)	(1) * (2) = (3)	(4)	(3) * (4) = (5)
FERC–516					
Interconnection Information Access	44 (TPs)	Year 1: 1 Ongoing: 2	Year 1: 44 Ongoing: 88	Year 1: 4 hr; \$364 Ongoing: 4 hr; \$364 ..	Year 1: 176 hr; \$16,016 Ongoing: 352 hr; \$32,032
First Ready, First Served Cluster Study Process.	44 (TPs)	Year 1: 1 Ongoing: 4	Year 1: 44 Ongoing: 176	Year 1: 80 hr; \$7,280 Ongoing: 4 hr; \$364 ..	Year 1: 3,520 hr; \$320,320 Ongoing: 704 hr; \$64,064
Allocation of Cluster Study Costs	44 (TPs)	Year 1: 1 Ongoing: 0	Year 1: 44 Ongoing: 0	Year 1: 4 hr; \$364 Ongoing: 0	Year 1: 176 hr; \$16,016 Ongoing: 0
Allocation of Cluster Network Upgrade Costs	44 (TPs)	Year 1: 1 Ongoing: 0	Year 1: 44 Ongoing: 0	Year 1: 4 hr; \$364 Ongoing: 0	Year 1: 176 hr; \$16,016 Ongoing: 0
Study Deposits and LGIA Deposit	44 (TPs)	Year 1: 1 Ongoing: 0	Year 1: 44 Ongoing: 0	Year 1: 4 hr; \$364 Ongoing: 0	Year 1: 176 hr; \$16,016 Ongoing: 0
Demonstration of Site Control	44 (TPs)	Year 1: 1 Ongoing: 0	Year 1: 44 Ongoing: 0	Year 1: 80 hr; \$7,280 Ongoing: 0	Year 1: 3,520 hr; \$320,320 Ongoing: 0
Commercial Readiness	44 (TPs)	Year 1: 1 Ongoing: 0	Year 1: 44 Ongoing: 0	Year 1: 4 hr; \$364 Ongoing: 0	Year 1: 176 hr; \$16,016 Ongoing: 0
Withdrawal Penalties	44 (TPs)	Year 1: 1 Ongoing: 0	Year 1: 44 Ongoing: 0	Year 1: 4 hr; \$364 Ongoing: 0	Year 1: 176 hr; \$16,016 Ongoing: 0
Transition Process	44 (TPs)	Year 1: 1 Ongoing: 0	Year 1: 44 Ongoing: 0	Year 1: 80 hr; \$7,280 Ongoing: 0	Year 1: 3,520 hr; \$320,320 Ongoing: 0
Elimination of Reasonable Efforts Standard. ³³⁶²	44 (TPs)	Year 1: 1 Ongoing: 4	Year 1: 44 Ongoing: 176	Year 1: 80 hr; \$7,280 Ongoing: 4 hr; \$364 ..	Year 1: 3,520 hr; \$320,320 Ongoing: 704 hr; \$64,064
Affected System Study Process	44 (TPs)	Year 1: 1 Ongoing: 0	Year 1: 44 Ongoing: 44	Year 1: 80 hr; \$7,280 Ongoing: 0	Year 1: 3,520 hr; \$320,320 Ongoing: 0
Affected System <i>Pro Forma</i> Agreements	44 (TPs)	Year 1: 1 Ongoing: 0	Year 1: 44 Ongoing: 0	Year 1: 4 hr; \$364 Ongoing: 0	Year 1: 176 hr; \$16,016 Ongoing: 0
Affected System Modeling and Study Assumptions.	44 (TPs)	Year 1: 1 Ongoing: 0	Year 1: 44 Ongoing: 0	Year 1: 4 hr; \$364 Ongoing: 0	Year 1: 176 hr; \$16,016 Ongoing: 0
Co-Located Generating Facilities Behind One Point of Interconnection with Shared Interconnection Requests.	44 (TPs)	Year 1: 1 Ongoing: 0	Year 1: 44 Ongoing: 0	Year 1: 4 hr; \$364 Ongoing: 0	Year 1: 176 hr; \$16,016 Ongoing: 0
Revisions to Modification to Require Consideration of Generating Facility Additions.	44 (TPs)	Year 1: 1 Ongoing: 0	Year 1: 44 Ongoing: 0	Year 1: 80 hr; \$7,280 Ongoing: 0	Year 1: 3,520 hr; \$320,320 Ongoing: 0
Availability of Surplus Interconnection Service	44 (TPs)	Year 1: 1 Ongoing: 0	Year 1: 44 Ongoing: 0	Year 1: 4 hr; \$364 Ongoing: 0	Year 1: 176 hr; \$16,016 Ongoing: 0
Operating Assumptions for Interconnection Studies.	44 (TPs)	Year 1: 1 Ongoing: 0	Year 1: 44 Ongoing: 0	Year 1: 80 hr; \$7,280 Ongoing: 0	Year 1: 3,520 hr; \$320,320 Ongoing: 0
Incorporating Enumerated Alternative Transmission Technologies into the Generator Interconnection Process.	44 (TPs)	Year 1: 1 Ongoing: 0	Year 1: 44 Ongoing: 0	Year 1: 80 hr; \$7,280 Ongoing: 0	Year 1: 3,520 hr; \$320,320 Ongoing: 0
Modeling Requirements	44 (TPs)	Year 1: 1 Ongoing: 0	Year 1: 44 Ongoing: 0	Year 1: 4 hr; \$364 Ongoing: 0	Year 1: 176 hr; \$16,016 Ongoing: 0
Ride-Through Requirements	44 (TPs)	Year 1: 1 Ongoing: 0	Year 1: 44 Ongoing: 0	Year 1: 4 hr; \$364 Ongoing: 0	Year 1: 176 hr; \$16,016 Ongoing: 0
Applicability of Ride-Through Requirements ...	44 (TPs)	Year 1: 1 Ongoing: 0	Year 1: 44 Ongoing: 0	Year 1: 4 hr; \$364 Ongoing: 0	Year 1: 176 hr; \$16,016 Ongoing: 0
Total New Burden for FERC–516 (due to Docket No. RM22–14–000).		Year 1: 924 Ongoing: 1,760 hr; \$160,160		Year 1: 30,448 hr; \$2,770,768 Ongoing: 484	

TABLE 1—INFORMATION COLLECTION REQUIREMENTS—Continued

Changes due to Final Rule in Docket No. RM22–14–000					
Reforms	Number of respondents	Annual number of responses per respondent	Total number of responses (rounded)	Average burden (hr.) & cost (\$) per response ³³⁶¹	Total annual burden hours & total annual cost (\$) (rounded)
	(1)	(2)	(1) * (2) = (3)	(4)	(3) * (4) = (5)
FERC–516A					
Incorporating Enumerated Alternative Transmission Technologies into the Generator Interconnection Process.	44 (TPs)	Year 1: 1 Ongoing: 0	Year 1: 44 Ongoing: 0	Year 1: 80 hr; \$7,280 Ongoing: 0	Year 1: 3,520 hr; \$320,320 Ongoing: 0
Modeling Requirements	44 (TPs)	Year 1: 1 Ongoing: 0	Year 1: 44 Ongoing: 0	Year 1: 4 hr; \$364 Ongoing: 0	Year 1: 176 hr; \$16,016 Ongoing: 0
Ride-Through Requirements	44 (TPs)	Year 1: 1 Ongoing: 0	Year 1: 44 Ongoing: 0	Year 1: 4 hr; \$364 Ongoing: 0	Year 1: 176 hr; \$16,016 Ongoing: 0
Total New Burden for FERC–516A (due to Docket No. RM22–14–000).		Year 1: 132 responses Ongoing: 0		Year 1: 3,872 hr; \$352,352 Ongoing: 0	
Grand Total (FERC–516 plus FERC–516A, including all respondents).		Year 1: 1,056 Ongoing: 484		Year 1: 34,320 hr; \$3,123,120 Ongoing: 1,760 hr; \$160,160	
Grand Total Average Per Entity Cost (44 TPs).				Year 1: \$70,980 Ongoing: \$3,640	

1777. In this final rule, after accounting for the adjustments and inputs noted above, updated labor costs, and reforms not being adopted, the Commission used the numbers provided in the NOPR for all reforms being adopted.

1778. Interested persons may obtain information on the reporting requirements by contacting Ellen Brown, Office of the Executive Director, Federal Energy Regulatory Commission, 888 First Street NE, Washington, DC 20426 via email (*DataClearance@ferc.gov*) or telephone ((202) 502–8663).

VI. Environmental Analysis

1779. The Commission is required to prepare an Environmental Assessment or an Environmental Impact Statement for any action that may have a significant adverse effect on the human environment.³³⁶³ We conclude that neither an Environmental Assessment nor an Environmental Impact Statement is required for this final rule under § 380.4(a)(15) of the Commission's regulations, which provides a categorical exemption for approval of

actions under sections 205 and 206 of the FPA relating to the filing of schedules containing all rates and charges for the transmission or sale of electric energy subject to the Commission's jurisdiction, plus the classification, practices, contracts, and regulations that affect rates, charges, classification, and services.³³⁶⁴

VII. Regulatory Flexibility Act

1780. The Regulatory Flexibility Act of 1980³³⁶⁵ requires a description and analysis of proposed and final rules that will have significant economic impact on a substantial number of small entities. The Small Business Administration (SBA) sets the threshold for what constitutes a small business. Under SBA's size standards,³³⁶⁶ transmission providers and RTOs/ISOs fall under the category of Electric Bulk Power Transmission and Control (North American Industry Classification System (NAICS) code 221121), that has a size threshold of under 950 employees (including the entity and its associates).³³⁶⁷

³³⁶⁴ 18 CFR 380.4(a)(15) (2022).

³³⁶⁵ 5 U.S.C. 601–612.

³³⁶⁶ 13 CFR 121.201 (2022).

³³⁶⁷ The RFA definition of “small entity” refers to the definition provided in the Small Business Act, which defines a “small business concern” as a business that is independently owned and operated and that is not dominant in its field of operation. The Small Business Administration's regulations define the threshold for a small Electric Bulk Power Transmission and Control entity (NAICS code 221121) to be 950 employees (“the maximum allowed for a concern and its affiliates to be considered small”). See 13 CFR 121.201 (2022); see also 5 U.S.C. 601(3) (citing to section 3 of the Small Business Act, 15 U.S.C. 632).

1781. We estimate that there are 44 transmission providers affected by the reforms proposed in this final rule. Furthermore, we estimate that 6 of the 44 total transmission providers, approximately 14% (rounded), are small entities.

1782. We estimate that one-time costs (in Year 1) associated with the reforms required by this final rule for one transmission provider (as shown in the table above) would be \$70,980. Following Year 1, we estimate that the annual ongoing costs for one transmission provider would be \$3,640. According to SBA guidance, the determination of significance of impact “should be seen as relative to the size of the business, the size of the competitor's business, and the impact the regulation has on larger competitors.”³³⁶⁸ We do not consider the estimated cost to be a significant economic impact. As a result, we certify that the reforms proposed in this final rule would not have a significant economic impact on a substantial number of small entities.

VIII. Document Availability

1783. In addition to publishing the full text of this document in the **Federal Register**, the Commission provides all interested persons an opportunity to view and/or print the contents of this document via the internet through the

³³⁶⁸ U.S. Small Business Administration, *A Guide for Government Agencies How to Comply with the Regulatory Flexibility Act*, at 18 (Aug. 2017), <https://cdn.advocacy.sba.gov/wp-content/uploads/2019/06/21110349/How-to-Comply-with-the-RFA.pdf>.

³³⁶¹ Commission staff estimate that respondents' hourly wages plus benefits are comparable to those of FERC employees. Therefore, the hourly cost used in this analysis is \$91 per hour (\$188,922 per year).

³³⁶² Commission staff only estimates the information collection burden associated with the requirements outlined in the final rule and does not estimate the potential appeal process burden, which an applicant can pursue voluntarily.

³³⁶³ *Regulations Implementing the National Environmental Policy Act*, Order No. 486, 52 FR 47897 (Dec. 17, 1987), FERC Stats. & Regs. Preambles 1986–1990 ¶ 30,783 (1987) (cross-referenced at 41 FERC ¶ 61,284).

Commission's Home Page (<https://www.ferc.gov>).

1784. From the Commission's Home Page on the internet, this information is available on eLibrary. The full text of this document is available on eLibrary in PDF and Microsoft Word format for viewing, printing, and/or downloading. To access this document in eLibrary, type the docket number in the docket number field. User assistance is available for eLibrary and the Commission's website during normal business hours from the Commission's Online Support at (202) 502-6652 (toll free at 1-866-208-3676) or email at ferconlinesupport@ferc.gov, or the Public Reference Room at (202) 502-8371, TTY (202) 502-8659. Email the Public Reference Room at public.referenceroom@ferc.gov.

IX. Effective Date and Congressional Notification

1785. The final rule is effective November 6, 2023. The Commission has determined, with the concurrence of the Administrator of the Office of Information and Regulatory Affairs of

OMB, that this rule is a "major rule" as defined in section 351 of the Small Business Regulatory Enforcement Fairness Act of 1996.

List of Subjects in 18 CFR Part 35

Electric power rates, Electric utilities, Reporting and recordkeeping requirements.

By the Commission. Commissioner Danly is concurring with a separate statement attached.

Commissioner Clements is concurring with a separate statement attached.

Commissioner Christie is concurring with a separate statement attached.

Issued: July 28, 2023.

Kimberly D. Bose,
Secretary.

In consideration of the foregoing, the Commission amends part 35, chapter I, title 18, Code of Federal Regulations, as follows:

PART 35—FILING OF RATE SCHEDULES AND TARIFFS

■ 1. The authority citation for part 35 continues to read as follows:

Authority: 16 U.S.C. 791a–825r, 2601–2645; 31 U.S.C. 9701; 42 U.S.C. 7101–7352.

■ 2. Amend § 35.28 by adding paragraph (f)(1)(ii) to read as follows:

§ 35.28 Non-discriminatory open access transmission tariff.

* * * * *

(f) * * *

(1) * * *

(ii) Any public utility that conducts interconnection studies shall be liable for and eligible to appeal certain penalties under the interconnection procedures and agreements adopted by the Commission-approved independent system operator or regional transmission organization under paragraph (f)(1) of this section following that public utility's failure to complete an interconnection study by the appropriate deadline.

* * * * *

NOTE: The following appendices will not appear in the Code of Federal Regulations.

Appendix A: Abbreviated Names of Commenters

Americans for a Clean Energy Grid	ACEG.
Alliance for Clean Energy-New York	ACE-NY.
American Council on Renewable Energy	ACORE.
Associated Electric Cooperative, Inc.	AECI.
Advanced Energy Economy	AEE.
American Electric Power Service Corporation	AEP.
AES Clean Energy Development, LLC	AES.
Acciona Energy USA Global LLC; Copenhagen Infrastructure IV K/S; Hecate Energy LLC; Leeward Renewable Energy Development, LLC; and Tri Global Energy, LLC.	Affected Interconnection Customers.
Allen Meyer	Allen Meyer.
Alliant Energy Corporate Services, Inc.	Alliant Energy.
Amazon Energy LLC	Amazon.
Ameren Services Company	Ameren.
Ampjack Industries Ltd	Ampjack.
Anbaric Development Partners, LLC	Anbaric.
American Public Power Association and Large Public Power Council	APPA-LPPC.
Apple Inc	Apple.
Arizona Public Service Company	APS.
Arizona Corporation Commission	Arizona Commission.
Avangrid, Inc.	Avangrid.
Bonneville Power Administration	Bonneville.
Bretton C Little	Bretton C Little.
California Independent System Operator Corporation	CAISO.
California Energy Storage Alliance	CESA.
The American Clean Power Association and RENEW Northeast	Clean Energy Associations.
Clean Energy Buyers Association	Clean Energy Buyers.
Clean Energy States Alliance	Clean Energy States.
ClearPath, Inc.	ClearPath.
Colorado Public Utilities Commission	Colorado Commission.
Interconnection Cost Consumer Protection Coalition	Consumer Protection Coalition.
Consumers Energy Company	Consumers Energy.
Community Renewable Energy Association and NewSun Energy LLC	CREA and NewSun.
CTC Global Corporation	CTC Global.
Cypress Creek Renewables, LLC	Cypress Creek.
Dominion Energy Services, Inc.	Dominion.
Duke Energy Carolinas, LLC; Duke Energy Progress, LLC; and Duke Energy Florida, LLC	Duke Southeast Utilities.
Duke Energy Carolinas, LLC; Duke Energy Progress, LLC; Dominion Energy South Carolina Inc.; PacifiCorp; Public Service Company of Colorado; and Tri-State Generation and Transmission Association, Inc.	Early Adopters Coalition.
Environmental Defense Fund	Environmental Defense Fund.
EDF Renewables LLC	EDF Renewables.
Edison Electric Institute	EEl.
El Paso Electric Company	El Paso Electric.
Electricity Consumers Resource Council	ELCON.
Elevate Renewable Energy F7, LLC	Elevate.
North American Electric Reliability Corporation; Midwest Reliability Organization; Northeast Power Coordinating Council, Inc.; ReliabilityFirst Corporation; SERC Reliability Corporation; Texas Reliability Entity, Inc.; and Western Electricity Coordinating Council.	NERC.
Enel North America, Inc.	Enel.

Energy Keepers, Inc.	Energy Keepers.
ENGIE North America, Inc.	ENGIE.
Electric Power Research Institute	EPRI.
Electric Power Supply Association	EPSA.
Equinor Wind US LLC	Equinor Wind.
Evergreen Action	Evergreen Action.
Eversource Energy Service Company	Eversource.
Fervo Energy Company	Fervo Energy.
Golden State Clean Energy	GCSE.
Google LLC	Google.
Guzman Energy LLC	Guzman Energy.
Hannon Armstrong Sustainable Infrastructure Capital, Inc.	Hannon Armstrong.
Rye Development, LLC; rPlus Hydro, LLP; Nelson Energy LLC; Advanced Hydro Solutions LLC; Hydro Green Energy, LLC; Natel Energy, Inc.; and Sorenson Engineering, Inc. and its affiliates, Cat Creek Energy, LLC and National Hydropower Association.	Hydropower Commenters.
Idaho Power Company	Idaho Power.
Illinois Commerce Commission	Illinois Commission.
Citizens Utility Board of Illinois	Illinois CUB.
Indicated PJM Transmission Owners	Indicated PJM TOs.
4,293 people collected Evergreen Action	Individual Signatories.
Interwest Energy Alliance	Interwest.
Invenergy Solar Development North America LLC; Invenergy Thermal Development LLC; Invenergy Wind Development North America LLC; and Invenergy Transmission LLC.	Invenergy.
Iowa Utilities Board	Iowa Commission.
Interstate Renewable Energy Council	IREC.
ISO New England Inc.	ISO-NE.
ISO/RTO Council	ISO/RTO Council.
Los Angeles Department of Water and Power	LADWP.
Longroad Energy Holdings, LLC	Longroad Energy.
Lori Ecker	Lori Ecker.
Microgrid Resources Coalition	Microgrid Resources.
Midcontinent Independent System Operator, Inc.	MISO.
MISO Transmission Owners	MISO TOs.
National Association of Regulatory Utility Commissioners	NARUC.
National Grid Plc	National Grid.
New England Power Pool Participants Committee	NEPOOL.
New England States Committee on Electricity	NESCOE.
New Jersey Board of Public Utilities	New Jersey Commission.
New York State Department of State Utility Intervention Unit	New York State Department.
NextEra Energy, Inc.	NextEra.
North Carolina Utilities Commission and North Carolina Utilities Commission Public Staff	North Carolina Commission and Staff.
North Dakota Public Service Commission	North Dakota Commission.
Northwest & Intermountain Power Producers Coalition	Northwest and Intermountain.
National Rural Electric Cooperative Association	NRECA.
Navajo Tribal Utility Authority	Navajo Utility.
Nevada Power Company and Sierra Pacific Power Company	NV Energy.
New York Public Service Commission and New York State Energy Research and Development Authority	NY Commission and NYSERDA.
New York Transmission Owners	NYTOs.
New York Independent System Operator, Inc.	NYISO.
Public Commission of Ohio's Office of the Federal Energy Advocate	Ohio Commission Consumer Advocate.
Omaha Public Power District	Omaha Public Power.
Organization of MISO States, Inc.	OMS.
Ørsted North America, Inc.	Ørsted.
OCETI Sakowin Power Authority	OSPA.
Renewable Northwest and NW Energy Coalition	Pacific Northwest Organizations.
Avista Corporation; Idaho Power Company; Portland General Electric Company; and Puget Sound Energy, Inc.	Pacific Northwest Utilities.
PacifiCorp	PacifiCorp.
Pattern Energy Group LP	Pattern Energy.
Payton Alaama	Payton Alaama.
Pennsylvania Public Utility Commission	Pennsylvania Commission.
Pacific Gas and Electric Company	PG&E.
Pine Gate Renewables, LLC	Pine Gate.
PJM Interconnection, L.L.C.	PJM.
PJM Cities and Communities Coalition	PJM Coalition.
Organization of PJM States, Inc.	OPSI.
PPL Electric Utilities Corporation	PPL.
Puget Sound Energy, Inc.	Puget Sound.
Sustainable FERC Project, Sierra Club, Natural Resources Defense Council, Earthjustice, Acadia Center, Environmental Defense Fund, National Audubon Society, Southern Environmental Law Center, and Southface.	Public Interest Organizations.
R Street Institute	R Street.
Rick K. Lathrop	Rick K Lathrop.
Roy J Shanker Ph.D.	Roy J Shanker.
rPlus Hydro, LLLP	rPlus.
RWE Renewables Americas, LLC	RWE Renewables.
San Diego Gas & Electric Company	SDG&E.
Solar Energy Industries Association	SEIA.
U.S. Senators John D. Hickenlooper and Angus King	Senators Hickenlooper and King.
Shell Energy North America	Shell.
Southern California Edison Company	SoCal Edison.
Southern Company Services, Inc.	Southern.
Southwest Power Pool, Inc.	SPP.
Connecticut Department of Energy and Environmental Protection, Connecticut Attorney General, Connecticut Office of Consumer Counsel, Delaware Attorney General, Delaware Division of the Public Advocate, Attorney General for the District of Columbia, District of Columbia Office of People's Counsel, Attorney General of Maryland, Maryland Office of People's Counsel, Massachusetts Attorney General, Pennsylvania Office of Consumer Advocate, and the Rhode Island Attorney General.	State Agencies.

Sue Hilton	Sue Hilton.
Transmission Access Policy Study Group	TAPS.
Tesla, Inc.	Tesla.
Tri-State Generation and Transmission Association, Inc	Tri-State.
Uda Law Firm, P.C	Uda Law Firm.
Utah Municipal Power Agency	UMPA.
Union of Concerned Scientists	Union of Concerned Scientists.
U.S. Chamber of Commerce	U.S. Chamber of Commerce.
United States Department of Energy	U.S. DOE.
VEIR Inc	VEIR.
Vermont Electric Power Company, Inc.	Vermont Electric and Vermont Transco.
Vistra Corp.	Vistra.
Western Area Power Administration	WAPA.
WATT Coalition	WATT Coalition.
Colorado Public Utilities Commission Chair Megan Decker, Oregon Public Utility Commission Chair Cynthia Hall, New Mexico Public Regulation Commission Chair Cynthia Hall and Vice-Chair Joe Maestas, Arizona Corporation Commission Chair Lea Marquez Peterson, Nevada Public Utilities Commission Chair Hayley Williamson, California Public Utilities Commission Commissioner Cliff Rechtschaffen, and Washington Utilities and Transportation Commission Commissioner Ann Rendahl.	Western Regulators.
WIRES	WIRES.
Xcel Energy Services Inc.	Xcel.

Appendix B: Interconnection Study Metrics

TABLE 2—RTOS/ISOS INTERCONNECTION STUDY METRICS 2022 ¹

Transmission provider	Completed studies	Studies completed past deadline	Delayed studies at end of year	Withdrawals	Withdrawn pre-study
CAISO	340	340		108	1
ISO-NE	51	46	23	24	8
MISO	609	597	285	49	0
NYISO	84	72	25	34	28
PJM ²	153	152	2,211	240	137

¹ We do not include data from SPP in this table. SPP is transitioning to a new interconnection study process and thus its data is not clearly comparable to the other RTOs/ISOs.

² Data drawn from the following sources, respectively: http://www.caiso.com/Documents/FERC845_InterconnectionStudyStatistics.pdf (CAISO); <https://cdn.misoenergy.org/MISO%20Generator%20Interconnection%20Study%20Metrics%20Q1%202023444684.pdf> (MISO); <https://www.oasis.oati.com/isne/> (ISO-NE); <https://www.nyiso.com/interconnections> (NYISO); and <https://www.pjm.com/-/media/planning/services-requests/interconnection-study-statistics.ashx> (PJM).

TABLE 3—NON-RTOS/ISOS INTERCONNECTION STUDY METRICS 2022 ³

Transmission provider	Completed studies	Completed past deadline	Delayed studies at end of year	Withdrawals	Withdrawn pre-study
Alabama Power Company (Southern Company)	148	0	0	45	5
Arizona Public Service	40	40	106	12	5
Avista Corp	14	5	1	11	3
Black Hills Colorado	4	0	5	0	0
Black Hills Power	7	1	4	1	0
Cheyenne Light, Fuel, and Power Co	4	0	2	0	0
Deseret Generation and Transmission Coop	4	0	0	0	0
Dominion Energy South Carolina	2	2	0	23	21
Duke Energy Carolinas	1	1	0	4	0
El Paso Electric Co	6	2	0	7	1
Florida Power & Light	60	43	78	0	0
GridLiance	1	0	0	0	0
Idaho Power	98	20	7	15	5
Louisville Gas and Electric	18	16	15	2	1
Nevada Power	103	0	0	15	4
Northwestern Corp (Montana)	33	14	4	10	2
PacifiCorp	202	0	0	41	7
Portland General Electric Company	10	9	9	0	0
Public Service Company of Colorado	41	39	28	12	1
Public Service Company of New Mexico	21	21	29	8	0
Puget Sound Energy	50	37	6	6	2
Tampa Electric Company	25	13	1	4	2
Tri-State Generation and Transmission	30	0	0	11	10
Tucson Electric Power Co. ⁴	20	20	0	3	2

³ This table excludes the following non-RTO/ISO transmission providers that did not report any completed or ongoing interconnection studies for 2022: Basin Electric Power Coop.; Cube Yadkin Transmission, LLC; Golden Spread Coop; Gulf Power Company; MATL LLP; UNS Electric, Inc.; and Versant Power.

⁴ Data drawn from the following sources, respectively: <https://www.oasis.oati.com/SOCO/index.html> (Alabama Power Company (Southern Company)); <https://www.oasis.oati.com/azps/> (Arizona Public Service); <https://www.oasis.oati.com/avat/> (Avista Corp.); <https://www.blackhillscorp.com/utilities-businesses/transmission/electric-transmission-services> (Black Hills Colorado); <https://www.blackhillscorp.com/utilities-businesses/transmission/electric-transmission-services> (Black Hills Power); <http://www.oatioasis.com/CLPT/index.html> (Cheyenne Light, Fuel, and Power Co.); <https://www.oasis.oati.com/dgt/index.html> (Deseret Generation and Transmission Coop.); <https://www.oasis.oati.com/SCEG/> (Dominion Energy South Carolina); <http://www.oasis.oati.com/duk/index.html> (Duke Energy Carolinas); <https://www.oasis.oati.com/epe/index.html> (El Paso Electric Co.); <https://www.oasis.oati.com/FPL/index.html> (Florida Power & Light); <https://www.oasis.oati.com/SMCN/index.html> (GridLiance); <https://www.oasis.oati.com/ipco/> (Idaho Power); <https://www.oasis.oati.com/LGEE/index.html> (Louisville Gas and Electric); <http://www.oasis.oati.com/NEVP/> (Nevada Power); <http://www.oatioasis.com/NWMT/> (Northwestern Corp (Montana)); <https://www.oasis.oati.com/PPW/> (PacifiCorp); <https://www.oasis.oati.com/PGE/> (Portland General Electric Company); <https://www.oasis.oati.com/psco/index.html> (Public Service Company of Colorado); <https://www.oasis.oati.com/PNM/> (Public Service Company of New Mexico); <https://www.oasis.oati.com/psei/index.html> (Puget Sound Energy); <https://www.oasis.oati.com/TEC/> (Tampa Electric Company); <https://www.oasis.oati.com/tsgt/index.html> (Tri-State Generation and Transmission); and <https://www.oasis.oati.com/tepc/> (Tucson Electric Power Co.).

TABLE 4—RTO/ISO END OF YEAR DELAYED INTERCONNECTION STUDIES⁵

Transmission provider	Delayed studies at end of 2020	Delayed studies at end of 2021	Delayed studies at end of 2022
CAISO			
ISO-NE	12	19	23
MISO	479	385	285
NYISO	26	48	25
PJM	272	1,281	2,211

⁵ We do not include data from SPP in this table. SPP is transitioning to a new interconnection study process and thus its data is not clearly comparable to the other RTOs/ISOs.

TABLE 5—NON-RTO/ISO END OF YEAR DELAYED INTERCONNECTION STUDIES

Transmission provider	Delayed studies at end of 2020	Delayed studies at end of 2021	Delayed studies at end of 2022
Alabama Power Company (Southern Company)	0	0	0
Arizona Public Service	29	55	106
Avista Corp	2	7	1
Black Hills Colorado	0	0	5
Black Hills Power	0	0	4
Cheyenne Light, Fuel, and Power Co	0	0	2
Deseret Generation and Transmission Coop	0	0	0
Dominion Energy South Carolina	16	19	0
Duke Energy Carolinas	6	1	0
El Paso Electric Co	1	0	0
Florida Power & Light	48	21	78
GridLiance	0	0	0
Gulf Power Co	13	12	.....
Idaho Power	0	0	7
Louisville Gas and Electric	3	12	15
Nevada Power	0	0	0
Northwestern Corp (Montana)	2	1	4
PacifiCorp	0	0	0
Portland General Electric Company	2	0	9
Public Service Company of Colorado	0	0	28
Public Service Company of New Mexico	20	17	29
Puget Sound Energy	0	2	6
Tampa Electric Company	16	5	1
Tri-State Generation and Transmission	28	0	0
Tucson Electric Power Co	2	1	0

Appendix C: Pro forma LGIP

Note: Deletions are in brackets and additions are in italics.

Section 1. Definitions

Adverse System Impact shall mean the negative effects due to technical or operational limits on conductors or equipment being exceeded that may compromise the safety and reliability of the electric system.

Affected System shall mean an electric system other than [the] Transmission

Provider's Transmission System that may be affected by the proposed interconnection.

Affected System Facilities Construction Agreement shall mean the agreement contained in Appendix 11 to this LGIP that is made between Transmission Provider and Affected System Interconnection Customer to facilitate the construction of and to set forth cost responsibility for necessary Affected System Network Upgrades on Transmission Provider's Transmission System.

Affected System Interconnection Customer shall mean any entity that submits an interconnection request for a generating facility to a transmission system other than

Transmission Provider's Transmission System that may cause the need for Affected System Network Upgrades on the Transmission Provider's Transmission System.

Affected System Network Upgrades shall mean the additions, modifications, and upgrades to Transmission Provider's Transmission System required to accommodate Affected System Interconnection Customer's proposed interconnection to a transmission system other than Transmission Provider's Transmission System.

Affected System Operator shall mean the entity that operates an Affected System.

Affected System Queue Position shall mean the queue position of an Affected System Interconnection Customer in Transmission Provider's interconnection queue relative to Transmission Provider's Interconnection Customers' Queue Positions.

Affected System Study shall mean the evaluation of Affected System Interconnection Customers' proposed interconnection(s) to a transmission system other than Transmission Provider's Transmission System that have an impact on Transmission Provider's Transmission System, as described in Section 9 of this LGIP.

Affected System Study Agreement shall mean the agreement contained in Appendix 9 to this LGIP that is made between Transmission Provider and Affected System Interconnection Customer to conduct an Affected System Study pursuant to Section 9 of this LGIP.

Affected System Study Report shall mean the report issued following completion of an Affected System Study pursuant to Section 9.6 of this LGIP.

Affiliate shall mean, with respect to a corporation, partnership or other entity, each such other corporation, partnership or other entity that directly or indirectly, through one or more intermediaries, controls, is controlled by, or is under common control with, such corporation, partnership or other entity.

Ancillary Services shall mean those services that are necessary to support the transmission of capacity and energy from resources to loads while maintaining reliable operation of the Transmission Provider's Transmission System in accordance with Good Utility Practice.

Applicable Laws and Regulations shall mean all duly promulgated applicable federal, state and local laws, regulations, rules, ordinances, codes, decrees, judgments, directives, or judicial or administrative orders, permits and other duly authorized actions of any Governmental Authority.

[Applicable Reliability Council shall mean the reliability council applicable to the Transmission System to which the Generating Facility is directly interconnected.]

Applicable Reliability Standards shall mean the requirements and guidelines of [NERC,] the [Applicable Reliability Council] *Electric Reliability Organization* and the [Control Area] *Balancing Authority Area* of the Transmission System to which the Generating Facility is directly interconnected.

Balancing Authority shall mean an entity that integrates resource plans ahead of time, maintains demand and resource balance within a Balancing Authority Area, and supports interconnection frequency in real time.

Balancing Authority Area shall mean the collection of generation, transmission, and loads within the metered boundaries of the Balancing Authority. The Balancing Authority maintains load-resource balance within this area.

Base Case shall mean the base case power flow, short circuit, and stability data bases

used for the Interconnection Studies by [the] Transmission Provider or Interconnection Customer.

Breach shall mean the failure of a Party to perform or observe any material term or condition of the Standard Large Generator Interconnection Agreement.

Breaching Party shall mean a Party that is in Breach of the Standard Large Generator Interconnection Agreement.

Business Day shall mean Monday through Friday, excluding Federal Holidays.

Calendar Day shall mean any day including Saturday, Sunday or a Federal Holiday.

Cluster shall mean a group of one or more Interconnection Requests that are studied together for the purpose of conducting a Cluster Study.

Cluster Request Window shall mean the time period set forth in Section 3.4.1 of this LGIP.

Cluster Restudy shall mean a restudy of a Cluster Study conducted pursuant to Section 7.5 of this LGIP.

Cluster Restudy Report Meeting shall mean the meeting held to discuss the results of a Cluster Restudy pursuant to Section 7.5 of this LGIP.

Cluster Restudy Report shall mean the report issued following completion of a Cluster Restudy pursuant to Section 7.5 of this LGIP.

Cluster Study shall mean the evaluation of one or more Interconnection Requests within a Cluster as described in Section 7 of this LGIP.

Cluster Study Agreement shall mean the agreement contained in Appendix 2 to this LGIP for conducting the Cluster Study.

Cluster Study Process shall mean the following processes, conducted in sequence: the Cluster Request Window; the Customer Engagement Window and Scoping Meetings therein; the Cluster Study; any needed Cluster Restudies; and the Interconnection Facilities Study.

Cluster Study Report shall mean the report issued following completion of a Cluster Study pursuant to Section 7 of this LGIP.

Cluster Study Report Meeting shall mean the meeting held to discuss the results of a Cluster Study pursuant to Section 7 of this LGIP.

Clustering shall mean the process whereby one or more [a group of] Interconnection Requests [is] are studied together, instead of serially, [for the purpose of conducting the Interconnection System Impact Study] as described in Section 7 of this LGIP.

Commercial Operation shall mean the status of a Generating Facility that has commenced generating electricity for sale, excluding electricity generated during Trial Operation.

Commercial Operation Date of a unit shall mean the date on which the Generating Facility commences Commercial Operation as agreed to by the Parties pursuant to Appendix E to the Standard Large Generator Interconnection Agreement.

Commercial Readiness Deposit shall mean a deposit paid as set forth in Sections 3.4.2, 7.5, and 8.1 of this LGIP.

Confidential Information shall mean any confidential, proprietary or trade secret

information of a plan, specification, pattern, procedure, design, device, list, concept, policy or compilation relating to the present or planned business of a Party, which is designated as confidential by the Party supplying the information, whether conveyed orally, electronically, in writing, through inspection, or otherwise.

Contingent Facilities shall mean those unbuilt Interconnection Facilities and Network Upgrades upon which the Interconnection Request's costs, timing, and study findings are dependent, and if delayed or not built, could cause a need for [Restudies] restudies of the Interconnection Request or a reassessment of the Interconnection Facilities and/or Network Upgrades and/or costs and timing.

[Control Area shall mean an electrical system or systems bounded by interconnection metering and telemetry, capable of controlling generation to maintain its interchange schedule with other Control Areas and contributing to frequency regulation of the interconnection. A Control Area must be certified by an Applicable Reliability Council.]

Customer Engagement Window shall mean the time period set forth in Section 3.4.5 of this LGIP.

Default shall mean the failure of a Breaching Party to cure its Breach in accordance with Article 17 of the Standard Large Generator Interconnection Agreement.

Dispute Resolution shall mean the procedure for resolution of a dispute between the Parties in which they will first attempt to resolve the dispute on an informal basis.

Distribution System shall mean the Transmission Provider's facilities and equipment used to transmit electricity to ultimate usage points such as homes and industries directly from nearby generators or from interchanges with higher voltage transmission networks which transport bulk power over longer distances. The voltage levels at which distribution systems operate differ among areas.

Distribution Upgrades shall mean the additions, modifications, and upgrades to the Transmission Provider's Distribution System at or beyond the Point of Interconnection to facilitate interconnection of the Generating Facility and render the transmission service necessary to effect Interconnection Customer's wholesale sale of electricity in interstate commerce. Distribution Upgrades do not include Interconnection Facilities.

Effective Date shall mean the date on which the Standard Large Generator Interconnection Agreement becomes effective upon execution by the Parties subject to acceptance by FERC, or if filed unexecuted, upon the date specified by FERC.

Electric Reliability Organization shall mean the North American Electric Reliability Corporation or its successor organization.

Emergency Condition shall mean a condition or situation: (1) that in the judgment of the Party making the claim is imminently likely to endanger life or property; or (2) that, in the case of a Transmission Provider, is imminently likely (as determined in a non-discriminatory manner) to cause a material adverse effect on the security of, or damage to Transmission

Provider's Transmission System, Transmission Provider's Interconnection Facilities or the electric systems of others to which the Transmission Provider's Transmission System is directly connected; or (3) that, in the case of Interconnection Customer, is imminently likely (as determined in a non-discriminatory manner) to cause a material adverse effect on the security of, or damage to, the Generating Facility or Interconnection Customer's Interconnection Facilities. System restoration and black start shall be considered Emergency Conditions; provided that Interconnection Customer is not obligated by the Standard Large Generator Interconnection Agreement to possess black start capability.

Energy Resource Interconnection Service shall mean an Interconnection Service that allows the Interconnection Customer to connect its Generating Facility to the Transmission Provider's Transmission System to be eligible to deliver the Generating Facility's electric output using the existing firm or nonfirm capacity of the Transmission Provider's Transmission System on an as available basis. Energy Resource Interconnection Service in and of itself does not convey transmission service.

Engineering & Procurement (E&P) Agreement shall mean an agreement that authorizes the Transmission Provider to begin engineering and procurement of long lead-time items necessary for the establishment of the interconnection in order to advance the implementation of the Interconnection Request.

Environmental Law shall mean Applicable Laws or Regulations relating to pollution or protection of the environment or natural resources.

Federal Power Act shall mean the Federal Power Act, as amended, 16 U.S.C. §§791a *et seq.*

FERC shall mean the Federal Energy Regulatory Commission (Commission) or its successor.

Force Majeure shall mean any act of God, labor disturbance, act of the public enemy, war, insurrection, riot, fire, storm or flood, explosion, breakage or accident to machinery or equipment, any order, regulation or restriction imposed by governmental, military or lawfully established civilian authorities, or any other cause beyond a Party's control. A Force Majeure event does not include acts of negligence or intentional wrongdoing by the Party claiming Force Majeure.

Generating Facility shall mean Interconnection Customer's [device] *device(s)* for the production and/or storage for later injection of electricity identified in the Interconnection Request, but shall not include [the] Interconnection Customer's Interconnection Facilities.

Generating Facility Capacity shall mean the net capacity of the Generating Facility [and] or the aggregate net capacity of the Generating Facility where it includes [multiple energy production devices] *more than one device for the production and/or storage for later injection of electricity.*

Good Utility Practice shall mean any of the practices, methods and acts engaged in or approved by a significant portion of the

electric industry during the relevant time period, or any of the practices, methods and acts which, in the exercise of reasonable judgment in light of the facts known at the time the decision was made, could have been expected to accomplish the desired result at a reasonable cost consistent with good business practices, reliability, safety and expedition. Good Utility Practice is not intended to be limited to the optimum practice, method, or act to the exclusion of all others, but rather to be acceptable practices, methods, or acts generally accepted in the region.

Governmental Authority shall mean any federal, state, local or other governmental regulatory or administrative agency, court, commission, department, board, or other governmental subdivision, legislature, rulemaking board, tribunal, or other governmental authority having jurisdiction over the Parties, their respective facilities, or the respective services they provide, and exercising or entitled to exercise any administrative, executive, police, or taxing authority or power; provided, however, that such term does not include Interconnection Customer, Transmission Provider, or any Affiliate thereof.

Hazardous Substances shall mean any chemicals, materials or substances defined as or included in the definition of "hazardous substances," "hazardous wastes," "hazardous materials," "hazardous constituents," "restricted hazardous materials," "extremely hazardous substances," "toxic substances," "radioactive substances," "contaminants," "pollutants," "toxic pollutants" or words of similar meaning and regulatory effect under any applicable Environmental Law, or any other chemical, material or substance, exposure to which is prohibited, limited or regulated by any applicable Environmental Law.

Initial Synchronization Date shall mean the date upon which the Generating Facility is initially synchronized and upon which Trial Operation begins.

In-Service Date shall mean the date upon which the Interconnection Customer reasonably expects it will be ready to begin use of the Transmission Provider's Interconnection Facilities to obtain back feed power.

Interconnection Customer shall mean any entity, including the Transmission Provider, Transmission Owner or any of the Affiliates or subsidiaries of either, that proposes to interconnect its Generating Facility with the Transmission Provider's Transmission System.

Interconnection Customer's Interconnection Facilities shall mean all facilities and equipment, as identified in Appendix A of the Standard Large Generator Interconnection Agreement, that are located between the Generating Facility and the Point of Change of Ownership, including any modification, addition, or upgrades to such facilities and equipment necessary to physically and electrically interconnect the Generating Facility to [the] Transmission Provider's Transmission System. Interconnection Customer's Interconnection Facilities are sole use facilities.

Interconnection Facilities shall mean [the] Transmission Provider's Interconnection

Facilities and [the] Interconnection Customer's Interconnection Facilities. Collectively, Interconnection Facilities include all facilities and equipment between the Generating Facility and the Point of Interconnection, including any modification, additions or upgrades that are necessary to physically and electrically interconnect the Generating Facility to [the] Transmission Provider's Transmission System. Interconnection Facilities are sole use facilities and shall not include Distribution Upgrades, Stand Alone Network Upgrades or Network Upgrades.

Interconnection Facilities Study shall mean a study conducted by [the] Transmission Provider or a third party consultant for [the] Interconnection Customer to determine a list of facilities (including Transmission Provider's Interconnection Facilities and Network Upgrades as identified in the [Interconnection System Impact] *Cluster Study*), the cost of those facilities, and the time required to interconnect the Generating Facility with [the] Transmission Provider's Transmission System. The scope of the study is defined in Section 8 of *this LGIP* [the Standard Large Generator Interconnection Procedures].

Interconnection Facilities Study Agreement shall mean the form of agreement contained in Appendix 3[4] of *this LGIP* [the Standard Large Generator Interconnection Procedures] for conducting the Interconnection Facilities Study.

Interconnection Facilities Study Report shall mean the report issued following completion of an *Interconnection Facilities Study* pursuant to Section 8 of *this LGIP*.

[Interconnection Feasibility Study shall mean a preliminary evaluation of the system impact and cost of interconnecting the Generating Facility to Transmission Provider's Transmission System, the scope of which is described in Section 6 of the Standard Large Generator Interconnection Procedures.]

[Interconnection Feasibility Study Agreement shall mean the form of agreement contained in Appendix 2 of the Standard Large Generator Interconnection Procedures for conducting the Interconnection Feasibility Study.]

Interconnection Request shall mean an Interconnection Customer's request, in the form of Appendix 1 to *this LGIP* [the Standard Large Generator Interconnection Procedures], in accordance with the Tariff, to interconnect a new Generating Facility, or to increase the capacity of, or make a Material Modification to the operating characteristics of, an existing Generating Facility that is interconnected with the Transmission Provider's Transmission System.

Interconnection Service shall mean the service provided by the Transmission Provider associated with interconnecting the Interconnection Customer's Generating Facility to the Transmission Provider's Transmission System and enabling it to receive electric energy and capacity from the Generating Facility at the Point of Interconnection, pursuant to the terms of the Standard Large Generator Interconnection Agreement and, if applicable, the Transmission Provider's Tariff.

Interconnection Study shall mean any of the following studies: [the Interconnection Feasibility Study, the Interconnection System Impact Study,] *the Cluster Study, the Cluster Restudy, the Surplus Interconnection Service System Impact Study*, and the Interconnection Facilities Study, described in *this LGIP* [the Standard Large Generator Interconnection Procedures].

[Interconnection System Impact Study shall mean an engineering study that evaluates the impact of the proposed interconnection on the safety and reliability of Transmission Provider's Transmission System and, if applicable, an Affected System. The study shall identify and detail the system impacts that would result if the Generating Facility were interconnected without project modifications or system modifications, focusing on the Adverse System Impacts identified in the Interconnection Feasibility Study, or to study potential impacts, including but not limited to those identified in the Scoping Meeting as described in the Standard Large Generator Interconnection Procedures.]

[Interconnection System Impact Study Agreement shall mean the form of agreement contained in Appendix 3 of the Standard Large Generator Interconnection Procedures for conducting the Interconnection System Impact Study.]

IRS shall mean the Internal Revenue Service.

Joint Operating Committee shall be a group made up of representatives from Interconnection Customers and the Transmission Provider to coordinate operating and technical considerations of Interconnection Service.

Large Generating Facility shall mean a Generating Facility having a Generating Facility Capacity of more than 20 MW.

LGIA Deposit shall mean the deposit Interconnection Customer submits when returning the executed LGIA, or within 10 Business Days of requesting that the LGIA be filed unexecuted at the Commission, in accordance with Section 11.3 of this LGIP.

Loss shall mean any and all losses relating to injury to or death of any person or damage to property, demand, suits, recoveries, costs and expenses, court costs, attorney fees, and all other obligations by or to third parties, arising out of or resulting from the other Party's performance, or non-performance of its obligations under the Standard Large Generator Interconnection Agreement on behalf of the [indemnifying] *Indemnifying Party*, except in cases of gross negligence or intentional wrongdoing by the [indemnifying] *Indemnifying Party*.

Material Modification shall mean those modifications that have a material impact on the cost or timing of any Interconnection Request with an equal or later *Queue Position* [queue priority date].

Metering Equipment shall mean all metering equipment installed or to be installed at the Generating Facility pursuant to the Standard Large Generator Interconnection Agreement at the metering points, including but not limited to instrument transformers, MWh-meters, data acquisition equipment, transducers, remote terminal unit, communications equipment, phone lines, and fiber optics.

Multiparty Affected System Facilities Construction Agreement shall mean the agreement contained in Appendix 12 to this LGIP that is made among Transmission Provider and multiple Affected System Interconnection Customers to facilitate the construction of and to set forth cost responsibility for necessary Affected System Network Upgrades on Transmission Provider's Transmission System.

Multiparty Affected System Study Agreement shall mean the agreement contained in Appendix 10 to this LGIP that is made among Transmission Provider and multiple Affected System Interconnection Customers to conduct an Affected System Study pursuant to Section 9 of this LGIP.

[NERC shall mean the North American Electric Reliability Council or its successor organization.]

Network Resource shall mean any designated generating resource owned, purchased, or leased by a Network Customer under the Network Integration Transmission Service Tariff. Network Resources do not include any resource, or any portion thereof, that is committed for sale to third parties or otherwise cannot be called upon to meet the Network Customer's Network Load on a non-interruptible basis.

Network Resource Interconnection Service shall mean an Interconnection Service that allows the Interconnection Customer to integrate its Large Generating Facility with the Transmission Provider's Transmission System (1) in a manner comparable to that in which the Transmission Provider integrates its generating facilities to serve native load customers; or (2) in an RTO or ISO with market based congestion management, in the same manner as Network Resources. Network Resource Interconnection Service in and of itself does not convey transmission service.

Network Upgrades shall mean the additions, modifications, and upgrades to the Transmission Provider's Transmission System required at or beyond the point at which the Interconnection Facilities connect to the Transmission Provider's Transmission System to accommodate the interconnection of the Large Generating Facility to the Transmission Provider's Transmission System.

Notice of Dispute shall mean a written notice of a dispute or claim that arises out of or in connection with the Standard Large Generator Interconnection Agreement or its performance.

Optional Interconnection Study shall mean a sensitivity analysis based on assumptions specified by the Interconnection Customer in the Optional Interconnection Study Agreement.

Optional Interconnection Study Agreement shall mean the form of agreement contained in Appendix 4[5] of *this LGIP* [the Standard Large Generator Interconnection Procedures] for conducting the Optional Interconnection Study.

Party or Parties shall mean Transmission Provider, Transmission Owner, Interconnection Customer or any combination of the above.

Permissible Technological Advancement {Transmission Provider inserts definition here.}

Point of Change of Ownership shall mean the point, as set forth in Appendix A to the Standard Large Generator Interconnection Agreement, where the Interconnection Customer's Interconnection Facilities connect to the Transmission Provider's Interconnection Facilities.

Point of Interconnection shall mean the point, as set forth in Appendix A to the Standard Large Generator Interconnection Agreement, where the Interconnection Facilities connect to the Transmission Provider's Transmission System.

Proportional Impact Method shall mean a technical analysis conducted by Transmission Provider to determine the degree to which each Generating Facility in the Cluster Study contributes to the need for a specific System Network Upgrade.

Provisional Interconnection Service shall mean Interconnection Service provided by Transmission Provider associated with interconnecting the Interconnection Customer's Generating Facility to Transmission Provider's Transmission System and enabling that Transmission System to receive electric energy and capacity from the Generating Facility at the Point of Interconnection, pursuant to the terms of the Provisional Large Generator Interconnection Agreement and, if applicable, the Tariff.

Provisional Large Generator Interconnection Agreement shall mean the interconnection agreement for Provisional Interconnection Service established between Transmission Provider and/or the Transmission Owner and the Interconnection Customer. This agreement shall take the form of the Large Generator Interconnection Agreement, modified for provisional purposes.

Queue Position shall mean the order of a valid Interconnection Request, relative to all other pending valid Interconnection Requests, [that is] established *pursuant to Section 4.1 of this LGIP*. [based upon the date and time of receipt of the valid Interconnection Request by the Transmission Provider.]

Reasonable Efforts shall mean, with respect to an action required to be attempted or taken by a Party under the Standard Large Generator Interconnection Agreement, efforts that are timely and consistent with Good Utility Practice and are otherwise substantially equivalent to those a Party would use to protect its own interests.

Scoping Meeting shall mean the meeting between representatives of [the]Interconnection Customer(s) and Transmission Provider conducted for the purpose of discussing the *proposed Interconnection Request* and any alternative interconnection options, [to]exchang[e]ing information including any transmission data and earlier study evaluations that would be reasonably expected to impact such interconnection options, *refining information and models provided by Interconnection Customer(s), discussing the Cluster Study materials posted to OASIS pursuant to Section 3.5 of this LGIP, and [to]analyz[e]ing such information*[, and to determine the potential feasible Points of Interconnection].

Site Control shall mean [documentation reasonably demonstrating]the *exclusive land*

right to develop, construct, operate, and maintain the Generating Facility over the term of expected operation of the Generating Facility. Site Control may be demonstrated by documentation establishing: (1) ownership of, a leasehold interest in, or a right to develop a site [for the purpose of constructing] of sufficient size to construct and operate the Generating Facility; (2) an option to purchase or acquire a leasehold site of sufficient size to construct and operate the Generating Facility [for such purpose]; or (3) [an exclusivity or other business relationship between] any other documentation that clearly demonstrates the right of Interconnection Customer [and the entity having the right to sell, lease or grant Interconnection Customer the right to possess or] to exclusively occupy a site [for such purpose] of sufficient size to construct and operate the Generating Facility. Transmission Provider will maintain acreage requirements for each Generating Facility type on its OASIS or public website.

Small Generating Facility shall mean a Generating Facility that has a Generating Facility Capacity of no more than 20 MW.

Stand Alone Network Upgrades shall mean Network Upgrades that are not part of an Affected System that an Interconnection Customer may construct without affecting day-to-day operations of the Transmission System during their construction and the following conditions are met: (1) a Substation Network Upgrade must only be required for a single Interconnection Customer in the Cluster and no other Interconnection Customer in that Cluster is required to interconnect to the same Substation Network Upgrades, and (2) a System Network Upgrade must only be required for a single Interconnection Customer in the Cluster, as indicated under the Transmission Provider's Proportional Impact Method. Both [the] Transmission Provider and [the] Interconnection Customer must agree as to what constitutes Stand Alone Network Upgrades and identify them in Appendix A to the Standard Large Generator Interconnection Agreement. If [the] Transmission Provider and Interconnection Customer disagree about whether a particular Network Upgrade is a Stand Alone Network Upgrade, [the] Transmission Provider must provide [the] Interconnection Customer a written technical explanation outlining why [the] Transmission Provider does not consider the Network Upgrade to be a Stand Alone Network Upgrade within 15 days of its determination.

Standard Large Generator Interconnection Agreement (LGIA) shall mean the form of interconnection agreement applicable to an Interconnection Request pertaining to a Large Generating Facility that is included in the Transmission Provider's Tariff.

Standard Large Generator Interconnection Procedures (LGIP) shall mean the interconnection procedures applicable to an Interconnection Request pertaining to a Large Generating Facility that are included in the Transmission Provider's Tariff.

Substation Network Upgrades shall mean Network Upgrades that are required at the substation located at the Point of Interconnection.

Surplus Interconnection Service shall mean any unneeded portion of Interconnection Service established in a Large Generator Interconnection Agreement, such that if Surplus Interconnection Service is utilized, the total amount of Interconnection Service at the Point of Interconnection would remain the same.

System Network Upgrades shall mean Network Upgrades that are required beyond the substation located at the Point of Interconnection.

System Protection Facilities shall mean the equipment, including necessary protection signal communications equipment, required to protect (1) the Transmission Provider's Transmission System from faults or other electrical disturbances occurring at the Generating Facility and (2) the Generating Facility from faults or other electrical system disturbances occurring on the Transmission Provider's Transmission System or on other delivery systems or other generating systems to which the Transmission Provider's Transmission System is directly connected.

Tariff shall mean the Transmission Provider's Tariff through which open access transmission service and Interconnection Service are offered, as filed with FERC, and as amended or supplemented from time to time, or any successor tariff.

Transitional Cluster Study shall mean an Interconnection Study evaluating a Cluster of Interconnection Requests during the transition to the Cluster Study Process, as set forth in Section 5.1.1.2 of this LGIP.

Transitional Cluster Study Report shall mean the report issued following completion of a Transitional Cluster Study pursuant to Section 5.1.1.2 of this LGIP.

Transitional Serial Interconnection Facilities Study shall mean an Interconnection Facilities Study evaluating an Interconnection Request on a serial basis during the transition to the Cluster Study Process, as set forth in Section 5.1.1.1 of this LGIP.

Transitional Serial Interconnection Facilities Study Report shall mean the report issued following completion of a Transitional Interconnection Facilities Study pursuant to Section 5.1.1.1 of this LGIP.

Transmission Owner shall mean an entity that owns, leases or otherwise possesses an interest in the portion of the Transmission System at the Point of Interconnection and may be a Party to the Standard Large Generator Interconnection Agreement to the extent necessary.

Transmission Provider shall mean the public utility (or its designated agent) that owns, controls, or operates transmission or distribution facilities used for the transmission of electricity in interstate commerce and provides transmission service under the Tariff. The term Transmission Provider should be read to include the Transmission Owner when the Transmission Owner is separate from the Transmission Provider.

Transmission Provider's Interconnection Facilities shall mean all facilities and equipment owned, controlled, or operated by [the] Transmission Provider from the Point of Change of Ownership to the Point of Interconnection as identified in Appendix A

to the Standard Large Generator Interconnection Agreement, including any modifications, additions or upgrades to such facilities and equipment. Transmission Provider's Interconnection Facilities are sole use facilities and shall not include Distribution Upgrades, Stand Alone Network Upgrades or Network Upgrades.

Transmission System shall mean the facilities owned, controlled or operated by the Transmission Provider or Transmission Owner that are used to provide transmission service under the Tariff.

Trial Operation shall mean the period during which Interconnection Customer is engaged in on-site test operations and commissioning of the Generating Facility prior to Commercial Operation.

Withdrawal Penalty shall mean the penalty assessed by Transmission Provider to an Interconnection Customer that chooses to withdraw or is deemed withdrawn from Transmission Provider's interconnection queue or whose Generating Facility does not otherwise reach Commercial Operation. The calculation of the Withdrawal Penalty is set forth in Section 3.7.1 of this LGIP.

Section 2. Scope and Application

2.1 Application of Standard Large Generator Interconnection Procedures

Sections 2 through 13 apply to processing an Interconnection Request pertaining to a Large Generating Facility.

2.2 Comparability

Transmission Provider shall receive, process and analyze all Interconnection Requests in a timely manner as set forth in this LGIP. Transmission Provider [will use the same Reasonable Efforts] shall process[ing] and analyze[ing] Interconnection Requests from all Interconnection Customers comparably, regardless of whether the Generating Facilities are owned by Transmission Provider, its subsidiaries or Affiliates or others.

2.3 Base Case Data

Transmission Provider shall maintain base power flow, short circuit and stability databases, including all underlying assumptions, and contingency list on either its OASIS site or a password-protected website, subject to confidentiality provisions in LGIP Section 13.1. In addition, Transmission Provider shall maintain network models and underlying assumptions on either its OASIS site or a password-protected website. Such network models and underlying assumptions should reasonably represent those used during the most recent interconnection study and be representative of current system conditions. If Transmission Provider posts this information on a password-protected website, a link to the information must be provided on Transmission Provider's OASIS site. Transmission Provider is permitted to require that Interconnection Customers, OASIS site users and password-protected website users sign a confidentiality agreement before the release of commercially sensitive information or Critical Energy Infrastructure Information in the Base Case data. Such databases and lists, hereinafter referred to as Base Cases, shall include all (1) generation projects and

(2) transmission projects, including merchant transmission projects that are proposed for the Transmission System for which a transmission expansion plan has been submitted and approved by the applicable authority.

2.4 No Applicability to Transmission Service

Nothing in this LGIP shall constitute a request for transmission service or confer upon an Interconnection Customer any right to receive transmission service.

Section 3. Interconnection Requests

3.1 [General.] Interconnection Requests

3.1.1 Study Deposits

3.1.1.1 Study Deposit

[An] Interconnection Customer shall submit to Transmission Provider, *during a Cluster Request Window*, an Interconnection Request in the form of Appendix 1 to this LGIP, an application fee of \$5,000, and a refundable study deposit of [\$10,000]:

- a. \$35,000 plus \$1,000 per MW for Interconnection Requests ≥ 20 MW < 80 MW, or;
- b. \$150,000 for Interconnection Requests ≥ 80 MW < 200 MW; or
- c. \$250,000 for Interconnection Requests ≥ 200 MW.

Transmission Provider shall apply the study deposit toward the cost of the *Cluster* [an Interconnection Feasibility] Study Process.

3.1.2 Submission

Interconnection Customer shall submit a separate Interconnection Request for each site [and may submit multiple Interconnection Requests for a single site. Interconnection Customer must submit a deposit with each Interconnection Request even when more than one request is submitted for a single site]. *Where multiple Generating Facilities share a site, Interconnection Customer(s) may submit separate Interconnection Requests or a single Interconnection Request.* An Interconnection Request to evaluate one site at two different voltage levels shall be treated as two Interconnection Requests.

At Interconnection Customer's option, Transmission Provider and Interconnection Customer will identify alternative Point(s) of Interconnection and configurations at [the] a Scoping Meeting *within the Customer Engagement Window* to evaluate in this process and attempt to eliminate alternatives in a reasonable fashion given resources and information available. Interconnection Customer will select the definitive Point[(s)] of Interconnection to be studied no later than the execution of the [Interconnection Feasibility Study Agreement.] *Cluster Study Agreement.* For purposes of clustering Interconnection Requests, Transmission Provider may propose changes to the requested Point of Interconnection to facilitate efficient interconnection of Interconnection Customers at common Point(s) of Interconnection. Transmission Provider shall notify Interconnection Customers in writing of any intended changes to the requested Point of

Interconnection within the Customer Engagement Window, and the Point of Interconnection shall only change upon mutual agreement.

Transmission Provider shall have a process in place to consider requests for Interconnection Service below the Generating Facility Capacity. These requests for Interconnection Service shall be studied at the level of Interconnection Service requested for purposes of Interconnection Facilities, Network Upgrades, and associated costs, but may be subject to other studies at the full Generating Facility Capacity to ensure safety and reliability of the system, with the study costs borne by [the] Interconnection Customer. If after the additional studies are complete, Transmission Provider determines that additional Network Upgrades are necessary, then Transmission Provider must: (1) specify which additional Network Upgrade costs are based on which studies; and (2) provide a detailed explanation of why the additional Network Upgrades are necessary. Any Interconnection Facility and/or Network Upgrade costs required for safety and reliability also would be borne by [the] Interconnection Customer. Interconnection Customers may be subject to additional control technologies as well as testing and validation of those technologies consistent with Article 6 of the LGIA. The necessary control technologies and protection systems shall be established in Appendix C of that executed, or requested to be filed unexecuted, LGIA.

Transmission Provider shall have a process in place to study Generating Facilities that include at least one electric storage resource using operating assumptions (i.e., whether the interconnecting Generating Facility will or will not charge at peak load) that reflect the proposed charging behavior of the Generating Facility as requested by Interconnection Customer, unless Transmission Provider determines that Good Utility Practice, including Applicable Reliability Standards, otherwise requires the use of different operating assumptions. If Transmission Provider finds Interconnection Customer's requested operating assumptions conflict with Good Utility Practice, Transmission Provider must provide Interconnection Customer an explanation in writing of why the submitted operating assumptions are insufficient or inappropriate by no later than thirty (30) Calendar Days before the end of the Customer Engagement Window and allow Interconnection Customer to revise and resubmit requested operating assumptions one time at least ten (10) Calendar Days prior to the end of the Customer Engagement Window. Transmission Provider shall study these requests for Interconnection Service, with the study costs borne by Interconnection Customer, using the submitted operating assumptions for purposes of Interconnection Facilities, Network Upgrades, and associated costs. These requests for Interconnection Service also may be subject to other studies at the full Generating Facility Capacity to ensure safety and reliability of the system, with the study costs borne by Interconnection Customer. Interconnection Customer's

Generating Facility may be subject to additional control technologies as well as testing and validation of such additional control technologies consistent with Article 6 of the LGIA. The necessary control technologies and protection systems shall be set forth in Appendix C of the Interconnection Customer's LGIA.

3.2 Identification of Types of Interconnection Services

At the time the Interconnection Request is submitted, Interconnection Customer must request either Energy Resource Interconnection Service or Network Resource Interconnection Service, as described; provided, however, any Interconnection Customer requesting Network Resource Interconnection Service may also request that it be concurrently studied for Energy Resource Interconnection Service, up to the point when an Interconnection Facility[y]ies Study Agreement is executed. Interconnection Customer may then elect to proceed with Network Resource Interconnection Service or to proceed under a lower level of interconnection service to the extent that only certain upgrades will be completed.

3.2.1 Energy Resource Interconnection Service

3.2.1.1 The Product

Energy Resource Interconnection Service allows Interconnection Customer to connect the Large Generating Facility to the Transmission System and be eligible to deliver the Large Generating Facility's output using the existing firm or non-firm capacity of the Transmission System on an "as available" basis. Energy Resource Interconnection Service does not in and of itself convey any right to deliver electricity to any specific customer or Point of Delivery.

3.2.1.2 The Study

The study consists of short circuit/fault duty, steady state (thermal and voltage) and stability analyses. The short circuit/fault duty analysis would identify direct Interconnection Facilities required and the Network Upgrades necessary to address short circuit issues associated with the Interconnection Facilities. The stability and steady state studies would identify necessary upgrades to allow full output of the proposed Large Generating Facility, *except for Generating Facilities that include at least one electric storage resource that request to use operating assumptions pursuant to Section 3.1.2, unless the Transmission Provider determines that Good Utility Practice, including Applicable Reliability Standards, otherwise requires the use of different operating assumptions*, and would also identify the maximum allowed output, at the time the study is performed, of the interconnecting Large Generating Facility without requiring additional Network Upgrades.

3.2.2 Network Resource Interconnection Service

3.2.2.1 The Product

Transmission Provider must conduct the necessary studies and construct the Network

Upgrades needed to integrate the Large Generating Facility (1) in a manner comparable to that in which Transmission Provider integrates its generating facilities to serve native load customers; or (2) in an ISO or RTO with market based congestion management, in the same manner as Network Resources. Network Resource Interconnection Service Allows Interconnection Customer's Large Generating Facility to be designated as a Network Resource, up to the Large Generating Facility's full output, on the same basis as existing Network Resources interconnected to Transmission Provider's Transmission System, and to be studied as a Network Resource on the assumption that such a designation will occur.

3.2.2.2 The Study

The Interconnection Study for Network Resource Interconnection Service shall assure that Interconnection Customer's Large Generating Facility meets the requirements for Network Resource Interconnection Service and as a general matter, that such Large Generating Facility's interconnection is also studied with Transmission Provider's Transmission System at peak load, under a variety of severely stressed conditions, to determine whether, with the Large Generating Facility at full output, *except for Generating Facilities that include at least one electric storage resource that request to use, and for which Transmission Provider approves, operating assumptions pursuant to Section 3.1.2*, the aggregate of generation in the local area can be delivered to the aggregate of load on Transmission Provider's Transmission System, consistent with Transmission Provider's reliability criteria and procedures. This approach assumes that some portion of existing Network Resources are displaced by the output of Interconnection Customer's Large Generating Facility. Network Resource Interconnection Service in and of itself does not convey any right to deliver electricity to any specific customer or Point of Delivery. The Transmission Provider may also study the Transmission System under non-peak load conditions. However, upon request by the Interconnection Customer, the Transmission Provider must explain in writing to the Interconnection Customer why the study of non-peak load conditions is required for reliability purposes.

3.3 Utilization of Surplus Interconnection Service

Transmission Provider must provide a process that allows an Interconnection Customer to utilize or transfer Surplus Interconnection Service at an existing Point of Interconnection. The original Interconnection Customer or one of its affiliates shall have priority to utilize Surplus Interconnection Service. If the existing Interconnection Customer or one of its affiliates does not exercise its priority, then that service may be made available to other potential Interconnection Customers.

3.3.1 Surplus Interconnection Service Request

Surplus Interconnection Service requests may be made by the existing Interconnection

Customer [whose Generating Facility is already interconnected] or one of its affiliates or may be submitted once Interconnection Customer has executed the LGIA or requested that the LGIA be filed unexecuted. Surplus Interconnection Service requests also may be made by another Interconnection Customer. Transmission Provider shall provide a process for evaluating Interconnection Requests for Surplus Interconnection Service. Studies for Surplus Interconnection Service shall consist of reactive power, short circuit/fault duty, stability analyses, and any other appropriate studies. Steady-state (thermal/voltage) analyses may be performed as necessary to ensure that all required reliability conditions are studied. If the Surplus Interconnection Service was not studied under off-peak conditions, off-peak steady state analyses shall be performed to the required level necessary to demonstrate reliable operation of the Surplus Interconnection Service. If the original system impact study report or Cluster Study Report is not available for the Surplus Interconnection Service, both off-peak and peak analysis may need to be performed for the existing Generating Facility associated with the request for Surplus Interconnection Service. The reactive power, short circuit/fault duty, stability, and steady-state analyses for Surplus Interconnection Service will identify any additional Interconnection Facilities and/or Network Upgrades necessary.

Transmission Provider shall study Surplus Interconnection Service requests for a Generating Facility that includes at least one electric storage resource using operating assumptions (i.e., whether the interconnecting Generating Facility will or will not charge at peak load) that reflect the proposed charging behavior of the Generating Facility as requested by Interconnection Customer, unless Transmission Provider determines that Good Utility Practice, including Applicable Reliability Standards, otherwise requires the use of different operating assumptions.

3.4 Valid Interconnection Request

3.4.1 Cluster Request Window

Transmission Provider shall accept Interconnection Requests during a forty-five (45) Calendar Day period (the Cluster Request Window). The initial Cluster Request Window shall open for Interconnection Requests beginning {Transmission Provider to provide number of Calendar Days} after the conclusion of the transition process set out in Section 5.1 of this LGIP and successive Cluster Request Windows shall open annually every {Transmission Provider to provide Month and Day (e.g., January 1)} thereafter.

3.4.[1]2 Initiating an Interconnection Request

An Interconnection Customer seeking to join a Cluster shall submit its Interconnection Request to Transmission Provider within, and no later than the close of, the Cluster Request Window. Interconnection Requests submitted outside of the Cluster Request Window will not be considered. To initiate an Interconnection Request, Interconnection Customer must submit all of the following:

(i) [a \$10,000 deposit,] *applicable study deposit amount, pursuant to Section 3.1.1.1 of this LGIP,*

(ii) a completed application in the form of Appendix 1, [and]

(iii) demonstration of *no less than ninety percent (90%) Site Control* or [a posting of an additional deposit of \$10,000. Such deposits shall be applied toward any Interconnection Studies, pursuant to the Interconnection Request. If Interconnection Customer demonstrates Site Control within the cure period specified in Section 3.4.3 after submitting its Interconnection Request, the additional deposit shall be refundable; otherwise, all such deposit(s), additional and initial, become non-refundable.] (1) *a signed affidavit from an officer of the company indicating that Site Control is unobtainable due to regulatory limitations as such term is defined by the Transmission Provider; and (2) documentation sufficiently describing and explaining the source and effects of such regulatory limitations, including a description of any conditions that must be met to satisfy the regulatory limitations and the anticipated time by which Interconnection Customer expects to satisfy the regulatory requirements and (3) a deposit in lieu of Site Control of \$10,000 per MW, subject to a minimum of \$500,000 and a maximum of \$2,000,000. Interconnection Requests from multiple Interconnection Customers for multiple Generating Facilities that share a site must include a contract or other agreement that allows for shared land use.*

(iv) *Generating Facility Capacity (MW) (and requested Interconnection Service level if the requested Interconnection Service is less than the Generating Facility Capacity),*

(v) *If applicable, (1) the requested operating assumptions (i.e., whether the interconnecting Generating Facility will or will not charge at peak load) to be used by Transmission Provider that reflect the proposed charging behavior of the Generating Facility that includes at least one electric storage resource, and (2) a description of any control technologies (software and/or hardware) that will limit the operation of the Generating Facility to the operating assumptions submitted by Interconnection Customer.*

(vi) *A Commercial Readiness Deposit equal to two times the study deposit described in Section 3.1.1.1 of this LGIP in the form of an irrevocable letter of credit or cash. This Commercial Readiness Deposit is refunded to Interconnection Customer according to Section 3.7 of this LGIP,*

(vii) *A Point of Interconnection, and (viii) Whether the Interconnection Request shall be studied for Network Resource Interconnection Service or for Energy Resource Interconnection Service, consistent with Section 3.2 of this LGIP.*

An Interconnection Customer that submits a deposit in lieu of Site Control due to demonstrated regulatory limitations must demonstrate that it is taking identifiable steps to secure the necessary regulatory approvals from the applicable federal, state, and/or tribal entities before execution of the Cluster Study Agreement. Such deposit will be held by Transmission Provider until

Interconnection Customer provides the required Site Control demonstration for its point in the Cluster Study Process. Interconnection Customers facing qualifying regulatory limitations must demonstrate one-hundred percent (100%) Site Control within one-hundred eighty (180) Calendar Days of the effective date of the LGIA.

Interconnection Customer shall promptly inform Transmission Provider of any material change to Interconnection Customer's demonstration of Site Control under Section 3.4.2(iii) of this LGIP. If Transmission Provider determines, based on Interconnection Customer's information, that Interconnection Customer no longer satisfies the Site Control requirement, Transmission Provider shall give Interconnection Customer ten (10) Business Days to demonstrate satisfaction with the applicable requirement subject to Transmission Provider's approval. Absent such, Transmission Provider shall deem the Interconnection Request withdrawn pursuant to Section 3.7 of this LGIP.

The expected In-Service Date of the new Large Generating Facility or increase in capacity of the existing Generating Facility shall be no more than the process window for the regional expansion planning period (or in the absence of a regional planning process, the process window for Transmission Provider's expansion planning period) not to exceed seven years from the date the Interconnection Request is received by Transmission Provider, unless Interconnection Customer demonstrates that engineering, permitting and construction of the new Large Generating Facility or increase in capacity of the existing Generating Facility will take longer than the regional expansion planning period. The In-Service Date may succeed the date the Interconnection Request is received by Transmission Provider by a period up to ten years, or longer where Interconnection Customer and Transmission Provider agree, such agreement not to be unreasonably withheld.

3.4.[2]3 Acknowledgment of Interconnection Request

Transmission Provider shall acknowledge receipt of the Interconnection Request within five (5) Business Days of receipt of the request and attach a copy of the received Interconnection Request to the acknowledgement.

3.4.[3]4 Deficiencies in Interconnection Request

An Interconnection Request will not be considered to be a valid request until all items in Section [3.4.1]3.4.2 of this LGIP have been received by Transmission Provider. If an Interconnection Request fails to meet the requirements set forth in Section [3.4.1]3.4.2 of this LGIP, Transmission Provider shall notify Interconnection Customer within five (5) Business Days of receipt of the initial Interconnection Request of the reasons for such failure and that the Interconnection Request does not constitute a valid request. Interconnection Customer shall provide Transmission Provider the additional requested information needed to constitute a valid request within ten (10) Business Days after receipt of such notice but no later than the close of the Cluster Request Window. At

any time, if Transmission Provider finds that the technical data provided by Interconnection Customer is incomplete or contains errors, Interconnection Customer and Transmission Provider shall work expeditiously and in good faith to remedy such issues. In the event that [Failure by] Interconnection Customer fails to comply with this Section 3.4.[3]4 of this LGIP, Transmission Providers shall deem the Interconnection Request withdrawn (without the cure period provided under Section 3.7 of this LGIP), the application fee is forfeited to the Transmission Provider, and the study deposit and Commercial Readiness Deposit shall be returned to Interconnection Customer [shall be treated in accordance with Section 3.7].

3.4.5 Customer Engagement Window

Upon the close of each Cluster Request Window, Transmission Provider shall open a sixty (60) Calendar Day period (Customer Engagement Window). During the Customer Engagement Window, Transmission Provider shall hold a Scoping Meeting with all interested Interconnection Customers. Notwithstanding the preceding requirements and upon written consent of all Interconnection Customers within the Cluster, Transmission Provider may shorten the Customer Engagement Window and begin the Cluster Study. Within ten (10) Business Days of the opening of the Customer Engagement Window, Transmission Provider shall post on its OASIS a list of Interconnection Requests for that Cluster. The list shall identify, for each anonymized Interconnection Request: (1) the requested amount of Interconnection Service; (2) the location by county and state; (3) the station or transmission line or lines where the interconnection will be made; (4) the projected In-Service Date; (5) the type of Interconnection Service requested; and (6) the type of Generating Facility or Facilities to be constructed, including fuel types, such as coal, natural gas, solar, or wind. The Transmission Provider must ensure that project information is anonymized and does not reveal the identity or commercial information of interconnection customers with submitted requests. During the Customer Engagement Window, Transmission Provider shall provide to Interconnection Customer a non-binding updated good faith estimate of the cost and timeframe for completing the Cluster Study and a Cluster Study Agreement to be executed prior to the close of the Customer Engagement Window.

At the end of the Customer Engagement Window, all Interconnection Requests deemed valid that have executed a Cluster Study Agreement in the form of Appendix 2 to this LGIP shall be included in the Cluster Study. Any Interconnection Requests not deemed valid at the close of the Customer Engagement Window shall be deemed withdrawn (without the cure period provided under Section 3.7 of this LGIP) by Transmission Provider, the application fee shall be forfeited to the Transmission Provider, and the Transmission Provider shall return the study deposit and Commercial Readiness Deposit to Interconnection Customer. Immediately

following the Customer Engagement Window, Transmission Provider shall initiate the Cluster Study described in Section 7 of this LGIP.

3.4.[4]6 Cluster Study Scoping Meetings

[Within ten (10) Business Days after receipt of a valid Interconnection Request] During the Customer Engagement Window, Transmission Provider shall [establish a date agreeable to] hold a Scoping Meeting with all Interconnection Customers whose valid Interconnection Requests were received in that Cluster Request Window.

The purpose of the Cluster Study Scoping Meeting shall be to discuss alternative interconnection options, to exchange information including any transmission data and earlier study evaluations that would reasonably be expected to impact such interconnection options, to discuss the Cluster Study materials posted to OASIS pursuant to Section 3.5 of this LGIP, if applicable, and to analyze such information [and to determine the potential feasible Points of Interconnection]. Transmission Provider and Interconnection Customer(s) will bring to the meeting such technical data, including, but not limited to: (i) general facility loadings, (ii) general instability issues, (iii) general short circuit issues, (iv) general voltage issues, and (v) general reliability issues as may be reasonably required to accomplish the purpose of the meeting. Transmission Provider and Interconnection Customer(s) will also bring to the meeting personnel and other resources as may be reasonably required to accomplish the purpose of the meeting in the time allocated for the meeting. On the basis of the meeting, Interconnection Customer(s) shall designate its Point of Interconnection[, pursuant to Section 6.1,] and one or more available alternative Point(s) of Interconnection. The duration of the meeting shall be sufficient to accomplish its purpose. If the Cluster Study Scoping Meeting consists of more than one Interconnection Customer, Transmission Provider shall issue, no later than fifteen (15) Business Days after the commencement of the Customer Engagement Window, and Interconnection Customer shall execute a non-disclosure agreement prior to a group Cluster Study Scoping Meeting, which will provide for confidentiality of identifying commercially sensitive information pertaining to any other Interconnection Customers.

3.5 OASIS Posting

3.5.1 OASIS Posting

Transmission Provider will maintain on its OASIS a list of all Interconnection Requests. The list will identify, for each Interconnection Request: (i) the maximum summer and winter megawatt electrical output; (ii) the location by county and state; (iii) the station or transmission line or lines where the interconnection will be made; (iv) the projected In-Service Date; (v) the status of the Interconnection Request, including Queue Position; (vi) the type of Interconnection Service being requested; and (vii) the availability of any studies related to the Interconnection Request; (viii) the date of the Interconnection Request; (ix) the type of

Generating Facility to be constructed [(combined cycle, base load or combustion turbine and fuel type)]; and (x) for Interconnection Requests that have not resulted in a completed interconnection, an explanation as to why it was not completed. Except in the case of an Affiliate, the list will not disclose the identity of Interconnection Customer until Interconnection Customer executes an LGIA or requests that Transmission Provider file an unexecuted LGIA with FERC. Before holding a Scoping Meeting with its Affiliate, Transmission Provider shall post on OASIS an advance notice of its intent to do so. Transmission Provider shall post to its OASIS site any deviations from the study timelines set forth herein. Interconnection Study reports and Optional Interconnection Study reports shall be posted to Transmission Provider's OASIS site subsequent to the meeting between Interconnection Customer and Transmission Provider to discuss the applicable study results. Transmission Provider shall also post any known deviations in the Large Generating Facility's In-Service Date.

3.5.2 Requirement To Post Interconnection Study Metrics

Transmission Provider will maintain on its OASIS or its website summary statistics related to processing Interconnection Studies pursuant to Interconnection Requests, updated quarterly. If Transmission Provider posts this information on its website, a link to the information must be provided on Transmission Provider's OASIS site. For each calendar quarter, Transmission Providers must calculate and post the information detailed in [sections] Sections 3.5.2.1 through 3.5.2.4 of this LGIP.

3.5.2.1 Interconnection [Feasibility Studies] Cluster Study Processing Time

(A) Number of Interconnection Requests that had [Interconnection Feasibility] Cluster Studies completed within Transmission Provider's coordinated region during the reporting quarter,

(B) Number of Interconnection Requests that had [Interconnection Feasibility] Cluster Studies completed within Transmission Provider's coordinated region during the reporting quarter that were completed more than [(timeline as listed in Transmission Provider's LGIP)] one hundred fifty (150) Calendar Days after [receipt by Transmission Provider of the Interconnection Customer's executed Interconnection Feasibility Study Agreement] the close of the Customer Engagement Window,

(C) At the end of the reporting quarter, the number of active valid Interconnection Requests with ongoing incomplete [Interconnection Feasibility] Cluster Studies where such Interconnection Requests had executed [Interconnection Feasibility] a Cluster Study Agreement[s] received by Transmission Provider more than [(timeline as listed in Transmission Provider's LGIP)] one hundred fifty (150) Calendar Days before the reporting quarter end,

(D) Mean time (in days), [Interconnection Feasibility] Cluster Studies completed within Transmission Provider's coordinated region during the reporting quarter, from the [date when Transmission Provider received the

executed Interconnection Feasibility Study Agreement] commencement of the Cluster Study to the date when Transmission Provider provided the completed [Interconnection Feasibility] Cluster Study Report to [the] Interconnection Customer,

(E) Mean time (in days), Cluster Studies were completed within Transmission Provider's coordinated region during the reporting quarter, from the close of the Cluster Request Window to the date when Transmission Provider provided the completed Cluster Study Report to Interconnection Customer.

[(E)](F) Percentage of [Interconnection Feasibility] Cluster Studies exceeding [(timeline as listed in Transmission Provider's LGIP)] one hundred fifty (150) Calendar Days to complete this reporting quarter, calculated as the sum of 3.5.2.1(B) plus 3.5.2.1(C) divided by the sum of 3.5.2.1(A) plus 3.5.2.1(C)].

3.5.2.2 [Interconnection System Impact Studies] Cluster Restudies Processing Time

(A) Number of Interconnection Requests that had [Interconnection System Impact Studies] Cluster Restudies completed within Transmission Provider's coordinated region during the reporting quarter,

(B) Number of Interconnection Requests that had [Interconnection System Impact Studies] Cluster Restudies completed within Transmission Provider's coordinated region during the reporting quarter that were completed more than [(timeline as listed in Transmission Provider's LGIP)] one hundred fifty (150) Calendar Days after [receipt by] Transmission Provider notifies Interconnection Customers in the Cluster that a Cluster Restudy is required pursuant to Section 7.5(4) of this LGIP [of the Interconnection Customer's executed Interconnection System Impact Study Agreement],

(C) At the end of the reporting quarter, the number of active valid Interconnection Requests with ongoing incomplete [System Impact Studies] Cluster Restudies where Transmission Provider notified Interconnection Customers in the Cluster that a Cluster Restudy is required pursuant to Section 7.5(4) of this LGIP [such Interconnection Requests had executed Interconnection System Impact Study Agreements received by Transmission Provider] more than [(timeline as listed in Transmission Provider's LGIP)] one hundred fifty (150) Calendar Days before the reporting quarter end,

(D) Mean time (in days), [Interconnection System Impact Studies] Cluster Restudies completed within Transmission Provider's coordinated region during the reporting quarter, from the date when Transmission Provider notifies Interconnection Customers in the Cluster that a Cluster Restudy is required pursuant to Section 7.5(4) of this LGIP [received the executed Interconnection System Impact Study Agreement] to the date when Transmission Provider provided the completed [Interconnection System Impact Study] Cluster Restudy Report to [the] Interconnection Customer,

(E) Mean time (in days), Cluster Restudies completed within Transmission Provider's coordinated region during the reporting

quarter, from the close of the Cluster Request Window to the date when Transmission Provider provided the completed Cluster Restudy Report to Interconnection Customer.

[(E)](F) Percentage of [Interconnection System Impact Studies] Cluster Restudies exceeding [(timeline as listed in Transmission Provider's LGIP)] one hundred fifty (150) Calendar Days to complete this reporting quarter, calculated as the sum of 3.5.2.2(B) plus 3.5.2.2(C) divided by the sum of 3.5.2.2(A) plus 3.5.2.2(C)].

3.5.2.3 Interconnection Facilities Studies Processing Time

(A) Number of Interconnection Requests that had Interconnection Facilities Studies that are completed within Transmission Provider's coordinated region during the reporting quarter,

(B) Number of Interconnection Requests that had Interconnection Facilities Studies that are completed within Transmission Provider's coordinated region during the reporting quarter that were completed more than {timeline as listed in Transmission Provider's LGIP} after receipt by Transmission Provider of the Interconnection Customer's executed Interconnection Facilities Study Agreement,

(C) At the end of the reporting quarter, the number of active valid Interconnection Service requests with ongoing incomplete Interconnection Facilities Studies where such Interconnection Requests had executed Interconnection Facilities Studies Agreement received by Transmission Provider more than {timeline as listed in Transmission Provider's LGIP} before the reporting quarter end,

(D) Mean time (in days), for Interconnection Facilities Studies completed within Transmission Provider's coordinated region during the reporting quarter, calculated from the date when Transmission Provider received the executed Interconnection Facilities Study Agreement to the date when Transmission Provider provided the completed Interconnection Facilities Study to the Interconnection Customer,

(E) Mean time (in days), Interconnection Facilities Studies completed within Transmission Provider's coordinated region during the reporting quarter, from the close of the Cluster Request Window to the date when Transmission Provider provided the completed Interconnection Facilities Study to Interconnection Customer.

[(E)](F) Percentage of delayed Interconnection Facilities Studies this reporting quarter, calculated as the sum of 3.5.2.3(B) plus 3.5.2.3(C) divided by the sum of 3.5.2.3(A) plus 3.5.2.3(C)].

3.5.2.4 Interconnection Service Requests Withdrawn From Interconnection Queue

(A) Number of Interconnection Requests withdrawn from Transmission Provider's interconnection queue during the reporting quarter,

(B) Number of Interconnection Requests withdrawn from Transmission Provider's interconnection queue during the reporting quarter before completion of any interconnection studies or execution of any interconnection study agreements,

(C) Number of Interconnection Requests withdrawn from Transmission Provider's interconnection queue during the reporting quarter before completion of [an Interconnection System Impact] *a Cluster Study*,

(D) Number of Interconnection Requests withdrawn from Transmission Provider's interconnection queue during the reporting quarter before completion of an Interconnection Facilities Study,

(E) Number of Interconnection Requests withdrawn from Transmission Provider's interconnection queue after execution of a generator interconnection agreement or Interconnection Customer requests the filing of an unexecuted, new interconnection agreement,

(F) Mean time (in days), for all withdrawn Interconnection Requests, from the date when the request was determined to be valid to when Transmission Provider received the request to withdraw from the queue.

3.5.3

Transmission Provider is required to post on OASIS or its website the measures in paragraph 3.5.2.1(A) through paragraph 3.5.2.4(F) for each calendar quarter within 30 days of the end of the calendar quarter. Transmission Provider will keep the quarterly measures posted on OASIS or its website for three calendar years with the first required report to be in the first quarter of 2020. If Transmission Provider retains this information on its website, a link to the information must be provided on Transmission Provider's OASIS site.

3.5.4

In the event that any of the values calculated in paragraphs 3.5.2.1(E), 3.5.2.2(E) or 3.5.2.3(E) exceeds 25 percent for two consecutive calendar quarters, Transmission Provider will have to comply with the measures below for the next four consecutive calendar quarters and must continue reporting this information until Transmission Provider reports four consecutive calendar quarters without the values calculated in 3.5.2.1(E), 3.5.2.2(E) or 3.5.2.3(E) exceeding 25 percent for two consecutive calendar quarters:

(i) Transmission Provider must submit a report to the Commission describing the reason for each *Cluster Study*, *Cluster Restudy*, or *individual Interconnection Facilities Study* [or group of clustered studies] pursuant to [an] *one or more* Interconnection Request(s) that exceeded its deadline (*i.e.*, [45,] 150, 90 or 180 days) for completion [(excluding any allowance for Reasonable Efforts)]. Transmission Provider must describe the reasons for each study delay and any steps taken to remedy these specific issues and, if applicable, prevent such delays in the future. The report must be filed at the Commission within 45 days of the end of the calendar quarter.

(ii) Transmission Provider shall aggregate the total number of employee-hours and third party consultant hours expended towards interconnection studies within its coordinated region that quarter and post on OASIS or its website. If Transmission Provider posts this information on its website, a link to the information must be

provided on Transmission Provider's OASIS site. This information is to be posted within 30 days of the end of the calendar quarter.

3.6 Coordination With Affected Systems

Transmission Provider will coordinate the conduct of any studies required to determine the impact of the Interconnection Request on Affected Systems with Affected System Operators [and, if possible, include those results in its applicable Interconnection Study within the time frame specified in this LGIP. Transmission Provider will include such Affected System Operators in all meetings held with Interconnection Customer as required by this LGIP]. Interconnection Customer will cooperate with Transmission Provider and Affected System Operator in all matters related to the conduct of studies and the determination of modifications to Affected Systems.

A Transmission Provider whose system may be impacted by a proposed interconnection on another transmission provider's transmission system [which may be an Affected System] shall cooperate with the [T]ransmission [P]rovider with whom interconnection has been requested in all matters related to the conduct of studies and the determination of modifications to Transmission Provider's Transmission System [Affected Systems].

3.6.1 Initial Notification

Transmission Provider must notify Affected System Operator of a potential Affected System impact caused by an Interconnection Request within ten (10) Business Days of the completion of the Cluster Study or, if the potential Affected System impact is only determined in the Cluster Restudy, the completion of the Cluster Restudy.

At the time of initial notification, Transmission Provider must provide Interconnection Customer with a list of potential Affected Systems, along with relevant contact information.

3.7 Withdrawal

Interconnection Customer may withdraw its Interconnection Request at any time by written notice of such withdrawal to Transmission Provider. In addition, if Interconnection Customer fails to adhere to all requirements of this LGIP, except as provided in Section 13.5 (Disputes), Transmission Provider shall deem the Interconnection Request to be withdrawn and shall provide written notice to Interconnection Customer of the deemed withdrawal and an explanation of the reasons for such deemed withdrawal. Upon receipt of such written notice, Interconnection Customer shall have fifteen (15) Business Days in which to either respond with information or actions that cures the deficiency or to notify Transmission Provider of its intent to pursue Dispute Resolution.

Withdrawal shall result in the loss of Interconnection Customer's Queue Position. If an Interconnection Customer disputes the withdrawal and loss of its Queue Position, then during Dispute Resolution, Interconnection Customer's Interconnection Request is eliminated from the queue until such time that the outcome of Dispute

Resolution would restore its Queue Position. An Interconnection Customer that withdraws or is deemed to have withdrawn its Interconnection Request shall pay to Transmission Provider all costs that Transmission Provider prudently incurs with respect to that Interconnection Request prior to Transmission Provider's receipt of notice described above. Interconnection Customer must pay all monies due to Transmission Provider before it is allowed to obtain any Interconnection Study data or results.

If Interconnection Customer withdraws its Interconnection Request or is deemed withdrawn by Transmission Provider under Section 3.7 of this LGIP, Transmission Provider shall (i) update the OASIS Queue Position posting; (ii) impose the Withdrawal Penalty described in Section 3.7.1 of this LGIP; and (iii) refund to Interconnection Customer any portion of the refundable portion of Interconnection Customer's study deposit [or study payments] that exceeds the costs that Transmission Provider has incurred, including interest calculated in accordance with Section 35.19a(a)(2) of FERC's regulations. Transmission Provider shall also refund any portion of the Commercial Readiness Deposit not applied to the Withdrawal Penalty and, if applicable, the deposit in lieu of site control. In the event of such withdrawal, Transmission Provider, subject to the confidentiality provisions of Section 13.1 of this LGIP, shall provide, at Interconnection Customer's request, all information that Transmission Provider developed for any completed study conducted up to the date of withdrawal of the Interconnection Request.

3.7.1 Withdrawal Penalty

Interconnection Customer shall be subject to a Withdrawal Penalty if it withdraws its Interconnection Request or is deemed withdrawn, or the Generating Facility does not otherwise reach Commercial Operation unless: (1) the withdrawal does not have a material impact on the cost or timing of any Interconnection Request with an equal or lower Queue Position; (2) Interconnection Customer withdraws after receiving Interconnection Customer's most recent Cluster Restudy Report and the Network Upgrade costs assigned to the Interconnection Request identified in that report have increased by more than twenty-five percent (25%) compared to costs identified in Interconnection Customer's preceding Cluster Study Report or Cluster Restudy Report; or (3) Interconnection Customer withdraws after receiving Interconnection Customer's Interconnection Facilities Study Report and the Network Upgrade costs assigned to the Interconnection Request identified in that report have increased by more than one hundred percent (100%) compared to costs identified in the Cluster Study Report.

3.7.1.1 Calculation of the Withdrawal Penalty

If Interconnection Customer withdraws its Interconnection Request or is deemed withdrawn prior to the commencement of the initial Cluster Study, Interconnection Customer shall not be subject to a

Withdrawal Penalty. If Interconnection Customer withdraws, is deemed withdrawn, or otherwise does not reach Commercial Operation at any point after the commencement of the initial Cluster Study, that Interconnection Customer's Withdrawal Penalty will be the greater of: (1) the Interconnection Customer's study deposit required under Section 3.1.1.1 of this LGIP; or (2) as follows in (a)–(d):

(a) If Interconnection Customer withdraws or is deemed withdrawn during the Cluster Study or after receipt of a Cluster Study Report, but prior to commencement of the Cluster Restudy or Interconnection Facilities Study, Interconnection Customer shall be charged two (2) times its actual allocated cost of all studies performed for Interconnection Customers in the Cluster up until that point in the interconnection study process.

(b) If Interconnection Customer withdraws or is deemed withdrawn during the Cluster Restudy or after receipt of any applicable restudy reports issued pursuant to Section 7.5 of this LGIP, but prior to commencement of the Interconnection Facilities Study, Interconnection Customer shall be charged five percent (5%) its estimated Network Upgrade costs.

(c) If Interconnection Customer withdraws or is deemed withdrawn during the Interconnection Facilities Study, after receipt of the Interconnection Facilities Study Report issued pursuant to Section 8.3 of this LGIP, or after receipt of the draft LGIA but before Interconnection Customer has executed an LGIA or has requested that its LGIA be filed unexecuted, and has satisfied the other requirements described in Section 11.3 of this LGIP (i.e., Site Control demonstration, LGIA Deposit, reasonable evidence of one or more milestones in the development of the Generating Facility), Interconnection Customer shall be charged ten percent (10%) its estimated Network Upgrade costs.

(d) If Interconnection Customer has executed an LGIA or has requested that its LGIA be filed unexecuted and has satisfied the other requirements described in Section 11.3 of this LGIP (i.e., Site Control demonstration, LGIA Deposit, reasonable evidence of one or more milestones in the development of the Generating Facility) and subsequently withdraws its Interconnection Request or if Interconnection Customer's Generating Facility otherwise does not reach Commercial Operation, that Interconnection Customer's Withdrawal Penalty shall be twenty percent (20%) its estimated Network Upgrade costs.

3.7.1.2 Distribution of the Withdrawal Penalty

3.7.1.2.1 Initial Distribution of Withdrawal Penalties Prior To Assessment of Network Upgrade Costs Previously Shared With Withdrawn Interconnection Customers in the Same Cluster

For a single cluster, Transmission Provider shall hold all Withdrawal Penalty funds until all Interconnection Customers in that Cluster have either: (1) withdrawn or been deemed withdrawn; (2) executed an LGIA; or (3) requested an LGIA to be filed unexecuted. Any Withdrawal Penalty funds collected from the Cluster shall first be used to fund studies

conducted under the Cluster Study Process for Interconnection Customers in the same Cluster that have executed the LGIA or requested the LGIA to be filed unexecuted. Next, after the Withdrawal Penalty funds are applied to relevant study costs in the same Cluster, Transmission Provider will apply the remaining Withdrawal Penalty funds to reduce net increases, for Interconnection Customers in the same Cluster, in Interconnection Customers' Network Upgrade cost assignment and associated financial security requirements under Article 11.5 of the pro forma LGIA attributable to the impacts of withdrawn Interconnection Customers that shared an obligation with the remaining Interconnection Customers to fund a Network Upgrade, as described in more detail in Sections 3.7.1.2.3 and 3.7.1.2.4.

Withdrawal Penalty funds shall first be applied as a refund to invoiced study costs for Interconnection Customers in the same Cluster that did not withdraw within 30 Calendar Days of such Interconnection Customers executing their LGIA or requesting to have their LGIA filed unexecuted. Distribution of Withdrawal Penalty funds within one specific Cluster Study for study costs shall not exceed the total actual Cluster Study costs. Withdrawal Penalty funds applied to study costs shall be allocated within the same Cluster to Interconnection Customers in a manner consistent with the Transmission Provider's method in Section 13.3 of this LGIP for allocating the costs of interconnection studies conducted on a clustered basis. Transmission Provider shall post the balance of Withdrawal Penalty funds held by Transmission Provider but not yet dispersed on its OASIS site and update this posting on a quarterly basis.

If an Interconnection Customer withdraws after it executes, or requests the unexecuted filing of, its LGIA, Transmission Provider shall first apply such Interconnection Customer's Withdrawal Penalty funds to any restudy costs required due to the Interconnection Customer's withdrawal as a credit to as-yet-to be invoiced study costs to be charged to the remaining Interconnection Customers in the same Cluster in a manner consistent with the Transmission Provider's method in Section 13.3 of this LGIP for allocating the costs of interconnection studies conducted on a clustered basis. Distribution of the Withdrawal Penalty funds for such restudy costs shall not exceed the total actual restudy costs.

3.7.1.2.2 Assessment of Network Upgrade Costs Previously Shared With Withdrawn Interconnection Customers in the Same Cluster

If Withdrawal Penalty funds remain for the same Cluster after the Withdrawal Penalty funds are applied to relevant study costs, Transmission Provider will determine if the withdrawn Interconnection Customers, at any point in the Cluster Study Process, shared cost assignment for one or more Network Upgrades with any remaining Interconnection Customers in the same Cluster based on the Cluster Study Report, Cluster Restudy Report(s), Interconnection Facilities Study Report, and any subsequent issued restudy report issued for the Cluster.

In section 3.7.1.2 of this LGIP, shared cost assignments for Network Upgrades refers to the cost of Network Upgrades still needed for the same Cluster for which an Interconnection Customer, prior to withdrawing its Interconnection Request, shared the obligation to fund along with Interconnection Customers that have executed an LGIA, or requested the LGIA to be filed unexecuted.

If Transmission Provider's assessment determines that there are no shared cost assignments for any Network Upgrades in the same Cluster for the withdrawn Interconnection Customer, or determines that the withdrawn Interconnection Customer's withdrawal did not cause a net increase in the shared cost assignment for any remaining Interconnection Customers' Network Upgrade(s) in the same Cluster, Transmission Provider will return any remaining Withdrawal Penalty funds to the withdrawn Interconnection Customer(s). Such remaining Withdrawal Penalty funds will be returned to withdrawn Interconnection Customers based on the proportion of each withdrawn Interconnection Customer's contribution to the total amount of Withdrawal Penalty funds collected for the Cluster (i.e., the total amount before the initial disbursement required under Section 3.7.1.2.1 of this LGIP). Transmission Provider must make such disbursement within sixty (60) Calendar Days of the date on which all Interconnection Customers in the same Cluster have either: (1) withdrawn or been deemed withdrawn; (2) executed an LGIA; or (3) requested an LGIA to be filed unexecuted. For the withdrawn Interconnection Customers that Transmission Provider determines have caused a net increase in the shared cost assignment for one or more Network Upgrade(s) in the same Cluster under subsection 3.7.1.2.3(a), Transmission Provider will determine each such withdrawn Interconnection Customers' Withdrawal Penalty funds remaining balance that will be applied toward net increases in Network Upgrade shared costs calculated under subsections 3.7.1.2.3(a) and 3.7.1.2.3(b) based on each such withdrawn Interconnection Customer's proportional contribution to the total amount of Withdrawal Penalty funds collected for the same Cluster (i.e., the total amount before the initial disbursement requirement under Section 3.7.1.2.1 of this LGIP).

If the Transmission Provider's assessment determines that there are shared cost assignments for Network Upgrades in the same Cluster, Transmission Provider will calculate the remaining Interconnection Customers' net increase in cost assignment for Network Upgrades due to a shared cost assignment for Network Upgrades with the withdrawn Interconnection Customer and distribute Withdrawal Penalty funds as described in Section 3.7.1.2.3, depending on whether the withdrawal occurred before the withdrawing Interconnection Customer executed the LGIA (or filed unexecuted), as described in subsection 3.7.1.2.3(a), or after such execution (or filing unexecuted) of an LGIA, as described in subsection 3.7.1.2.3(b).

As discussed in subsection 3.7.1.2.4, Transmission Provider will amend executed (or filed unexecuted) LGIAs of the remaining

Interconnection Customers in the same Cluster to apply the remaining Withdrawal Penalty funds to reduce net increases in Interconnection Customers' Network Upgrade cost assignment and associated financial security requirements under Article 11.5 of the pro forma LGIA attributable to the impacts of withdrawn Interconnection Customers on Interconnection Customers remaining in the same Cluster that had a shared cost assignment for Network Upgrades with the withdrawn Interconnection Customers.

3.7.1.2.3 Impact Calculations

3.7.1.2.3(a) Impact Calculation for Withdrawals During the Cluster Study Process

If an Interconnection Customer withdraws before it executes, or requests the unexecuted filing of, its LGIA, the Transmission Provider will distribute in the following manner the Withdrawal Penalty funds to reduce the Network Upgrade cost impact on the remaining Interconnection Customers in the same Cluster who had a shared cost assignment for a Network Upgrade with the withdrawn Interconnection Customer.

To calculate the reduction in the remaining Interconnection Customers' net increase in Network Upgrade costs and associated financial security requirements under Article 11.5 of the pro forma LGIA, the Transmission Provider will determine the financial impact of a withdrawing Interconnection Customer on other Interconnection Customers in the same Cluster that shared an obligation to fund the same Network Upgrade(s). Transmission Provider shall calculate this financial impact once all the Interconnection Customers in the same Cluster either: (1) have withdrawn or have been deemed withdrawn; (2) executed an LGIA; or (3) request an LGIA to be filed unexecuted. Transmission Provider will perform the financial impact calculation using the following steps.

First, Transmission Provider must determine which withdrawn Interconnection Customers shared an obligation to fund Network Upgrades with Interconnection Customers from the same Cluster that have LGIAs that are executed or have been requested to be filed unexecuted. Next, Transmission Provider shall perform the calculation of the financial impact of a withdrawal on another Interconnection Request in the same Cluster by performing a comparison of the Network Upgrade cost estimates between each of the following:

- (1) Cluster Study phase to Cluster Restudy phase (if Cluster Restudy was necessary);*
- (2) Cluster Restudy phase to Facilities Study phase (if a Cluster Restudy was necessary);*
- (3) Cluster Study phase to Facilities Study phase (if no Cluster Restudy was performed);*
- (4) Facilities Study phase to any subsequent restudy that was performed before the execution or filing of an unexecuted LGIA;*
- (5) the restudy to the executed, or filed unexecuted, LGIA (if a restudy was performed after the Facilities Study phase and before the execution or filing of an unexecuted LGIA).*

If, based on the above calculations, Transmission Provider determines:

(i) that the costs assigned to an Interconnection Customer in the same Cluster for Network Upgrades that a withdrawn Interconnection Customer shared cost assignment for increased between any two studies, and

(ii) after the impacted Interconnection Customer's LGIA was executed or filed unexecuted, the Interconnection Customer's cost assignment for the relevant Network Upgrade is greater than it was prior to the withdrawal of the Interconnection Customer in the same Cluster that shared cost assignment for the Network Upgrade,

then Transmission Provider shall apply the withdrawn Interconnection Customer's Withdrawal Penalty funds that has not already been applied to study costs in the amount of the financial impact by reducing, in the same Cluster, the remaining Interconnection Customer's Network Upgrade costs and associated financial security requirements under Article 11.5 of the pro forma LGIA.

If Transmission Provider determines that more than one Interconnection Customer in the same Cluster was financially impacted by the same withdrawn Interconnection Customer, Transmission Provider will apply the relevant withdrawn Interconnection Customer's Withdrawal Penalty funds that has not already been applied to study costs to reduce the financial impact to each Interconnection Customer based on each Interconnection Customer's proportional share of the financial impact, as determined by either the proportional impact method if it is a System Network Upgrade or on a per capita basis if it is a Substation Network Upgrade, as described under Section 4.2.1 of this LGIP.

3.7.1.2.3(b) Impact Calculation for Withdrawals in the Same Cluster After the Cluster Study Process

If an Interconnection Customer withdraws after it executes, or requests the unexecuted filing of, its LGIA, Transmission Provider will distribute in the following manner the remaining Withdrawal Penalty funds to reduce the Network Upgrade cost impact on the remaining Interconnection Customers in the same Cluster who had a shared cost assignment with the withdrawn Interconnection Customer for one or more Network Upgrades.

Transmission Provider will determine the financial impact on the remaining Interconnection Customers in the same Cluster within 30 calendar days after the withdrawal occurs. The Transmission Provider will determine that financial impact by comparing the Network Upgrade cost funding obligations the Interconnection Customers shared with the withdrawn Interconnection Customer before the withdrawal of the Interconnection Customer and after the withdrawal of the Interconnection Customer. If that comparison indicates an increase in Network Upgrade costs for an Interconnection Customer, Transmission Provider shall apply the withdrawn Interconnection Customer's Withdrawal Penalty funds to the increased

costs each impacted Interconnection Customer in the same Cluster experienced associated with such Network Upgrade(s) in proportion to each Interconnection Customer's increased cost assignment, as determined by Transmission Provider.

3.7.1.2.4 Amending LGIA To Apply Reductions To Interconnection Customer's Assigned Network Upgrade Costs and Associated Financial Security Requirement With Respect To Withdrawals in the Same Cluster

Within 30 Calendar Days of all Interconnection Customers in the same Cluster having: (1) withdrawn or been deemed withdrawn; (2) executed an LGIA; or (3) requested an LGIA to be filed unexecuted, Transmission Provider must perform the calculations described in subsection 3.7.1.2.3(a) of this LGIP and provide such Interconnection Customers with an amended LGIA that provides the reduction in Network Upgrade cost assignment and associated reduction to the Interconnection Customer's financial security requirements, under Article 11.5 of the pro forma LGIA, due from the Interconnection Customer to the Transmission Provider.

Where an Interconnection Customer executes the LGIA (or requests the filing of an unexecuted LGIA) and is later withdrawn or its LGIA is terminated, Transmission Provider must, within 30 Calendar Days of such withdrawal or termination, perform the calculations described in subsection 3.7.1.2.3(b) of this LGIP and provide such Interconnection Customers in the same Cluster with an amended LGIA that provides the reduction in Network Upgrade cost assignment and associated reduction to the Interconnection Customer's financial security requirements, under Article 11.5 of the pro forma LGIA, due from the Interconnection Customer to Transmission Provider.

Any repayment by Transmission Provider to Interconnection Customer under Article 11.4 of the pro forma LGIA of amounts advanced for Network Upgrades after the Generating Facility achieves Commercial Operation shall be limited to the Interconnection Customer's total amount of Network Upgrade costs paid and associated financial security provided to Transmission Provider under Article 11.5 of the pro forma LGIA.

3.7.1.2.5 Final Distribution of Withdrawal Penalty Funds

If Withdrawal Penalty funds remain for the Cluster after the Withdrawal Penalty funds are applied to relevant study costs and net increases in shared cost assignments for Network Upgrades to remaining Interconnection Customers, Transmission Provider will return any remaining Withdrawal Penalty funds to the withdrawn Interconnection Customers in the same Cluster net of the amount of each withdrawn Interconnection Customer's Withdrawal Penalty funds applied to study costs and net increases in shared cost assignments for Network Upgrades to remaining Interconnection Customers.

3.8 Identification of Contingent Facilities

Transmission Provider shall post in this section a method for identifying the

Contingent Facilities to be provided to Interconnection Customer at the conclusion of the [System Impact] *Cluster Study* and included in Interconnection Customer's Large Generator Interconnection Agreement. The method shall be sufficiently transparent to determine why a specific Contingent Facility was identified and how it relates to the Interconnection Request. Transmission Provider shall also provide, upon request of [the] Interconnection Customer, the estimated Interconnection Facility and/or Network Upgrade costs and estimated in-service completion time of each identified Contingent Facility when this information is readily available and not commercially sensitive.

3.9 Penalties for Failure To Meet Study Deadlines

(1) Transmission Provider shall be subject to a penalty if it fails to complete a Cluster Study, Cluster Restudy, Interconnection Facilities Study, or Affected Systems Study by the applicable deadline set forth in this LGIP. Transmission Provider must pay the penalty for each late Cluster Study, Cluster Restudy, and Interconnection Facilities Study on a pro rata basis per Interconnection Request to all Interconnection Customer(s) included in the relevant study that did not withdraw, or were not deemed withdrawn, from Transmission Provider's interconnection queue before the missed study deadline. Transmission Provider must pay the penalty for a late Affected Systems Study on a pro rata basis per interconnection request to all Affected System Interconnection Customer(s) included in the relevant Affected System Study that did not withdraw, or were not deemed withdrawn, from the host transmission provider's interconnection queue before the missed study deadline. The study delay penalty for each late study shall be distributed no later than forty-five (45) Calendar Days after the late study has been completed.

(2) For penalties assessed in accordance with this Section, the penalty amount will be equal to: \$1,000 per Business Day for delays of Cluster Studies beyond the applicable deadline set forth in this LGIP; \$2,000 per Business Day for delays of Cluster Re-Studies beyond the applicable deadline set forth in this LGIP; \$2,000 per Business Day for delays of Affected System Studies beyond the applicable deadline set forth in this LGIP; and \$2,500 per Business Day for delays of Interconnection Facilities Studies beyond the applicable deadline set forth in this LGIP. The total amount of a penalty assessed under this Section shall not exceed: (a) one hundred percent (100%) of the initial study deposit(s) received for all of the Interconnection Requests in the Cluster for Cluster Studies and Cluster Restudies; (b) one hundred percent (100%) of the initial study deposit received for the single Interconnection Request in the study for Facilities Studies; and (c) one hundred percent (100%) of the study deposit(s) that Transmission Provider collects for conducting the Affected System Study.

(3) Transmission Provider may appeal to the Commission any penalties imposed under this Section. Any such appeal must be filed no later than forty-five (45) Calendar

Days after the late study has been completed. While an appeal to the Commission is pending, Transmission Provider shall remain liable for the penalty, but need not distribute the penalty until forty-five (45) Calendar Days after (1) the deadline for filing a rehearing request has ended, if no requests for rehearing of the appeal have been filed, or (2) the date that any requests for rehearing of the Commission's decision on the appeal are no longer pending before the Commission. The Commission may excuse Transmission Provider from penalties under this Section for good cause.

(4) No penalty will be assessed under this Section where a study is delayed by ten (10) Business Days or less. If the study is delayed by more than ten (10) Business Days, the penalty amount will be calculated from the first Business Day the Transmission Provider misses the applicable study deadline.

(5) If (a) Transmission Provider needs to extend the deadline for a particular study subject to penalties under this Section and (b) all Interconnection Customers or Affected System Interconnection Customers included in the relevant study mutually agree to such an extension, the deadline for that study shall be extended thirty (30) Business Days from the original deadline. In such a scenario, no penalty will be assessed for Transmission Provider missing the original deadline.

(6) No penalties shall be assessed until the third Cluster Study cycle (including any Transitional Cluster Study cycle, but not Transitional Serial Studies) after the Commission-approved effective date of Transmission Provider's filing made in compliance with the Final rule in Docket No. RM22-14-000.

(7) Transmission Provider must maintain on its OASIS or its public website summary statistics related to penalties assessed under this Section, updated quarterly. For each calendar quarter, Transmission Provider must calculate and post (1) the total amount of penalties assessed under this Section during the previous reporting quarter and (2) the highest penalty assessed under this Section paid to a single Interconnection Customer or Affected System Interconnection Customer during the previous reporting quarter. Transmission Provider must post on its OASIS or its website these penalty amounts for each calendar quarter within thirty (30) Calendar Days of the end of the calendar quarter. Transmission Provider must maintain the quarterly measures posted on its OASIS or its website for three (3) calendar years with the first required posting to be the third Cluster Study cycle (including any Transitional Cluster Study cycle, but not Transitional Serial Studies) after Transmission Provider transitions to the Cluster Study Process.

Section 4. Interconnection Request Evaluation Process [Queue Position]

Once an Interconnection Customer has submitted a valid Interconnection Request pursuant to Section 3.4 of this LGIP, such Interconnection Request shall become part of the Transmission Provider's interconnection queue for further processing pursuant to the following procedures.

4.1 Queue Position [General]

4.1.1 Assignment of Queue Position

Transmission Provider shall assign a Queue Position as follows: *the Queue Position within the queue shall be assigned based upon the date and time of receipt of all items required pursuant to the provisions of Section 3.4 of this LGIP. All Interconnection Requests submitted and validated in a single Cluster Request Window shall be considered equally queued.* [based upon the date and time of receipt of the valid Interconnection Request; provided that, if the sole reason an Interconnection Request is not valid is the lack of required information on the application form, and Interconnection Customer provides such information in accordance with Section 3.4.3, then Transmission Provider shall assign Interconnection Customer a Queue Position based on the date the application form was originally filed. Moving a Point of Interconnection shall result in a lowering of Queue Position if it is deemed a Material Modification under Section 4.4.3.]

[The Queue Position of each Interconnection Request will be used to determine the order of performing the Interconnection Studies and determination of cost responsibility for the facilities necessary to accommodate the Interconnection Request. A higher queued]

4.1.2 Higher Queue Position

A higher Queue Position assigned to an Interconnection Request is one that has been placed "earlier" in the queue in relation to another Interconnection Request that is [lower queued. Transmission Provider may allocate the cost of the common upgrades for clustered Interconnection Requests without regard to Queue Position.] assigned a lower Queue Position. All requests studied in a single Cluster shall be considered equally queued. Interconnection Customers that are part of Clusters initiated earlier in time than an instant Queue shall be considered to have a higher Queue Position than Interconnection Customers that are part of Clusters initiated later than an instant Queue.

4.2 Clustering

At Transmission Provider's option, Interconnection Requests may be studied serially or in clusters for the purpose of the Interconnection System Impact Study.

Clustering shall be implemented on the basis of Queue Position. If Transmission Provider elects to study Interconnection Requests using Clustering, all Interconnection Requests received within a period not to exceed one hundred and eighty (180) Calendar Days, hereinafter referred to as the "Queue Cluster Window" shall be studied together without regard to the nature of the underlying Interconnection Service, whether Energy Resource Interconnection Service or Network Resource Interconnection Service. The deadline for completing all Interconnection System Impact Studies for which an Interconnection System Impact Study Agreement has been executed during a Queue Cluster Window shall be in accordance with Section 7.4, for all Interconnection Requests assigned to the same Queue Cluster Window. Transmission

Provider may study an Interconnection Request separately to the extent warranted by Good Utility Practice based upon the electrical remoteness of the proposed Large Generating Facility.]

4.2 General Study Process

[Clustering Interconnection System Impact Studies] *Interconnection Studies performed within the Cluster Study Process* shall be conducted in such a manner to ensure the efficient implementation of the applicable regional transmission expansion plan in light of the Transmission System's capabilities at the time of each study and consistent with Good Utility Practice.

Transmission Provider may use subgroups in the Cluster Study Process. In all instances in which Transmission Provider elects to use subgroups in the cluster study process, Transmission Provider must publish the criteria used to define and determine subgroups on its OASIS or public website.

[The Queue Cluster Window shall have a fixed time interval based on fixed annual opening and closing dates. Any changes to the established Queue Cluster Window interval and opening or closing dates shall be announced with a posting on Transmission Provider's OASIS beginning at least one hundred and eighty (180) Calendar Days in advance of the change and continuing thereafter through the end date of the first Queue Cluster Window that is to be modified.]

4.2.1 Cost Allocation for Interconnection Facilities and Network Upgrades

(1) *For Network Upgrades identified in Cluster Studies, Transmission Provider shall calculate each Interconnection Customer's share of the costs as follows:*

(a) *Substation Network Upgrades, including all switching stations, shall be allocated per capita to each Generating Facility interconnecting at the same substation.*

(b) *System Network Upgrades shall be allocated based on the proportional impact of each individual Generating Facility in the Cluster Study on the need for a specific System Network Upgrade. {Transmission Provider shall include in this section a description of how cost for each facility type designated as a network upgrade will be allocated using its proportional impact method.}*

(c) *An Interconnection Customer that funds Substation Network Upgrades and/or System Network Upgrades shall be entitled to transmission credits as provided in Article 11.4 of the LGIA.*

(2) *The costs of any needed Interconnection Facilities identified in the Cluster Study Process will be directly assigned to the Interconnection Customer(s) using such facilities. Where Interconnection Customers in the Cluster agree to share Interconnection Facilities, the cost of such Interconnection Facilities shall be allocated based on the number of Generating Facilities sharing use of such Interconnection Facilities on a per capita basis (i.e., on a per Generating Facility basis), unless Parties mutually agree to a different cost sharing arrangement.*

4.3 Transferability of Queue Position

An Interconnection Customer may transfer its Queue Position to another entity only if such entity acquires the specific Generating Facility identified in the Interconnection Request and the Point of Interconnection does not change.

4.4 Modifications

Interconnection Customer shall submit to Transmission Provider, in writing, modifications to any information provided in the Interconnection Request. Interconnection Customer shall retain its Queue Position if the modifications are in accordance with Sections 4.4.1, 4.4.2, or 4.4.5 of this LGIP, or are determined not to be Material Modifications pursuant to Section 4.4.3 of this LGIP.

Notwithstanding the above, during the course of the Interconnection Studies, either Interconnection Customer or Transmission Provider may identify changes to the planned interconnection that may improve the costs and benefits (including reliability) of the interconnection, and the ability of the proposed change to accommodate the Interconnection Request. To the extent the identified changes are acceptable to Transmission Provider[,] and Interconnection Customer, such acceptance not to be unreasonably withheld, Transmission Provider shall modify the Point of Interconnection prior to return of the executed Cluster Study Agreement, [and/or configuration in accordance with such changes and proceed with any re-studies necessary to do so in accordance with Section 6.4, Section 7.6 and Section 8.5 as applicable] and Interconnection Customer shall retain its Queue Position.

4.4.1 Prior to the return of the executed [Interconnection System Impact] Cluster Study Agreement to Transmission Provider, modifications permitted under this Section shall include specifically: (a) a decrease of up to 60 percent of electrical output (MW) of the proposed project, through either (1) a decrease in plant size or (2) a decrease in Interconnection Service level (consistent with the process described in Section 3.1 of this LGIP) accomplished by applying Transmission Provider-approved injection-limiting equipment; (b) modifying the technical parameters associated with the Large Generating Facility technology or the Large Generating Facility step-up transformer impedance characteristics; and (c) modifying the interconnection configuration. For plant increases, the incremental increase in plant output will go [to] in the [end of the queue] next Cluster Study Window for the purposes of cost allocation and study analysis.

4.4.2 Prior to the return of the executed Interconnection Facility Study Agreement to Transmission Provider, the modifications permitted under this Section shall include specifically: (a) additional 15 percent decrease of electrical output of the proposed project through either (1) a decrease in plant size (MW) or (2) a decrease in Interconnection Service level (consistent with the process described in Section 3.1) accomplished by applying Transmission Provider-approved injection-limiting

equipment; (b) Large Generating Facility technical parameters associated with modifications to Large Generating Facility technology and transformer impedances; provided, however, the incremental costs associated with those modifications are the responsibility of the requesting Interconnection Customer; and (c) a Permissible Technological Advancement for the Large Generating Facility after the submission of the Interconnection Request. Section 4.4.6 specifies a separate technological change procedure including the requisite information and process that will be followed to assess whether the Interconnection Customer's proposed technological advancement under Section 4.4.2(c) is a Material Modification. Section 1 contains a definition of Permissible Technological Advancement.

4.4.3 Prior to making any modification other than those specifically permitted by Sections 4.4.1, 4.4.2, and 4.4.5 of this LGIP, Interconnection Customer may first request that Transmission Provider evaluate whether such modification is a Material Modification. In response to Interconnection Customer's request, Transmission Provider shall evaluate the proposed modifications prior to making them and inform Interconnection Customer in writing of whether the modifications would constitute a Material Modification. Any change to the Point of Interconnection, except those deemed acceptable under Sections 3.1.2 or 4.4 of this LGIP [1, 6.1, 7.2] or so allowed elsewhere, shall constitute a Material Modification. Interconnection Customer may then withdraw the proposed modification or proceed with a new Interconnection Request for such modification. *Transmission Provider shall study the addition of a Generating Facility that includes at least one electric storage resource using operating assumptions (i.e., whether the interconnecting Generating Facility will or will not charge at peak load) that reflect the proposed charging behavior of the Generating Facility as requested by Interconnection Customer, unless Transmission Provider determines that Good Utility Practice, including Applicable Reliability Standards, otherwise requires the use of different operating assumptions.*

{Transmission Providers using fuel-based dispatch assumptions in Interconnection Studies are not required to include Section 4.4.3.1 because it does not apply to them}

4.4.3.1 Interconnection Customer may request, and Transmission Provider shall evaluate, the addition to the Interconnection Request of a Generating Facility with the same Point of Interconnection indicated in the initial Interconnection Request, if the addition of the Generating Facility does not increase the requested Interconnection Service level. Transmission Provider must evaluate such modifications prior to deeming them a Material Modification, but only if Interconnection Customer submits them prior to the return of the executed Facilities Study Agreement by Interconnection Customer to Transmission Provider. Interconnection Customers requesting that such a modification be evaluated must demonstrate the required Site Control at the time such request is made.

4.4.4 Upon receipt of Interconnection Customer's request for modification permitted under this Section 4.4, Transmission Provider shall commence and perform any necessary additional studies as soon as practicable, but in no event shall Transmission Provider commence such studies later than thirty (30) Calendar Days after receiving notice of Interconnection Customer's request. Any additional studies resulting from such modification shall be done at Interconnection Customer's cost. *Any such request for modification of the Interconnection Request must be accompanied by any resulting updates to the models described in Attachment A to Appendix 1 of this LGIP.*

4.4.5 Extensions of less than three (3) cumulative years in the Commercial Operation Date of the Large Generating Facility to which the Interconnection Request relates are not material and should be handled through construction sequencing. *For purposes of this section, the Commercial Operation Date reflected in the initial Interconnection Request shall be used to calculate the permissible extension prior to Interconnection Customer executing an LGIA or requesting that the LGIA be filed unexecuted. After an LGIA is executed or requested to be filed unexecuted, the Commercial Operation Date reflected in the LGIA shall be used to calculate the permissible extension. Such cumulative extensions may not exceed three years including both extensions requested after execution of the LGIA by Interconnection Customer or the filing of an unexecuted LGIA by Transmission Provider and those requested prior to execution of the LGIA by Interconnection Customer or the filing of an unexecuted LGIA by Transmission Provider.*

4.4.6 Technological Change Procedures

{Insert technological change procedure here}

Section 5. Procedures for Interconnection Requests Submitted Prior to Effective Date of the Cluster Study Revisions[Standard Large Generator Interconnection Procedures]

5.1 Procedures for Transitioning to the Cluster Study Process [Queue Position for Pending Requests.]

5.1.1

[Any Interconnection Customer assigned a Queue Position prior to the effective date of this LGIP shall retain that Queue Position.]

Any Interconnection Customer assigned a Queue Position as of thirty (30) Calendar Days after {Transmission Provider to insert filing date} (the filing date of this LGIP) shall retain that Queue Position subject to the requirements in Sections 5.1.1.1 and 5.1.1.2 of this LGIP. Any Interconnection Customer that fails to meet these requirements shall have its Interconnection Request deemed withdrawn by Transmission Provider pursuant to Section 3.7 of this LGIP. In such case, Transmission Provider shall not assess the Interconnection Customer any Withdrawal Penalty.

Any Interconnection Customer that has received a final Interconnection Facilities Study Report before the commencement of

the studies under the transition process set forth in this section shall be tendered an LGIA pursuant to Section 11 of this LGIP, and shall not be required to enter this transition process.

5.1.1.1 Transitional Serial Study

[If an Interconnection Study Agreement has not been executed as of the effective date of this LGIP, then such Interconnection Study, and any subsequent Interconnection Studies, shall be processed in accordance with this LGIP.]

An Interconnection Customer that has been tendered an Interconnection Facilities Study Agreement as of thirty (30) Calendar Days after {Transmission Provider to insert filing date} (the filing date of this LGIP) may opt to proceed with an Interconnection Facilities Study. Transmission Provider shall tender each eligible Interconnection Customer a Transitional Serial Interconnection Facilities Study Agreement, in the form of Appendix 8 to this LGIP, no later than the Commission-approved effective date of this LGIP. Transmission Provider shall proceed with the Interconnection Facilities Study, provided that the Interconnection Customer: (1) meets each of the following requirements; and (2) executes the Transitional Serial Interconnection Facilities Study Agreement within sixty (60) Calendar Days of the Commission-approved effective date of this LGIP. If an eligible Interconnection Customer does not meet these requirements, its Interconnection Request shall be deemed withdrawn without penalty. Transmission Provider must commence the Transitional Serial Interconnection Facilities Study at the conclusion of this sixty (60) Calendar Day period. Transitional Serial Interconnection Facilities Study costs shall be allocated according to the method described in Section 13.3 of this LGIP.

All of the following must be included when an Interconnection Customer returns the Transitional Serial Interconnection Facilities Study Agreement:

(1) A deposit equal to one hundred percent (100%) of the costs identified for Transmission Provider's Interconnection Facilities and Network Upgrades in Interconnection Customer's system impact study report. If Interconnection Customer does not withdraw, the deposit shall be trued up to actual costs once they are known and applied to future construction costs described in Interconnection Customer's eventual LGIA. Any amounts in excess of the actual construction costs shall be returned to Interconnection Customer within thirty (30) Calendar Days of the issuance of a final invoice for construction costs, in accordance with Article 12.2 of the pro forma LGIA. If Interconnection Customer withdraws or otherwise does not reach Commercial Operation, Transmission Provider shall refund the remaining deposit after the final invoice for study costs and Withdrawal Penalty is settled. The deposit shall be in the form of an irrevocable letter of credit or cash where cash deposits shall be treated according to Section 3.7 of this LGIP.

(2) Exclusive Site Control for 100% of the proposed Generating Facility.

Transmission Provider shall conduct each Transitional Serial Interconnection Facilities

Study and issue the associated Transitional Serial Interconnection Facilities Study Report within one hundred fifty (150) Calendar Days of the Commission-approved effective date of this LGIP.

After Transmission Provider issues each Transitional Interconnection Facilities Study Report, Interconnection Customer shall proceed pursuant to Section 11 of this LGIP. If Interconnection Customer withdraws its Interconnection Request or if Interconnection Customer's Generating Facility otherwise does not reach Commercial Operation, a Withdrawal Penalty shall be imposed on Interconnection Customer equal to nine (9) times Interconnection Customer's total study cost incurred since entering the Transmission Provider's interconnection queue (including the cost of studies conducted under Section 5 of this LGIP).

5.1.1.2 Transitional Cluster Study

[If an Interconnection Study Agreement has been executed prior to the effective date of this LGIP, such Interconnection Study shall be completed in accordance with the terms of such agreement. With respect to any remaining studies for which an Interconnection Customer has not signed an Interconnection Study Agreement prior to the effective date of the LGIP, Transmission Provider must offer Interconnection Customer the option of either continuing under Transmission Provider's existing interconnection study process or going forward with the completion of the necessary Interconnection Studies (for which it does not have a signed Interconnection Studies Agreement) in accordance with this LGIP.]

An Interconnection Customer with an assigned Queue Position as of thirty (30) Calendar Days after {Transmission Provider to insert filing date} (the filing date of this LGIP) may opt to proceed with a Transitional Cluster Study. Transmission Provider shall tender each eligible Interconnection Customer a Transitional Cluster Study Agreement, in the form of Appendix 7 to this LGIP, no later than the Commission-approved effective date of this LGIP. Transmission Provider shall proceed with the Transitional Cluster Study that includes each Interconnection Customer that: (1) meets each of the following requirements listed as (1)–(3) in this section; and (2) executes the Transitional Cluster Study Agreement within sixty (60) Calendar Days of the Commission-approved effective date of this LGIP. All Interconnection Requests that enter the Transitional Cluster Study shall be considered to have an equal Queue Position that is lower than Interconnection Customer(s) proceeding with Transitional Serial Interconnection Facilities Study. If an eligible Interconnection Customer does not meet these requirements, its Interconnection Request shall be deemed withdrawn without penalty. Transmission Provider must commence the Transitional Cluster Study at the conclusion of this sixty (60) Calendar Day period. All identified Transmission Provider's Interconnection Facilities and Network Upgrade costs shall be allocated according to Section 4.2.1 of this LGIP. Transitional Cluster Study costs shall be allocated according to the method described in Section 13.3 of this LGIP.

Interconnection Customer may make a one-time extension to its requested Commercial Operation Date upon entry into the Transitional Cluster Study, where any such extension shall not result in a Commercial Operation Date later than December 31, 2027.

All of the following must be included when an Interconnection Customer returns the Transitional Cluster Study Agreement:

(1) A selection of either Energy Resource Interconnection Service or Network Resource Interconnection Service.

(2) A deposit of five million dollars (\$5,000,000) in the form of an irrevocable letter of credit or cash where cash deposits will be treated according to Section 3.7 of this LGIP. If Interconnection Customer does not withdraw, the deposit shall be reconciled with and applied towards future construction costs described in the LGIA. Any amounts in excess of the actual construction costs shall be returned to Interconnection Customer within thirty (30) Calendar Days of the issuance of a final invoice for construction costs, in accordance with Article 12.2 of the pro forma LGIA. If Interconnection Customer withdraws or otherwise does not reach Commercial Operation, Transmission Provider must refund the remaining deposit once the final invoice for study costs and Withdrawal Penalty is settled.

(3) Exclusive Site Control for 100% of the proposed Generating Facility.

Transmission Provider shall conduct the Transitional Cluster Study and issue both an associated interim Transitional Cluster Study Report and an associated final Transitional Cluster Study Report. The interim Transitional Cluster Study Report shall provide the following information:

- identification of any circuit breaker short circuit capability limits exceeded as a result of the interconnection;
- identification of any thermal overload or voltage limit violations resulting from the interconnection;
- identification of any instability or inadequately damped response to system disturbances resulting from the interconnection; and
- Transmission Provider's Interconnection Facilities and Network Upgrades that are expected to be required as a result of the Interconnection Request(s) and a non-binding, good faith estimate of cost responsibility and a non-binding, good faith estimated time to construct.

In addition to the information provided in the interim Transitional Cluster Study Report, the final Transitional Cluster Study Report shall provide a description of, estimated cost of, and schedule for construction of the Transmission Provider's Interconnection Facilities and Network Upgrades required to interconnect the Generating Facility to the Transmission System that resolve issues identified in the interim Transitional Cluster Study Report.

The interim and final Transitional Cluster Study Reports shall be issued within three hundred (300) and three hundred sixty (360) Calendar Days of the Commission-approved effective date of this LGIP, respectively, and shall be posted on Transmission Provider's OASIS consistent with the posting of other

study results pursuant to Section 3.5.1 of this LGIP. Interconnection Customer shall have thirty (30) Calendar Days to comment on the interim Transitional Cluster Study Report, once it has been received.

After Transmission Provider issues the final Transitional Cluster Study Report, Interconnection Customer shall proceed pursuant to Section 11 of this LGIP. If Interconnection Customer withdraws its Interconnection Request or if Interconnection Customer's Generating Facility otherwise does not reach Commercial Operation, a Withdrawal Penalty will be imposed on Interconnection Customer equal to nine (9) times Interconnection Customer's total study cost incurred since entering the Transmission Provider's interconnection queue (including the cost of studies conducted under Section 5 of this LGIP).

5.1.1.3 If an LGIA has been submitted to FERC for approval before the effective date of the LGIP, then the LGIA would be grandfathered.

5.1.2 Transition Period

To the extent necessary, Transmission Provider and Interconnection Customers with an outstanding request (i.e., an Interconnection Request for which an LGIA has not been submitted to FERC for approval as of the effective date of this LGIP) shall transition to this LGIP within a reasonable period of time not to exceed sixty (60) Calendar Days. The use of the term "outstanding request" herein shall mean any Interconnection Request, on the effective date of this LGIP: (i) that has been submitted but not yet accepted by Transmission Provider; (ii) where the related interconnection agreement has not yet been submitted to FERC for approval in executed or unexecuted form, (iii) where the relevant Interconnection Study Agreements have not yet been executed, or (iv) where any of the relevant Interconnection Studies are in process but not yet completed. Any Interconnection Customer with an outstanding request as of the effective date of this LGIP may request a reasonable extension of any deadline, otherwise applicable, if necessary to avoid undue hardship or prejudice to its Interconnection Request. A reasonable extension shall be granted by Transmission Provider to the extent consistent with the intent and process provided for under this LGIP.]

5.2 New Transmission Provider

If Transmission Provider transfers control of its Transmission System to a successor Transmission Provider during the period when an Interconnection Request is pending, the original Transmission Provider shall transfer to the successor Transmission Provider any amount of the deposit or payment with interest thereon that exceeds the cost that it incurred to evaluate the request for interconnection. Any difference between such net amount and the deposit or payment required by this LGIP shall be paid by or refunded to the Interconnection Customer, as appropriate. The original Transmission Provider shall coordinate with the successor Transmission Provider to complete any Interconnection Study, as appropriate, that the original Transmission

Provider has begun but has not completed. If Transmission Provider has tendered a draft LGIA to Interconnection Customer but Interconnection Customer has not either executed the LGIA or requested the filing of an unexecuted LGIA with FERC, unless otherwise provided, Interconnection Customer must complete negotiations with the successor Transmission Provider.

Section 6. Interconnection Information Access [Feasibility Study]

6.1 Publicly Posted Interconnection Information

Transmission Provider shall maintain and make publicly available: (1) an interactive visual representation of the estimated incremental injection capacity (in megawatts) available at each point of interconnection in Transmission Provider's footprint under N-1 conditions, and (2) a table of metrics concerning the estimated impact of a potential Generating Facility on Transmission Provider's Transmission System based on a user-specified addition of a particular number of megawatts at a particular voltage level at a particular point of interconnection. At a minimum, for each transmission facility impacted by the user-specified megawatt addition, the following information will be provided in the table: (1) the distribution factor; (2) the megawatt impact (based on the megawatt values of the proposed Generating Facility and the distribution factor); (3) the percentage impact on each impacted transmission facility (based on the megawatt values of the proposed Generating Facility and the facility rating); (4) the percentage of power flow on each impacted transmission facility before the injection of the proposed project; (5) the percentage power flow on each impacted transmission facility after the injection of the proposed Generating Facility. These metrics must be calculated based on the power flow model of the Transmission System with the transfer simulated from each point of interconnection to the whole Transmission Provider's footprint (to approximate Network Resource Interconnection Service), and with the incremental capacity at each point of interconnection decremented by the existing and queued Generating Facilities (based on the existing or requested interconnection service limit of the generation). These metrics must be updated within thirty (30) Calendar Days after the completion of each Cluster Study and Cluster Restudy. This information must be publicly posted, without a password or a fee. The website will define all underlying assumptions, including the name of the most recent Cluster Study or Restudy used in the Base Case.

[6.1 Interconnection Feasibility Study Agreement

Simultaneously with the acknowledgement of a valid Interconnection Request Transmission Provider shall provide to Interconnection Customer an Interconnection Feasibility Study Agreement in the form of Appendix 2. The Interconnection Feasibility Study Agreement shall: specify that Interconnection Customer is responsible for the actual cost of the Interconnection Feasibility Study. Within five (5) Business

Days following the Scoping Meeting Interconnection Customer shall specify for inclusion in the attachment to the Interconnection Feasibility Study Agreement the Point(s) of Interconnection and any reasonable alternative Point(s) of Interconnection. Within five (5) Business Days following Transmission Provider's receipt of such designation, Transmission Provider shall tender to Interconnection Customer the Interconnection Feasibility Study Agreement signed by Transmission Provider, which includes a good faith estimate of the cost for completing the Interconnection Feasibility Study. Interconnection Customer shall execute and deliver to Transmission Provider the Interconnection Feasibility Study Agreement along with a \$10,000 deposit no later than thirty (30) Calendar Days after its receipt.

On or before the return of the executed Feasibility Study Agreement to Transmission Provider, Interconnection Customer shall provide the technical data called for in Appendix 1, Attachment A.

If the Interconnection Feasibility Study uncovers any unexpected result(s) not contemplated during the Scoping Meeting, a substitute Point of Interconnection identified by either Interconnection Customer or Transmission Provider, and acceptable to the other, such acceptance not to be unreasonably withheld, will be substituted for the designated Point of Interconnection specified above without loss of Queue Position, and Re-studies shall be completed pursuant to Section 6.4 as applicable. For the purpose of this Section 6.1, if Transmission Provider and Interconnection Customer cannot agree on the substituted Point of Interconnection, then Interconnection Customer may direct that one of the alternatives as specified in the Interconnection Feasibility Study Agreement, as specified pursuant to Section 3.4.4, shall be the substitute.

If Interconnection Customer and Transmission Provider agree to forgo the Interconnection Feasibility Study, Transmission Provider will initiate an Interconnection System Impact Study under Section 7 of this LGIP and apply the \$10,000 deposit towards the Interconnection System Impact Study.]

[6.2 Scope of Interconnection Feasibility Study

The Interconnection Feasibility Study shall preliminarily evaluate the feasibility of the proposed interconnection to the Transmission System.

The Interconnection Feasibility Study will consider the Base Case as well as all generating facilities (and with respect to (iii), any identified Network Upgrades) that, on the date the Interconnection Feasibility Study is commenced: (i) are directly interconnected to the Transmission System; (ii) are interconnected to Affected Systems and may have an impact on the Interconnection Request; (iii) have a pending higher queued Interconnection Request to interconnect to the Transmission System; and (iv) have no Queue Position but have executed an LGIA or requested that an unexecuted LGIA be filed with FERC. The Interconnection Feasibility Study will consist

of a power flow and short circuit analysis. The Interconnection Feasibility Study will provide a list of facilities and a non-binding good faith estimate of cost responsibility and a non-binding good faith estimated time to construct.]

[6.3 Interconnection Feasibility Study Procedures

Transmission Provider shall utilize existing studies to the extent practicable when it performs the study. Transmission Provider shall use Reasonable Efforts to complete the Interconnection Feasibility Study no later than forty-five (45) Calendar Days after Transmission Provider receives the fully executed Interconnection Feasibility Study Agreement. At the request of Interconnection Customer or at any time Transmission Provider determines that it will not meet the required time frame for completing the Interconnection Feasibility Study, Transmission Provider shall notify Interconnection Customer as to the schedule status of the Interconnection Feasibility Study. If Transmission Provider is unable to complete the Interconnection Feasibility Study within that time period, it shall notify Interconnection Customer and provide an estimated completion date with an explanation of the reasons why additional time is required. Upon request, Transmission Provider shall provide Interconnection Customer supporting documentation, workpapers and relevant power flow, short circuit and stability databases for the Interconnection Feasibility Study, subject to confidentiality arrangements consistent with Section 13.1.

Transmission Provider shall study the Interconnection Request at the level of service requested by the Interconnection Customer, unless otherwise required to study the full Generating Facility Capacity due to safety or reliability concerns.]

[6.3.1 Meeting With Transmission Provider

Within ten (10) Business Days of providing an Interconnection Feasibility Study report to Interconnection Customer, Transmission Provider and Interconnection Customer shall meet to discuss the results of the Interconnection Feasibility Study.]

[6.4 Re-Study

If Re-Study of the Interconnection Feasibility Study is required due to a higher queued project dropping out of the queue, or a modification of a higher queued project subject to Section 4.4, or re-designation of the Point of Interconnection pursuant to Section 6.1 Transmission Provider shall notify Interconnection Customer in writing. Such Re-Study shall take not longer than forty-five (45) Calendar Days from the date of the notice. Any cost of Re-Study shall be borne by the Interconnection Customer being re-studied.]

Section 7. [Interconnection System Impact] Cluster Study

7.1 [Interconnection System Impact] Cluster Study Agreement

[Unless otherwise agreed, pursuant to the Scoping Meeting provided in Section 3.4.4, simultaneously with the delivery of the Interconnection Feasibility Study to

Interconnection Customer] *No later than five (5) Business Days after the close of a Cluster Request Window*, Transmission Provider shall [provide] *tender to each* Interconnection Customer [an] *that submitted a valid Interconnection[System Impact] Request a Cluster Study Agreement in the form of Appendix 2[3] to this LGIP. The [Interconnection System Impact] Cluster Study Agreement shall [provide that] require Interconnection Customer [shall] to compensate Transmission Provider for the actual cost of the [Interconnection System Impact Study.]Cluster Study pursuant to Section 13.3 of this LGIP. The specifications, assumptions, or other provisions in the appendices of the Cluster Study Agreement provided pursuant to Section 7.1 of this LGIP shall be subject to change by Transmission Provider following the conclusion of the Scoping Meeting. [Within three (3) Business Days following the Interconnection Feasibility Study results meeting, Transmission Provider shall provide to Interconnection Customer a non-binding good faith estimate of the cost and timeframe for completing the Interconnection System Impact Study.]*

7.2 Execution of [Interconnection System Impact] Cluster Study Agreement

Interconnection Customer shall execute the [Interconnection System Impact] Cluster Study Agreement and deliver the executed [Interconnection System Impact] Cluster Study Agreement to Transmission Provider no later than [thirty (30) Calendar Days after its receipt along with demonstration of Site Control, and a \$50,000 deposit] *the close of the Customer Engagement Window.*

If Interconnection Customer does not provide all [such] *required* technical data when it delivers the [Interconnection System Impact] Cluster Study Agreement, Transmission Provider shall notify Interconnection Customer of the deficiency within five (5) Business Days of the receipt of the executed [Interconnection System Impact] Cluster Study Agreement and Interconnection Customer shall cure the deficiency within ten (10) Business Days of receipt of the notice, provided, however, such deficiency does not include failure to deliver the executed [Interconnection System Impact] Cluster Study Agreement or *Study Deposit.*

[If the Interconnection System Impact Study uncovers any unexpected result(s) not contemplated during the Scoping Meeting and the Interconnection Feasibility Study, a substitute Point of Interconnection identified by either Interconnection Customer or Transmission Provider, and acceptable to the other, such acceptance not to be unreasonably withheld, will be substituted for the designated Point of Interconnection specified above without loss of Queue Position, and restudies shall be completed pursuant to Section 7.6 as applicable. For the purpose of this Section 7.2, if Transmission Provider and Interconnection Customer cannot agree on the substituted Point of Interconnection, then Interconnection Customer may direct that one of the alternatives as specified in the Interconnection Feasibility Study Agreement,

as specified pursuant to Section 3.4.4, shall be the substitute.]

7.3 Scope of [Interconnection System Impact] Cluster Study

The [Interconnection System Impact] Cluster Study shall evaluate the impact of the proposed interconnection on the reliability of the Transmission System. The [Interconnection System Impact] Cluster Study will consider the Base Case as well as all Generating Facilities (and with respect to (iii) below, any identified Network Upgrades associated with such higher queued interconnection) that, on the date the [Interconnection System Impact] Cluster Study is commenced: (i) are directly interconnected to the Transmission System; (ii) are interconnected to Affected Systems and may have an impact on the Interconnection Request; (iii) have a pending higher queued Interconnection Request to interconnect to the Transmission System; and (iv) have no Queue Position but have executed an LGIA or requested that an unexecuted LGIA be filed with FERC.

For purposes of determining necessary Interconnection Facilities and Network Upgrades, the Cluster Study shall use the level of Interconnection Service requested by Interconnection Customers in the Cluster, except where the Transmission Provider otherwise determines that it must study the full Generating Facility Capacity due to safety or reliability concerns.

The [Interconnection System Impact] Cluster Study will consist of [a short circuit analysis, a] power flow, stability [analysis, and a power flow analysis. The Interconnection System Impact Study], and short circuit analyses, the results of which are documented in a single Cluster Study Report, as applicable. At the conclusion of the Cluster Study, Transmission Provider shall issue a Cluster Study Report. The Cluster Study Report will state the assumptions upon which it is based; state the results of the analyses; and provide the requirements or potential impediments to providing the requested interconnection service, including a preliminary indication of the cost and length of time that would be necessary to correct any problems identified in those analyses and implement the interconnection. [For purposes of determining necessary] The Cluster Study Report shall identify the Interconnection Facilities and Network Upgrades [], the System Impact Study shall consider the level of Interconnection Service requested by the Interconnection Customer, unless otherwise required to study the full Generating Facility Capacity due to safety or reliability concerns.] expected to be required to reliably interconnect the Generating Facilities in that Cluster Study at the requested Interconnection Service level and shall provide non-binding cost estimates for required Network Upgrades. The Cluster Study Report shall identify each Interconnection Customer's estimated allocated costs for Interconnection Facilities and Network Upgrades pursuant to the method in Section 4.2.1 of this LGIP. Transmission Provider shall hold an open stakeholder meeting pursuant to Section 7.4 of this LGIP.

For purposes of determining necessary Interconnection Facilities and Network Upgrades, the Cluster Study shall use operating assumptions (i.e., whether the interconnecting Generating Facility will or will not charge at peak load) that reflect the proposed charging behavior of a Generating Facility that includes at least one electric storage resource as requested by Interconnection Customer, unless Transmission Provider determines that Good Utility Practice, including Applicable Reliability Standards, otherwise requires the use of different operating assumptions. Transmission Provider may require the inclusion of control technologies sufficient to limit the operation of the Generating Facility per the operating assumptions as set forth in the Interconnection Request and to respond to dispatch instructions by Transmission Provider. As determined by Transmission Provider, Interconnection Customer may be subject to testing and validation of those control technologies consistent with Article 6 of the LGIA.

[The Interconnection System Impact Study] The Cluster Study Report will provide a list of facilities that are required as a result of the Interconnection [Request] Requests within the Cluster and a non-binding good faith estimate of cost responsibility and a non-binding good faith estimated time to construct.

Upon issuance of a Cluster Study Report, or Cluster Restudy Report, if any, Transmission Provider shall simultaneously tender a draft Interconnection Facilities Study Agreement to each Interconnection Customer within the Cluster, subject to the conditions in Section 8.1 of this LGIP.

The Cluster Study shall evaluate the use of static synchronous compensators, static VAR compensators, advanced power flow control devices, transmission switching, synchronous condensers, voltage source converters, advanced conductors, and tower lifting. Transmission Provider shall determine whether the above technologies should be used, consistent with Good Utility Practice and other applicable regulatory requirements. Transmission Provider shall include an explanation of the results of the Transmission Provider's evaluation for each technology in the Cluster Study Report.

7.4 [Interconnection System Impact] Cluster Study Procedures

Transmission Provider shall coordinate the [Interconnection System Impact] Cluster Study with any Affected System that is affected by the Interconnection Request pursuant to Section 3.6 [above] of this LGIP. Transmission Provider shall utilize existing studies to the extent practicable when it performs the [study] Cluster Study. Interconnection Requests for a Cluster Study may be submitted only within the Cluster Request Window and Transmission Provider shall [use Reasonable Efforts to complete the Interconnection System Impact Study within ninety (90) Calendar Days after the receipt of the Interconnection System Impact Study Agreement or notification to proceed, study payment, and technical data. If Transmission Provider uses Clustering, Transmission Provider shall use Reasonable Efforts to deliver a completed Interconnection System

Impact Study within ninety (90) Calendar Days after the close of the Queue Cluster Window.] initiate the Cluster Study process pursuant to Section 7 of this LGIP.

Transmission Provider shall complete the Cluster Study within one hundred fifty (150) Calendar Days of the close of the Customer Engagement Window.

Within ten (10) Business Days of simultaneously furnishing a Cluster Study Report to each Interconnection Customer within the Cluster and posting such report on OASIS, Transmission Provider shall convene a Cluster Study Report Meeting.

At the request of Interconnection Customer or at any time Transmission Provider determines that it will not meet the required time frame for completing the [Interconnection System Impact] Cluster Study, Transmission Provider shall notify Interconnection Customers as to the schedule status of the [Interconnection System Impact] Cluster Study. If Transmission Provider is unable to complete the [Interconnection System Impact] Cluster Study within the time period, it shall notify Interconnection Customers and provide an estimated completion date with an explanation of the reasons why additional time is required. Upon request, Transmission Provider shall provide to Interconnection Customers all supporting documentation, workpapers and relevant pre-Interconnection Request and post-Interconnection Request power flow, short circuit and stability databases for the [Interconnection System Impact] Cluster Study, subject to confidentiality arrangements consistent with Section 13.1 of this LGIP.

7.5 Cluster Study Restudies

(1) Within twenty (20) Calendar Days after the Cluster Study Report Meeting, Interconnection Customer must provide the following:

(a) Demonstration of continued Site Control pursuant to Section 3.4.2(iii) of this LGIP; and

(b) An additional deposit that brings the total Commercial Readiness Deposit submitted to Transmission Provider to five percent (5%) of the Interconnection Customer's Network Upgrade cost assignment identified in the Cluster Study in the form of an irrevocable letter of credit or cash. Transmission Provider shall refund the deposit to Interconnection Customer upon withdrawal in accordance with Section 3.7 of this LGIP.

Interconnection Customer shall promptly inform Transmission Provider of any material change to Interconnection Customer's demonstration of Site Control under Section 3.4.2(iii) of this LGIP. Upon Transmission Provider determining that Interconnection Customer no longer satisfies the Site Control requirement, Transmission Provider shall notify Interconnection Customer. Within ten (10) Business Days of such notification, Interconnection Customer must demonstrate compliance with the applicable requirement subject to Transmission Provider's approval, not to be unreasonably withheld. Absent such demonstration, Transmission Provider shall deem the subject Interconnection Request

withdrawn pursuant to Section 3.7 of this LGIP.

(2) If no Interconnection Customer withdraws from the Cluster after completion of the Cluster Study or Cluster Restudy or is deemed withdrawn pursuant to Section 3.7 of this LGIP after completion of the Cluster Study or Cluster Restudy, Transmission Provider shall notify Interconnection Customers in the Cluster that a Cluster Restudy is not required.

(3) If one or more Interconnection Customers withdraw from the Cluster or are deemed withdrawn pursuant to Section 3.7 of this LGIP, Transmission Provider shall determine if a Cluster Restudy is necessary within thirty (30) Calendar Days after the Cluster Study Report Meeting. If Transmission Provider determines a Cluster Restudy is not necessary, Transmission Provider shall notify Interconnection Customers in the Cluster that a Cluster Restudy is not required and Transmission Provider shall provide an updated Cluster Study Report within thirty (30) Calendar Days of such determination.

(4) If one or more Interconnection Customers withdraws from the Cluster or is deemed withdrawn pursuant to Section 3.7 of this LGIP, and Transmission Provider determines a Cluster Restudy is necessary as a result, Transmission Provider shall notify Interconnection Customers in the Cluster and post on OASIS that a Cluster Restudy is required within thirty (30) Calendar Days after the Cluster Study Report Meeting. Transmission Provider shall continue with such restudies until Transmission Provider determines that no further restudies are required. If an Interconnection Customer withdraws or is deemed withdrawn pursuant to Section 3.7 of this LGIP during the Interconnection Facilities Study, or after other Interconnection Customers in the same Cluster have executed LGIAs, or requested that unexecuted LGIAs be filed, and Transmission Provider determines a Cluster Restudy is necessary, the Cluster shall be restudied.

(5) The scope of any Cluster Restudy shall be consistent with the scope of an initial Cluster Study pursuant to Section 7.3 of this LGIP. Transmission Provider shall complete the Cluster Restudy within one hundred fifty (150) Calendar Days of the Transmission Provider informing the Interconnection Customers in the cluster that restudy is needed. The results of the Cluster Restudy shall be combined into a single report (Cluster Restudy Report). Transmission Provider shall hold a meeting with the Interconnection Customers in the cluster (Cluster Restudy Report Meeting) within ten (10) Business Days of simultaneously furnishing the Cluster Restudy Report to each Interconnection Customer in the Cluster Restudy and publishing the Cluster Restudy Report on OASIS.

If additional restudies are required, Interconnection Customer and Transmission Provider shall follow the procedures of this Section 7.5 of this LGIP until such time that Transmission Provider determines that no further restudies are required. Transmission Provider shall notify each Interconnection Customer within the Cluster when no further restudies are required.

[Meeting With Transmission Provider

Within ten (10) Business Days of providing an Interconnection System Impact Study report to Interconnection Customer, Transmission Provider and Interconnection Customer shall meet to discuss the results of the Interconnection System Impact Study.

7.6 Re-Study

If Re-Study of the Interconnection System Impact Study is required due to a higher queued project dropping out of the queue, or a modification of a higher queued project subject to 4.4, or re-designation of the Point of Interconnection pursuant to Section 7.2 Transmission Provider shall notify Interconnection Customer in writing. Such Re-Study shall take no longer than sixty (60) Calendar Days from the date of notice. Any cost of Re-Study shall be borne by the Interconnection Customer being re-studied.]

Section 8. Interconnection Facilities Study

8.1 Interconnection Facilities Study Agreement

Simultaneously with the delivery of the [Interconnection System Impact Study to Interconnection Customer] Cluster Study Report, or Cluster Restudy Report if applicable, Transmission Provider shall provide to Interconnection Customer an Interconnection Facilities Study Agreement in the form of Appendix 3[4] to this LGIP. [The Interconnection Facilities Study Agreement shall provide that] Interconnection Customer shall compensate Transmission Provider for the actual cost of the Interconnection Facilities Study. Within five (5) Business Days following the Cluster Report Meeting or Cluster Restudy Report Meeting if applicable, [Interconnection System Impact Study results meeting], Transmission Provider shall provide to Interconnection Customer a non-binding good faith estimate of the cost and timeframe for completing the Interconnection Facilities Study.

Interconnection Customer shall execute the Interconnection Facilities Study Agreement and deliver the executed Interconnection Facilities Study Agreement to Transmission Provider within thirty (30) Calendar Days after its receipt, together with [the]:

(1) any required technical data [and the greater of \$100,000 or Interconnection Customer's portion of the estimated monthly cost of conducting the Interconnection Facilities Study.];

(2) Demonstration of one-hundred percent (100%) Site Control or demonstration of a regulatory limitation and applicable deposit in lieu of Site Control provided to the Transmission Provider in accordance with section 3.4.2 of this LGIP; and

(3) An additional deposit that brings the total Commercial Readiness Deposit submitted to the Transmission Provider to ten percent (10%) of the Interconnection Customer's Network Upgrade cost assignment identified in the Cluster Study or Cluster Restudy, if applicable, in the form of an irrevocable letter of credit or cash. Transmission Provider shall refund the deposit to Interconnection Customer upon withdrawal in accordance with Section 3.7 of this LGIP.

Interconnection Customer shall promptly inform Transmission Provider of any material change to Interconnection Customer's demonstration of Site Control under Section 3.4.2(iii) of this LGIP. Upon Transmission Provider determining separately that Interconnection Customer no longer satisfies the Site Control requirement, Transmission Provider shall notify Interconnection Customer. Within ten (10) Business Days of such notification, Interconnection Customer must demonstrate compliance with the applicable requirement subject to Transmission Provider's approval, not to be unreasonably withheld. Absent such demonstration, Transmission Provider shall deem the subject Interconnection Request withdrawn pursuant to Section 3.7 of this LGIP.

[8.1.1 Transmission Provider shall invoice Interconnection Customer on a monthly basis for the work to be conducted on the Interconnection Facilities Study each month. Interconnection Customer shall pay invoiced amounts within thirty (30) Calendar Days of receipt of invoice. Transmission Provider shall continue to hold the amounts on deposit until settlement of the final invoice.]

8.2 Scope of Interconnection Facilities Study

The Interconnection Facilities Study shall be specific to each Interconnection Request and performed on an individual, i.e., non-clustered, basis. The Interconnection Facilities Study shall specify and provide a non-binding estimate of the cost of the equipment, engineering, procurement and construction work needed to implement the conclusions of the [Interconnection System Impact Study] Cluster Study Report (and any associated restudies) in accordance with Good Utility Practice to physically and electrically connect the Interconnection [Facility] Facilities to the Transmission System. The Interconnection Facilities Study shall also identify the electrical switching configuration of the connection equipment, including, without limitation: the transformer, switchgear, meters, and other station equipment; the nature and estimated cost of any Transmission Provider's Interconnection Facilities and Network Upgrades necessary to accomplish the interconnection; and an estimate of the time required to complete the construction and installation of such facilities. The Interconnection Facilities Study will also identify any potential control equipment for [requests for] (1) requests for Interconnection Service that are lower than the Generating Facility Capacity[,], and/or (2) requests to study a Generating Facility that includes at least one electric storage resource using operating assumptions (i.e., whether the interconnecting Generating Facility will or will not charge at peak load) that reflect its proposed charging behavior, as requested by Interconnection Customer, unless Transmission Provider determines that Good Utility Practice, including Applicable Reliability Standards, otherwise require the use of different operating assumptions.

8.3 Interconnection Facilities Study Procedures

Transmission Provider shall coordinate the Interconnection Facilities Study with any Affected System pursuant to Section 3.6 of this LGIP. Transmission Provider shall utilize existing studies to the extent practicable in performing the Interconnection Facilities Study. Transmission Provider shall [use Reasonable Efforts to] complete the study and issue a draft Interconnection Facilities Study [r]Report to Interconnection Customer within the following number of days after receipt of an executed Interconnection Facilities Study Agreement: ninety (90) Calendar Days after receipt of an executed Interconnection Facilities Study Agreement, with no more than a $\pm$ 20 percent cost estimate contained in the report; or one hundred eighty (180) Calendar Days, if Interconnection Customer requests a $\pm$ 10 percent cost estimate.

At the request of Interconnection Customer or at any time Transmission Provider determines that it will not meet the required time frame for completing the Interconnection Facilities Study, Transmission Provider shall notify Interconnection Customer as to the schedule status of the Interconnection Facilities Study. If Transmission Provider is unable to complete the Interconnection Facilities Study and issue a draft Interconnection Facilities Study [r]Report within the time required, it shall notify Interconnection Customer and provide an estimated completion date and an explanation of the reasons why additional time is required.

Interconnection Customer may, within thirty (30) Calendar Days after receipt of the draft Interconnection Facilities Study [r]Report, provide written comments to Transmission Provider, which Transmission Provider shall include in completing the final Interconnection Facilities Study [r]Report. Transmission Provider shall issue the final Interconnection Facilities Study [r]Report within fifteen (15) Business Days of receiving Interconnection Customer's comments or promptly upon receiving Interconnection Customer's statement that it will not provide comments. Transmission Provider may reasonably extend such fifteen-[day] (15) Business Day period upon notice to Interconnection Customer if Interconnection Customer's comments require Transmission Provider to perform additional analyses or make other significant modifications prior to the issuance of the final Interconnection Facilities Study Report. Upon request, Transmission Provider shall provide Interconnection Customer supporting documentation, workpapers, and databases or data developed in the preparation of the Interconnection Facilities Study, subject to confidentiality arrangements consistent with Section 13.1 of this LGIP.

8.4 Meeting With Transmission Provider

Within ten (10) Business Days of providing a draft Interconnection Facilities Study [r]Report to Interconnection Customer, Transmission Provider and Interconnection Customer shall meet to discuss the results of the Interconnection Facilities Study.

8.5 [Re-Study]Restudy

If [Re-Study]Restudy of the Interconnection Facilities Study is required due to a higher or equally queued project [dropping out of] withdrawing from the queue or a modification of a higher or equally queued project pursuant to Section 4.4 of this LGIP, Transmission Provider shall so notify Interconnection Customer in writing. [Such]Transmission Provider shall ensure that such [Re-Study]Restudy [shall] takes no longer than sixty (60) Calendar Days from the date of notice. Except as provided in Section 3.7 of this LGIP in the case of withdrawing Interconnection Customers, any cost of [Re-Study]Restudy shall be borne by [the]Interconnection Customer being [re-studied]restudied.

Section 9 [Engineering & Procurement ('E&P') Agreement] Affected System Study

9.1 Applicability

This Section 9 outlines the duties of Transmission Provider when it receives notification that an Affected System Interconnection Customer's proposed interconnection to its host transmission provider may impact Transmission Provider's Transmission System.

9.2 Response to Initial Notification

When Transmission Provider receives notification that an Affected System Interconnection Customer's proposed interconnection to its host transmission provider may impact Transmission Provider's Transmission System, Transmission Provider must respond in writing within twenty (20) Business Days whether it intends to conduct an Affected System Study.

By fifteen (15) Business Days after the Transmission Provider responds with its affirmative intent to conduct an Affected System Study, Transmission Provider shall share with Affected System Interconnection Customer(s) and the Affected System Interconnection Customer's host transmission provider a non-binding good faith estimate of the cost and the schedule to complete the Affected System Study.

9.3 Affected System Queue Position

Transmission Provider must assign an Affected System Queue Position to Affected System Interconnection Customer(s) that require(s) an Affected System Study. Such Affected System Queue Position shall be assigned based upon the date of execution of the Affected System Study Agreement. Relative to the Transmission Provider's Interconnection Customers, this Affected System Queue Position shall be higher-queued than any Cluster that has not yet received its Cluster Study Report and shall be lower-queued than any Cluster that has already received its Cluster Study Report. Consistent with Section 9.7 of this LGIP, Transmission Provider shall study the Affected System Interconnection Customer(s) via Clustering, and all Affected System Interconnection Customers studied in the same Cluster under Section 9.7 shall be equally queued. For Affected System Interconnection Customers that are equally queued, the Affected System Queue Position

shall have no bearing on the assignment of Affected System Network Upgrades identified in the applicable Affected System Study. The costs of the Affected System Network Upgrades shall be allocated among the Affected System Interconnection Customers in accordance with Section 9.9 of this LGIP.

9.4 Affected System Study Agreement/Multiparty Affected System Study Agreement

Unless otherwise agreed, Transmission Provider shall provide to Affected System Interconnection Customer(s) an Affected System Study Agreement/Multiparty Affected System Study Agreement, in the form of Appendix 9 or Appendix 10 to this LGIP, as applicable, within ten (10) Business Days of Transmission Provider sharing the schedule for the Affected System Study per Section 9.2 of this LGIP.

Upon Affected System Interconnection Customer(s)' receipt of the Affected System Study Report, Affected System Interconnection Customer(s) shall compensate Transmission Provider for the actual cost of the Affected System Study. Any difference between the study deposit and the actual cost of the Affected System Study shall be paid by or refunded to the Affected System Interconnection Customer(s). Any invoices for the Affected System Study shall include a detailed and itemized accounting of the cost of the study. Affected System Interconnection Customer(s) shall pay any excess costs beyond the already-paid Affected System Study deposit or be reimbursed for any costs collected over the actual cost of the Affected System Study within thirty (30) Calendar Days of receipt of an invoice thereof. If Affected System Interconnection Customer(s) fail to pay such undisputed costs within the time allotted, it shall lose its Affected System Queue Position. Transmission Provider shall notify Affected System Interconnection Customer's host transmission provider of such failure to pay.

9.5 Execution of Affected System Study Agreement/Multiparty Affected System Study Agreement

Affected System Interconnection Customer(s) shall execute the Affected System Study Agreement/Multiparty Affected System Study Agreement, deliver the executed Affected System Study Agreement/Multiparty Affected System Study Agreement to Transmission Provider, and provide the Affected System Study deposit within ten (10) Business Days of receipt.

If Affected System Interconnection Customer does not provide all required technical data when it delivers the Affected System Study Agreement/Multiparty Affected System Study Agreement, Transmission Provider shall notify the deficient Affected System Interconnection Customer, as well as the host transmission provider with which Affected System Interconnection Customer seeks to interconnect, of the deficiency within five (5) Business Days of the receipt of the executed Affected System Study Agreement/Multiparty Affected System Study Agreement and the deficient Affected System Interconnection Customer shall cure the deficiency within ten (10) Business Days of receipt of the notice: provided, however, that

such deficiency does not include failure to deliver the executed Affected System Study Agreement/Multiparty Affected System Study Agreement or deposit for the Affected System Study Agreement/Multiparty Affected System Study Agreement. If Affected System Interconnection Customer does not cure the deficiency or fails to execute the Affected System Study Agreement/Multiparty Affected System Study Agreement or provide the deposit, the Affected System Interconnection Customer shall lose its Affected System Queue Position.

9.6 Scope of Affected System Study

The Affected System Study shall evaluate the impact that any Affected System Interconnection Customer's proposed interconnection to another transmission provider's transmission system will have on the reliability of Transmission Provider's Transmission System. The Affected System Study shall consider the Base Case as well as all Generating Facilities (and with respect to (iii) below, any identified Affected System Network Upgrades associated with such higher-queued Interconnection Request) that, on the date the Affected System Study is commenced: (i) are directly interconnected to Transmission Provider's Transmission System; (ii) are directly interconnected to another transmission provider's transmission system and may have an impact on Affected System Interconnection Customer's interconnection request; (iii) have a pending higher-queued Interconnection Request to interconnect to Transmission Provider's Transmission System; and (iv) have no queue position but have executed an LGIA or requested that an unexecuted LGIA be filed with FERC. Transmission Provider has no obligation to study impacts of Affected System Interconnection Customers of which it is not notified.

The Affected System Study shall consist of a power flow, stability, and short circuit analysis. The Affected System Study will: state the assumptions upon which it is based; state the results of the analyses; and provide the potential impediments to Affected System Interconnection Customer's receipt if interconnection service on its host transmission provider's transmission system, including a preliminary indication of the cost and length of time that would be necessary to correct any problems identified in those analyses and implement the interconnection. For purposes of determining necessary Affected System Network Upgrades, the Affected System Study shall consider the level of interconnection service requested in megawatts by Affected System Interconnection Customer, unless otherwise required to study the full generating facility capacity due to safety or reliability concerns. The Affected System Study shall provide a list of facilities that are required as a result of Affected System Interconnection Customer's proposed interconnection to another transmission provider's system, a non-binding good faith estimate of cost responsibility, and a non-binding good faith estimated time to construct. The Affected System Study may consist of a system impact study, a facilities study, or some combination thereof.

9.7 Affected System Study Procedures

Transmission Provider shall use Clustering in conducting the Affected System Study and shall use existing studies to the extent practicable, when multiple Affected System Interconnection Customers that are part of a single Cluster may cause the need for Affected System Network Upgrades. Transmission Provider shall complete the Affected System Study and provide the Affected System Study Report to Affected System Interconnection Customer(s) and the host transmission provider with whom interconnection has been requested within one hundred fifty (150) Calendar Days after the receipt of the Affected System Study Agreement and deposit.

At the request of Affected System Interconnection Customer, Transmission Provider shall notify Affected System Interconnection Customer as to the status of the Affected System Study. If Transmission Provider is unable to complete the Affected System Study within the requisite time period, it shall notify Affected System Interconnection Customer(s), as well as the transmission provider with which Affected System Interconnection Customer seeks to interconnect, and shall provide an estimated completion date with an explanation of the reasons why additional time is required. If Transmission Provider does not meet the deadlines in this section, Transmission Provider shall be subject to the financial penalties as described in Section 3.9 of this LGIP. Upon request, Transmission Provider shall provide Affected System Interconnection Customer(s) with all supporting documentation, workpapers and relevant power flow, short circuit and stability databases for the Affected System Study, subject to confidentiality arrangements consistent with Section 13.1 of this LGIP.

Transmission Provider must study an Affected System Interconnection Customer using the Energy Resource Interconnection Service modeling standard used for Interconnection Requests on its own Transmission System, regardless of the level of interconnection service that Affected System Interconnection Customer is seeking from the host transmission provider with whom it seeks to interconnect.

9.8 Meeting With Transmission Provider

Within ten (10) Business Days of providing the Affected System Study Report to Affected System Interconnection Customer(s), Transmission Provider and Affected System Interconnection Customer(s) shall meet to discuss the results of the Affected System Study.

9.9 Affected System Cost Allocation

Transmission Provider shall allocate Affected System Network Upgrade costs identified during the Affected System Study to Affected System Interconnection Customer(s) using a proportional impact method, consistent with Section 4.2.1(1)(b) of this LGIP.

9.10 Tender of Affected Systems Facilities Construction Agreement/Multiparty Affected System Facilities Construction Agreement

Transmission Provider shall tender to Affected System Interconnection Customer(s) an Affected System Facilities Construction Agreement/Multiparty Affected System Facilities Construction Agreement, as applicable, in the form of Appendix 11 or 12 to this LGIP, within thirty (30) Calendar Days of providing the Affected System Study Report. Within ten (10) Business Days of the receipt of the Affected System Facilities Construction Agreement/Multiparty Affected System Facilities Construction Agreement, the Affected System Interconnection Customer(s) must execute the agreement or request the agreement to be filed unexecuted with FERC. Transmission Provider shall execute the agreement or file the agreement unexecuted within five (5) Business Days after receiving direction from Affected System Interconnection Customer(s). Affected System Interconnection Customer's failure to execute the Affected System Facilities Construction Agreement/Multiparty Affected System Facilities Construction Agreement, or failure to request the agreement to be filed unexecuted with FERC, shall result in the loss of its Affected System Queue Position.

9.11 Restudy

If restudy of the Affected System Study is required, Transmission Provider shall notify Affected System Interconnection Customer(s) in writing within thirty (30) Calendar Days of discovery of the need for restudy. Such restudy shall take no longer than sixty (60) Calendar Days from the date of notice. Any cost of restudy shall be borne by the Affected System Interconnection Customer(s) being restudied.

[Prior to executing an LGIA, an Interconnection Customer may, in order to advance the implementation of its interconnection, request and Transmission Provider shall offer the Interconnection Customer, an E&P Agreement that authorizes Transmission Provider to begin engineering and procurement of long lead-time items necessary for the establishment of the interconnection. However, Transmission Provider shall not be obligated to offer an E&P Agreement if Interconnection Customer is in Dispute Resolution as a result of an allegation that Interconnection Customer has failed to meet any milestones or comply with any prerequisites specified in other parts of the LGIP. The E&P Agreement is an optional procedure and it will not alter the Interconnection Customer's Queue Position or In-Service Date. The E&P Agreement shall provide for Interconnection Customer to pay the cost of all activities authorized by Interconnection Customer and to make advance payments or provide other satisfactory security for such costs.

Interconnection Customer shall pay the cost of such authorized activities and any cancellation costs for equipment that is already ordered for its interconnection, which cannot be mitigated as hereafter described, whether or not such items or equipment later become unnecessary. If Interconnection Customer withdraws its

application for interconnection or either Party terminates the E&P Agreement, to the extent that the equipment ordered can be canceled under reasonable terms, Interconnection Customer shall be obligated to pay the associated cancellation costs. To the extent that the equipment cannot be reasonably canceled, Transmission Provider may elect: (i) to take title to the equipment, in which event Transmission Provider shall refund Interconnection Customer any amounts paid by Interconnection Customer for such equipment and shall pay the cost of delivery of such equipment, or (ii) to transfer title to and deliver such equipment to Interconnection Customer, in which event Interconnection Customer shall pay any unpaid balance and cost of delivery of such equipment.]

Section 10. Optional Interconnection Study

10.1 Optional Interconnection Study Agreement

On or after the date when Interconnection Customer receives [Interconnection System Impact Study] *Cluster Study* results, Interconnection Customer may request, and Transmission Provider shall perform a reasonable number of Optional Studies. The request shall describe the assumptions that Interconnection Customer wishes Transmission Provider to study within the scope described in Section 10.2. Within five (5) Business Days after receipt of a request for an Optional Interconnection Study, Transmission Provider shall provide to Interconnection Customer an Optional Interconnection Study Agreement in the form of Appendix 4[5].

The Optional Interconnection Study Agreement shall: (i) specify the technical data that Interconnection Customer must provide for each phase of the Optional Interconnection Study, (ii) specify Interconnection Customer's assumptions as to which Interconnection Requests with earlier queue priority dates will be excluded from the Optional Interconnection Study case and assumptions as to the type of interconnection service for Interconnection Requests remaining in the Optional Interconnection Study case, and (iii) Transmission Provider's estimate of the cost of the Optional Interconnection Study. To the extent known by Transmission Provider, such estimate shall include any costs expected to be incurred by any Affected System whose participation is necessary to complete the Optional Interconnection Study. Notwithstanding the above, Transmission Provider shall not be required as a result of an Optional Interconnection Study request to conduct any additional Interconnection Studies with respect to any other Interconnection Request.

Interconnection Customer shall execute the Optional Interconnection Study Agreement within ten (10) Business Days of receipt and deliver the Optional Interconnection Study Agreement, the technical data and a \$10,000 deposit to Transmission Provider.

10.2 Scope of Optional Interconnection Study

The Optional Interconnection Study will consist of a sensitivity analysis based on the

assumptions specified by Interconnection Customer in the Optional Interconnection Study Agreement. The Optional Interconnection Study will also identify Transmission Provider's Interconnection Facilities and the Network Upgrades, and the estimated cost thereof, that may be required to provide transmission service or Interconnection Service based upon the results of the Optional Interconnection Study. The Optional Interconnection Study shall be performed solely for informational purposes. Transmission Provider shall use Reasonable Efforts to coordinate the study with any Affected Systems that may be affected by the types of Interconnection Services that are being studied. Transmission Provider shall utilize existing studies to the extent practicable in conducting the Optional Interconnection Study.

10.3 Optional Interconnection Study Procedures

The executed Optional Interconnection Study Agreement, the prepayment, and technical and other data called for therein must be provided to Transmission Provider within ten (10) Business Days of Interconnection Customer receipt of the Optional Interconnection Study Agreement. Transmission Provider shall use Reasonable Efforts to complete the Optional Interconnection Study within a mutually agreed upon time period specified within the Optional Interconnection Study Agreement. If Transmission Provider is unable to complete the Optional Interconnection Study within such time period, it shall notify Interconnection Customer and provide an estimated completion date and an explanation of the reasons why additional time is required. Any difference between the study payment and the actual cost of the study shall be paid to Transmission Provider or refunded to Interconnection Customer, as appropriate. Upon request, Transmission Provider shall provide Interconnection Customer supporting documentation and workpapers and databases or data developed in the preparation of the Optional Interconnection Study, subject to confidentiality arrangements consistent with Section 13.1.

Section 11. Standard Large Generator Interconnection Agreement (LGIA)

11.1 Tender

Interconnection Customer shall tender comments on the draft Interconnection Facilities Study Report within thirty (30) Calendar Days of receipt of the report. Within thirty (30) Calendar Days after the comments are submitted or after Interconnection Customer notifies Transmission Provider that it will not provide comments, Transmission Provider shall tender a draft LGIA, together with draft appendices. The draft LGIA shall be in the form of Transmission Provider's FERC-approved standard form LGIA, which is in Appendix 5[6]. Interconnection Customer shall execute and return the LGIA and completed draft appendices within thirty (30) Calendar Days, unless (1) the sixty (60) Calendar Day negotiation period under Section 11.2 of this LGIP has commenced, or (2) LGIA execution, or filing unexecuted, has

been delayed to await the Affected System Study Report pursuant to Section 11.2.1 of this LGIP.

11.2 Negotiation

Notwithstanding Section 11.1, at the request of Interconnection Customer Transmission Provider shall begin negotiations with Interconnection Customer concerning the appendices to the LGIA at any time after Interconnection Customer executes the Interconnection Facilities Study Agreement. Transmission Provider and Interconnection Customer shall negotiate concerning any disputed provisions of the appendices to the draft LGIA for not more than sixty (60) Calendar Days after tender of the final Interconnection Facilities Study Report. If Interconnection Customer determines that negotiations are at an impasse, it may request termination of the negotiations at any time after tender of the draft LGIA pursuant to Section 11.1 and request submission of the unexecuted LGIA with FERC or initiate Dispute Resolution procedures pursuant to Section 13.5. If Interconnection Customer requests termination of the negotiations, but within sixty (60) Calendar Days thereafter fails to request either the filing of the unexecuted LGIA or initiate Dispute Resolution, it shall be deemed to have withdrawn its Interconnection Request. Unless otherwise agreed by the Parties, if Interconnection Customer has not executed the LGIA, requested filing of an unexecuted LGIA, or initiated Dispute Resolution procedures pursuant to Section 13.5 within sixty (60) Calendar Days of tender of draft LGIA, it shall be deemed to have withdrawn its Interconnection Request. Transmission Provider shall provide to Interconnection Customer a final LGIA within fifteen (15) Business Days after the completion of the negotiation process.

11.2.1 Delay in LGIA Execution, or Filing Unexecuted, To Await Affected System Study Report

If Interconnection Customer has not received its Affected System Study Report from the Affected System Operator prior to the date that it would be required to execute its LGIA (or request that its LGIA be filed unexecuted) pursuant to Section 11.1 of this LGIP, Transmission Provider shall, upon request of Interconnection Customer, extend this deadline to thirty (30) Calendar Days after Interconnection Customer's receipt of the Affected System Study Report. If Interconnection Customer, after delaying LGIA execution, or requesting unexecuted filing, to await Affected System Study Results, decides to proceed to LGIA execution, or request unexecuted filing, without those results, it may notify Transmission Provider of its intent to proceed with LGIA execution (or request that its LGIA be filed unexecuted) pursuant to Section 11.1 of this LGIP. If Transmission Provider determines that further delay to the LGIA execution date would cause a material impact on the cost or timing of an equal- or lower-queued interconnection customer, Transmission Provider must notify Interconnection Customer of such impacts and set the deadline to execute the LGIA (or

request that the LGIA be filed unexecuted) to thirty (30) Calendar Days after such notice is provided.

11.3 Execution and Filing

Simultaneously with submitting the executed LGIA to Transmission Provider, or within ten (10) Business Days after the Interconnection Customer requests that the Transmission Provider file the LGIA unexecuted at the Commission, [Within fifteen (15) Business Days after receipt of the final executed LGIA,] Interconnection Customer shall provide Transmission Provider with [(A) reasonable evidence that continued Site Control or (B) posting of \$250,000, non-refundable additional security, which shall be applied toward future construction costs](1) demonstration of continued Site Control pursuant to Section 8.1(2) of this LGIP; and (2) the LGIA Deposit equal to twenty percent (20%) of Interconnection Customer's estimated Network Upgrade costs identified in the draft LGIA minus the total amount of Commercial Readiness Deposits that Interconnection Customer has provided to Transmission Provider for its Interconnection Request. Transmission Provider shall use LGIA Deposit as (or as a portion of) the Interconnection Customer's security required under LGIA Article 11.5. Interconnection Customer may not request to suspend its LGIA under LGIA Article 5.16 until Interconnection Customer has provided (1) and (2) to Transmission Provider. If Interconnection Customer fails to provide (1) and (2) to Transmission Provider within the thirty (30) Calendar Days allowed for returning the executed LGIA and appendices under LGIP Section 11.1, or within ten (10) Business Days after Interconnection Customer requests that Transmission Provider file the LGIA unexecuted at the Commission as allowed in this Section 11.3 of this LGIP, the Interconnection Request will be deemed withdrawn pursuant to Section 3.7 of this LGIP.

At the same time, Interconnection Customer also shall provide reasonable evidence that one or more of the following milestones in the development of the Large Generating Facility, at Interconnection Customer election, has been achieved (*unless such milestone is inapplicable due to the characteristics of the Generating Facility*): (i) the execution of a contract for the supply or transportation of fuel to the Large Generating Facility; (ii) the execution of a contract for the supply of cooling water to the Large Generating Facility; (iii) execution of a contract for the engineering for, procurement of major equipment for, or construction of, the Large Generating Facility; (iv) execution of a contract (*or comparable evidence*) for the sale of electric energy or capacity from the Large Generating Facility; or (v) application for an air, water, or land use permit.

Interconnection Customer shall either: (i) execute two originals of the tendered LGIA and return them to Transmission Provider; or (ii) request in writing that Transmission Provider file with FERC an LGIA in unexecuted form. As soon as practicable, but not later than ten (10) Business Days after receiving either the two executed originals of

the tendered LGIA (if it does not conform with a FERC-approved standard form of interconnection agreement) or the request to file an unexecuted LGIA, Transmission Provider shall file the LGIA with FERC, together with its explanation of any matters as to which Interconnection Customer and Transmission Provider disagree and support for the costs that Transmission Provider proposes to charge to Interconnection Customer under the LGIA. An unexecuted LGIA should contain terms and conditions deemed appropriate by Transmission Provider for the Interconnection Request. If the Parties agree to proceed with design, procurement, and construction of facilities and upgrades under the agreed-upon terms of the unexecuted LGIA, they may proceed pending FERC action.

11.4 Commencement of Interconnection Activities

If Interconnection Customer executes the final LGIA, Transmission Provider and Interconnection Customer shall perform their respective obligations in accordance with the terms of the LGIA, subject to modification by FERC. Upon submission of an unexecuted LGIA, Interconnection Customer and Transmission Provider shall promptly comply with the unexecuted LGIA, subject to modification by FERC.

Section 12. Construction of Transmission Provider's Interconnection Facilities and Network Upgrades

12.1 Schedule

Transmission Provider and Interconnection Customer shall negotiate in good faith concerning a schedule for the construction of Transmission Provider's Interconnection Facilities and the Network Upgrades.

12.2 Construction Sequencing

12.2.1 General

In general, the In-Service Date of an Interconnection Customers seeking interconnection to the Transmission System will determine the sequence of construction of Network Upgrades.

12.2.2 Advance Construction of Network Upgrades That Are an Obligation of an Entity Other Than Interconnection Customer

An Interconnection Customer with an LGIA, in order to maintain its In-Service Date, may request that Transmission Provider advance to the extent necessary the completion of Network Upgrades that: (i) were assumed in the Interconnection Studies for such Interconnection Customer, (ii) are necessary to support such In-Service Date, and (iii) would otherwise not be completed, pursuant to a contractual obligation of an entity other than Interconnection Customer that is seeking interconnection to the Transmission System, in time to support such In-Service Date. Upon such request, Transmission Provider will use Reasonable Efforts to advance the construction of such Network Upgrades to accommodate such request; provided that Interconnection Customer commits to pay Transmission Provider: (i) any associated expediting costs and (ii) the cost of such Network Upgrades. Transmission Provider will refund to

Interconnection Customer both the expediting costs and the cost of Network Upgrades, in accordance with Article 11.4 of the LGIA. Consequently, the entity with a contractual obligation to construct such Network Upgrades shall be obligated to pay only that portion of the costs of the Network Upgrades that Transmission Provider has not refunded to Interconnection Customer. Payment by that entity shall be due on the date that it would have been due had there been no request for advance construction. Transmission Provider shall forward to Interconnection Customer the amount paid by the entity with a contractual obligation to construct the Network Upgrades as payment in full for the outstanding balance owed to Interconnection Customer. Transmission Provider then shall refund to that entity the amount that it paid for the Network Upgrades, in accordance with Article 11.4 of the LGIA.

12.2.3 Advancing Construction of Network Upgrades That Are Part of an Expansion Plan of the Transmission Provider

An Interconnection Customer with an LGIA, in order to maintain its In-Service Date, may request that Transmission Provider advance to the extent necessary the completion of Network Upgrades that: (i) are necessary to support such In-Service Date and (ii) would otherwise not be completed, pursuant to an expansion plan of Transmission Provider, in time to support such In-Service Date. Upon such request, Transmission Provider will use Reasonable Efforts to advance the construction of such Network Upgrades to accommodate such request; provided that Interconnection Customer commits to pay Transmission Provider any associated expediting costs. Interconnection Customer shall be entitled to transmission credits, if any, for any expediting costs paid.

12.2.4 Amended Interconnection [System Impact] Cluster Study Report

An Interconnection [System Impact] Cluster Study Report will be amended to determine the facilities necessary to support the requested In-Service Date. This amended study report will include those transmission and Large Generating Facilities that are expected to be on or before the requested In-Service Date.

Section 13. Miscellaneous

13.1 Confidentiality

Confidential Information shall include, without limitation, all information relating to a Party's technology, research and development, business affairs, and pricing, and any information supplied by either of the Parties to the other prior to the execution of an LGIA.

Information is Confidential Information only if it is clearly designated or marked in writing as confidential on the face of the document, or, if the information is conveyed orally or by inspection, if the Party providing the information orally informs the Party receiving the information that the information is confidential.

If requested by either Party, the other Party shall provide in writing, the basis for asserting that the information referred to in

this Article warrants confidential treatment, and the requesting Party may disclose such writing to the appropriate Governmental Authority. Each Party shall be responsible for the costs associated with affording confidential treatment to its information.

13.1.1 Scope

Confidential Information shall not include information that the receiving Party can demonstrate: (1) is generally available to the public other than as a result of a disclosure by the receiving Party; (2) was in the lawful possession of the receiving Party on a non-confidential basis before receiving it from the disclosing Party; (3) was supplied to the receiving Party without restriction by a third party, who, to the knowledge of the receiving Party after due inquiry, was under no obligation to the disclosing Party to keep such information confidential; (4) was independently developed by the receiving Party without reference to Confidential Information of the disclosing Party; (5) is, or becomes, publicly known, through no wrongful act or omission of the receiving Party or Breach of the LGIA; or (6) is required, in accordance with Section 13.1.6, Order of Disclosure, to be disclosed by any Governmental Authority or is otherwise required to be disclosed by law or subpoena, or is necessary in any legal proceeding establishing rights and obligations under the LGIA. Information designated as Confidential Information will no longer be deemed confidential if the Party that designated the information as confidential notifies the other Party that it no longer is confidential.

13.1.2 Release of Confidential Information

Neither Party shall release or disclose Confidential Information to any other person, except to its Affiliates (limited by the Standards of Conduct requirements), employees, consultants, or to parties who may be or considering providing financing to or equity participation with Interconnection Customer, or to potential purchasers or assignees of Interconnection Customer, on a need-to-know basis in connection with these procedures, unless such person has first been advised of the confidentiality provisions of this Section 13.1 and has agreed to comply with such provisions. Notwithstanding the foregoing, a Party providing Confidential Information to any person shall remain primarily responsible for any release of Confidential Information in contravention of this Section 13.1.

13.1.3 Rights

Each Party retains all rights, title, and interest in the Confidential Information that each Party discloses to the other Party. The disclosure by each Party to the other Party of Confidential Information shall not be deemed a waiver by either Party or any other person or entity of the right to protect the Confidential Information from public disclosure.

13.1.4 No Warranties

By providing Confidential Information, neither Party makes any warranties or representations as to its accuracy or completeness. In addition, by supplying Confidential Information, neither Party obligates itself to provide any particular

information or Confidential Information to the other Party nor to enter into any further agreements or proceed with any other relationship or joint venture.

13.1.5 Standard of Care

Each Party shall use at least the same standard of care to protect Confidential Information it receives as it uses to protect its own Confidential Information from unauthorized disclosure, publication or dissemination. Each Party may use Confidential Information solely to fulfill its obligations to the other Party under these procedures or its regulatory requirements.

13.1.6 Order of Disclosure

If a court or a Government Authority or entity with the right, power, and apparent authority to do so requests or requires either Party, by subpoena, oral deposition, interrogatories, requests for production of documents, administrative order, or otherwise, to disclose Confidential Information, that Party shall provide the other Party with prompt notice of such request(s) or requirement(s) so that the other Party may seek an appropriate protective order or waive compliance with the terms of the LGIA. Notwithstanding the absence of a protective order or waiver, the Party may disclose such Confidential Information which, in the opinion of its counsel, the Party is legally compelled to disclose. Each Party will use Reasonable Efforts to obtain reliable assurance that confidential treatment will be accorded any Confidential Information so furnished.

13.1.7 Remedies

The Parties agree that monetary damages would be inadequate to compensate a Party for the other Party's Breach of its obligations under this Section 13.1. Each Party accordingly agrees that the other Party shall be entitled to equitable relief, by way of injunction or otherwise, if the first Party Breaches or threatens to Breach its obligations under this Section 13.1, which equitable relief shall be granted without bond or proof of damages, and the receiving Party shall not plead in defense that there would be an adequate remedy at law. Such remedy shall not be deemed an exclusive remedy for the Breach of this Section 13.1, but shall be in addition to all other remedies available at law or in equity. The Parties further acknowledge and agree that the covenants contained herein are necessary for the protection of legitimate business interests and are reasonable in scope. No Party, however, shall be liable for indirect, incidental, or consequential or punitive damages of any nature or kind resulting from or arising in connection with this Section 13.1.

13.1.8 Disclosure to FERC, its Staff, or a State

Notwithstanding anything in this Section 13.1 to the contrary, and pursuant to 18 CFR 1b.20, if FERC or its staff, during the course of an investigation or otherwise, requests information from one of the Parties that is otherwise required to be maintained in confidence pursuant to the LGIP, the Party shall provide the requested information to FERC or its staff, within the time provided

for in the request for information. In providing the information to FERC or its staff, the Party must, consistent with 18 CFR 388.112, request that the information be treated as confidential and non-public by FERC and its staff and that the information be withheld from public disclosure. Parties are prohibited from notifying the other Party prior to the release of the Confidential Information to FERC or its staff. The Party shall notify the other Party to the LGIA when it is notified by FERC or its staff that a request to release Confidential Information has been received by FERC, at which time either of the Parties may respond before such information would be made public, pursuant to 18 CFR 388.112. Requests from a state regulatory body conducting a confidential investigation shall be treated in a similar manner, consistent with applicable state rules and regulations.

13.1.9

Subject to the exception in Section 13.1.8 of this LGIP, any information that a Party claims is competitively sensitive, commercial or financial information ("Confidential Information") shall not be disclosed by the other Party to any person not employed or retained by the other Party, except to the extent disclosure is (i) required by law; (ii) reasonably deemed by the disclosing Party to be required to be disclosed in connection with a dispute between or among the Parties, or the defense of litigation or dispute; (iii) otherwise permitted by consent of the other Party, such consent not to be unreasonably withheld; or (iv) necessary to fulfill its obligations under this LGIP or as a transmission service provider or a [Control Area]Balancing Authority Area operator including disclosing the Confidential Information to an RTO or ISO or to a subregional, regional or national reliability organization or planning group. The Party asserting confidentiality shall notify the other Party in writing of the information it claims is confidential. Prior to any disclosures of the other Party's Confidential Information under this subparagraph, or if any third party or Governmental Authority makes any request or demand for any of the information described in this subparagraph, the disclosing Party agrees to promptly notify the other Party in writing and agrees to assert confidentiality and cooperate with the other Party in seeking to protect the Confidential Information from public disclosure by confidentiality agreement, protective order or other reasonable measures.

13.1.10

This provision shall not apply to any information that was or is hereafter in the public domain (except as a result of a Breach of this provision).

13.1.11

Transmission Provider shall, at Interconnection Customer's election, destroy, in a confidential manner, or return the Confidential Information provided at the time of Confidential Information is no longer needed.

13.2 Delegation of Responsibility

Transmission Provider may use the services of subcontractors as it deems

appropriate to perform its obligations under this LGIP. Transmission Provider shall remain primarily liable to Interconnection Customer for the performance of such subcontractors and compliance with its obligations of this LGIP. The subcontractor shall keep all information provided confidential and shall use such information solely for the performance of such obligation for which it was provided and no other purpose.

13.3 Obligation for Study Costs

In the event an Interconnection Customer withdraws its Interconnection Request prior to the commencement of the Cluster Study, Interconnection Customer must pay Transmission Provider the actual costs of processing its Interconnection Request. In the event an Interconnection Customer withdraws after the commencement of the Cluster Study, Transmission Provider shall charge and Interconnection Customer shall pay the actual costs of the Interconnection Studies. The costs of any interconnection study conducted on a clustered basis shall be allocated among each Interconnection Customer within the cluster as follows: {Transmission Provider shall include in this section a description of how the cost of any clustered interconnection study will be allocated.}

Any difference between the study deposit and the actual cost of the applicable Interconnection Study shall be paid by or refunded, except as otherwise provided herein, to Interconnection [Customer]Customers or offset against the cost of any future Interconnection Studies associated with the applicable [Interconnection Request]Cluster prior to beginning of any such future Interconnection Studies. Any invoices for Interconnection Studies shall include a detailed and itemized accounting of the cost of each Interconnection Study. Interconnection [Customer]Customers shall pay any such undisputed costs within thirty (30) Calendar Days of receipt of an invoice therefor. *If an Interconnection Customer fails to pay such undisputed costs within the time allotted, its Interconnection Request shall be deemed withdrawn from the Cluster Study Process and will be subject to Withdrawal Penalties pursuant to Section 3.7 of this LGIP.* [Transmission Provider shall not be obligated to perform or continue to perform any studies unless Interconnection Customer has paid all undisputed amounts in compliance herewith.]

13.4 Third Parties Conducting Studies

If (i) at the time of the signing of an Interconnection Study Agreement there is disagreement as to the estimated time to complete an Interconnection Study, (ii) Interconnection Customer receives notice pursuant to Sections 6.3, 7.4 or 8.3 that Transmission Provider will not complete an Interconnection Study within the applicable timeframe for such Interconnection Study, or (iii) Interconnection Customer receives neither the Interconnection Study nor a notice under Sections 6.3, 7.4 or 8.3 within the applicable timeframe for such Interconnection Study, then Interconnection Customer may require Transmission Provider

to utilize a third party consultant reasonably acceptable to Interconnection Customer and Transmission Provider to perform such Interconnection Study under the direction of Transmission Provider. At other times, Transmission Provider may also utilize a third party consultant to perform such Interconnection Study, either in response to a general request of Interconnection Customer, or on its own volition.

In all cases, use of a third party consultant shall be in accord with Article 26 of the LGIA (Subcontractors) and limited to situations where Transmission Provider determines that doing so will help maintain or accelerate the study process for Interconnection Customer's pending Interconnection Request and not interfere with Transmission Provider's progress on Interconnection Studies for other pending Interconnection Requests. In cases where Interconnection Customer requests use of a third party consultant to perform such Interconnection Study, Interconnection Customer and Transmission Provider shall negotiate all of the pertinent terms and conditions, including reimbursement arrangements and the estimated study completion date and study review deadline. Transmission Provider shall convey all workpapers, data bases, study results and all other supporting documentation prepared to date with respect to the Interconnection Request as soon as soon as practicable upon Interconnection Customer's request subject to the confidentiality provision in Section 13.1. In any case, such third party contract may be entered into with either Interconnection Customer or Transmission Provider at Transmission Provider's discretion. In the case of (iii) Interconnection Customer maintains its right to submit a claim to Dispute Resolution to recover the costs of such third party study. Such third party consultant shall be required to comply with this LGIP, Article 26 of the LGIA (Subcontractors), and the relevant Tariff procedures and protocols as would apply if Transmission Provider were to conduct the Interconnection Study and shall use the information provided to it solely for purposes of performing such services and for no other purposes. Transmission Provider shall cooperate with such third party consultant and Interconnection Customer to complete and issue the Interconnection Study in the shortest reasonable time.

13.5 Disputes

13.5.1 Submission

In the event either Party has a dispute, or asserts a claim, that arises out of or in connection with the LGIA, the LGIP, or their performance, such Party (the "disputing Party") shall provide the other Party with written notice of the dispute or claim ("Notice of Dispute"). Such dispute or claim shall be referred to a designated senior representative of each Party for resolution on an informal basis as promptly as practicable after receipt of the Notice of Dispute by the other Party. In the event the designated representatives are unable to resolve the claim or dispute through unassisted or assisted negotiations within thirty (30) Calendar Days of the other Party's receipt of the Notice of Dispute, such claim or dispute

may, upon mutual agreement of the Parties, be submitted to arbitration and resolved in accordance with the arbitration procedures set forth below. In the event the Parties do not agree to submit such claim or dispute to arbitration, each Party may exercise whatever rights and remedies it may have in equity or at law consistent with the terms of this LGIA.

13.5.2 External Arbitration Procedures

Any arbitration initiated under these procedures shall be conducted before a single neutral arbitrator appointed by the Parties. If the Parties fail to agree upon a single arbitrator within ten (10) Calendar Days of the submission of the dispute to arbitration, each Party shall choose one arbitrator who shall sit on a three-member arbitration panel. The two arbitrators so chosen shall within twenty (20) Calendar Days select a third arbitrator to chair the arbitration panel. In either case, the arbitrators shall be knowledgeable in electric utility matters, including electric transmission and bulk power issues, and shall not have any current or past substantial business or financial relationships with any party to the arbitration (except prior arbitration). The arbitrator(s) shall provide each of the Parties an opportunity to be heard and, except as otherwise provided herein, shall conduct the arbitration in accordance with the Commercial Arbitration Rules of the American Arbitration Association ("Arbitration Rules") and any applicable FERC regulations or RTO rules; provided, however, in the event of a conflict between the Arbitration Rules and the terms of this Section 13, the terms of this Section 13 shall prevail.

13.5.3 Arbitration Decisions

Unless otherwise agreed by the Parties, the arbitrator(s) shall render a decision within ninety (90) Calendar Days of appointment and shall notify the Parties in writing of such decision and the reasons therefor. The arbitrator(s) shall be authorized only to interpret and apply the provisions of the LGIA and LGIP and shall have no power to modify or change any provision of the LGIA and LGIP in any manner. The decision of the arbitrator(s) shall be final and binding upon the Parties, and judgment on the award may be entered in any court having jurisdiction. The decision of the arbitrator(s) may be appealed solely on the grounds that the conduct of the arbitrator(s), or the decision itself, violated the standards set forth in the Federal Arbitration Act or the Administrative Dispute Resolution Act. The final decision of the arbitrator must also be filed with FERC if it affects jurisdictional rates, terms and conditions of service, Interconnection Facilities, or Network Upgrades.

13.5.4 Costs

Each Party shall be responsible for its own costs incurred during the arbitration process and for the following costs, if applicable: (1) the cost of the arbitrator chosen by the Party to sit on the three member panel and one half of the cost of the third arbitrator chosen; or (2) one half the cost of the single arbitrator jointly chosen by the Parties.

13.5.5 Non-Binding Dispute Resolution Procedures

If a Party has submitted a Notice of Dispute pursuant to S[]section 13.5.1, and the Parties are unable to resolve the claim or dispute through unassisted or assisted negotiations within the thirty (30) Calendar Days provided in that section, and the Parties cannot reach mutual agreement to pursue the S[]section 13.5 arbitration process, a Party may request that Transmission Provider engage in Non-binding Dispute Resolution pursuant to this section by providing written notice to Transmission Provider ("Request for Non-binding Dispute Resolution"). Conversely, either Party may file a Request for Non-binding Dispute Resolution pursuant to this section without first seeking mutual agreement to pursue the S[]section 13.5 arbitration process. The process in S[]section 13.5.5 shall serve as an alternative to, and not a replacement of, the section 13.5 arbitration process. Pursuant to this process, a Transmission Provider must within 30 days of receipt of the Request for Non-binding Dispute Resolution appoint a neutral decision-maker that is an independent subcontractor that shall not have any current or past substantial business or financial relationships with either Party. Unless otherwise agreed by the Parties, the decision-maker shall render a decision within sixty (60) Calendar Days of appointment and shall notify the Parties in writing of such decision and reasons therefore. This decision-maker shall be authorized only to interpret and apply the provisions of the LGIP and LGIA and shall have no power to modify or change any provision of the LGIP and LGIA in any manner. The result reached in this process is not binding, but, unless otherwise agreed, the Parties may cite the record and decision in the non-binding dispute resolution process in future dispute resolution processes, including in a S[]section 13.5 arbitration, or in a Federal Power Act section 206 complaint. Each Party shall be responsible for its own costs incurred during the process and the cost of the decision-maker shall be divided equally among each Party to the dispute.

13.6 Local Furnishing Bonds

13.6.1 Transmission Providers That Own Facilities Financed by Local Furnishing Bonds

This provision is applicable only to a Transmission Provider that has financed facilities for the local furnishing of electric energy with tax-exempt bonds, as described in Section 142(f) of the Internal Revenue Code ("local furnishing bonds"). Notwithstanding any other provision of this LGIA and LGIP, Transmission Provider shall not be required to provide Interconnection Service to Interconnection Customer pursuant to this LGIA and LGIP if the provision of such Transmission Service would jeopardize the tax-exempt status of any local furnishing bond(s) used to finance Transmission Provider's facilities that would be used in providing such Interconnection Service.

13.6.2 Alternative Procedures for Requesting Interconnection Service

If Transmission Provider determines that the provision of Interconnection Service requested by Interconnection Customer would jeopardize the tax-exempt status of any local furnishing bond(s) used to finance its facilities that would be used in providing such Interconnection Service, it shall advise the Interconnection Customer within thirty (30) Calendar Days of receipt of the Interconnection Request.

Interconnection Customer thereafter may renew its request for interconnection using the process specified in Article 5.2(ii) of the Transmission Provider's Tariff.

Section [9]13.7 Engineering & Procurement ('E&P') Agreement

Prior to executing an LGIA, an Interconnection Customer may, in order to advance the implementation of its interconnection, request and Transmission Provider shall offer Interconnection Customer, an E&P Agreement that authorizes Transmission Provider to begin engineering and procurement of long lead-time items necessary for the establishment of the interconnection. However, Transmission Provider shall not be obligated to offer an E&P Agreement if Interconnection Customer is in Dispute Resolution as a result of an allegation that Interconnection Customer has failed to meet any milestones or comply with any prerequisites specified in other parts of the LGIP. The E&P Agreement is an optional procedure and it will not alter Interconnection Customer's Queue Position or In-Service Date. The E&P Agreement shall provide for Interconnection Customer to pay the cost of all activities authorized by Interconnection Customer and to make advance payments or provide other satisfactory security for such costs.

Interconnection Customer shall pay the cost of such authorized activities and any cancellation costs for equipment that is already ordered for its interconnection, which cannot be mitigated as hereafter described, whether or not such items or equipment later become unnecessary. If Interconnection Customer withdraws its Interconnection Request or either Party terminates the E&P Agreement, to the extent the equipment ordered can be canceled under reasonable terms, Interconnection Customer shall be obligated to pay the associated cancellation costs. To the extent that the equipment cannot be reasonably canceled, Transmission Provider may elect: (i) to take title to the equipment, in which event Transmission Provider shall refund Interconnection Customer any amounts paid by Interconnection Customer for such equipment and shall pay the cost of delivery of such equipment, or (ii) to transfer title to and deliver such equipment to Interconnection Customer, in which event Interconnection Customer shall pay any unpaid balance and cost of delivery of such equipment.

Appendix 1 to LGIP

INTERCONNECTION REQUEST FOR A LARGE GENERATING FACILITY

1. The undersigned Interconnection Customer submits this request to interconnect its Large Generating Facility with Transmission Provider's Transmission System pursuant to a Tariff.
- 2.
2. This Interconnection Request is for (check one):
 3. ____ A proposed new Large Generating Facility.
 4. ____ An increase in the generating capacity or a Material Modification of an existing Generating Facility.
3. The type of interconnection service requested (check one):
 5. ____ Energy Resource Interconnection Service
 6. ____ Network Resource Interconnection Service
4. ____ Check here only if Interconnection Customer requesting Network Resource Interconnection Service also seeks to have its Generating Facility studied for Energy Resource Interconnection Service
- 7.
5. Interconnection Customer provides the following information:
 - a. Address or location or the proposed new Large Generating Facility site (to the extent known) or, in the case of an existing Generating Facility, the name and specific location of the existing Generating Facility;
 - b. Maximum summer at ____ degrees C and winter at ____ degrees C megawatt electrical output of the proposed new Large Generating Facility or the amount of megawatt increase in the generating capacity of an existing Generating Facility;
 - c. General description of the equipment configuration;
 - d. Commercial Operation Date (Day, Month, and Year);
 - e. Name, address, telephone number, and email address of Interconnection Customer's contact person;
 - f. Approximate location of the proposed Point of Interconnection (optional);
 - g. Interconnection Customer Data (set forth in Attachment A);
 - h. Primary frequency response operating range for electric storage resources;
 - i. Requested capacity (in MW) of Interconnection Service (if lower than the Generating Facility Capacity)[.];
 - j. *If applicable, (1) the requested operating assumptions (i.e., whether the interconnecting Generating Facility will or will not charge at peak load) to be used by Transmission Provider that reflect the proposed charging behavior of a Generating Facility that includes at least one electric storage resource, and (2) a description of any control technologies (software and/or hardware) that will limit the operation of the Generating Facility to its intended operation.*
6. Applicable deposit amount as specified in the LGIP.
- 8.
7. Evidence of Site Control as specified in the LGIP (check one)
- 9.

10. ____ Is attached to this Interconnection Request

11. ____ Will be provided at a later date in accordance with this LGIP

8. This Interconnection Request shall be submitted to the representative indicated below:

12. {To be completed by Transmission Provider}

9. Representative of Interconnection Customer to contact:

13. [To be completed by Interconnection Customer]

10. This Interconnection Request is submitted by:

14.

15. Name of Interconnection Customer:

By (signature): _____

Name (type or print): _____

Title: _____

Date: _____

Attachment A to Appendix 1
Interconnection Request

Large Generating Facility Data Unit Ratings

kVA ____ °F ____ Voltage ____

Power Factor ____

Speed (RPM) ____ Connection (e.g. Wye) ____

Short Circuit Ratio ____ Frequency, Hertz ____

Stator Amperes at Rated kVA ____ Field Volts ____

Max Turbine ____ MW °F ____

Primary frequency response operating range for electric storage resources:

Minimum State of Charge: _____

Maximum State of Charge: _____

Combined Turbine–Generator–Exciter Inertia Data

Inertia Constant, H = ____ kW sec/kVA

Moment-of-Inertia, WR² = ____ lb. ft.²

Reactance Data (per Unit–Rated KVA)

	Direct axis	Quadrature axis
Synchronous—saturated	X _{dv} ____	X _{qv} ____
Synchronous—unsaturated	X _{di} ____	X _{qi} ____
Transient—saturated	X' _{dv} ____	X' _{qv} ____
Transient—unsaturated	X' _{di} ____	X' _{qi} ____
Subtransient—saturated	X'' _{dv} ____	X'' _{qv} ____
Subtransient—unsaturated	X'' _{di} ____	X'' _{qi} ____
Negative Sequence—saturated	X _{2v} ____	
Negative Sequence—unsaturated	X _{2i} ____	
Zero Sequence—saturated	X _{0v} ____	
Zero Sequence—unsaturated	X _{0i} ____	
Leakage Reactance	X _{lm} ____	

Field Time Constant Data (SEC)

Open Circuit

Three-Phase Short Circuit Transient

Line to Line Short Circuit Transient

Line to Neutral Short Circuit Transient

Short Circuit Subtransient

Open Circuit Subtransient

T'_{do} ____

T'_{d3} ____

T'_{d2} ____

T'_{d1} ____

T''_d ____

T''_{do} ____

T'_{qo} ____

T'_q ____

T''_q ____

T''_{qo} ____

Armature Time Constant Data (SEC)

Three Phase Short Circuit—T_{a3} ____

Line to Line Short Circuit—T_{a2} ____

Line to Neutral Short Circuit—T_{a1} ____

Note: If requested information is not applicable, indicate by marking “N/A.”

MW Capability and Plant Configuration
Large Generating Facility Data

Armature Winding Resistance Data (per Unit)

Positive—R₁ ____

Negative—R₂ ____

Zero—R₀ ____

Rotor Short Time Thermal Capacity I₂²t =

Field Current at Rated kVA, Armature Voltage and PF = ____ amps

Field Current at Rated kVA and Armature Voltage, 0 PF = ____ amps

Three Phase Armature Winding Capacitance = ____ microfarad

Field Winding Resistance = ____ ohms °C

Armature Winding Resistance (Per Phase) = ____ ohms ____ °C

Curves

Provide Saturation, Vee, Reactive Capability, Capacity Temperature Correction curves. Designate normal and emergency Hydrogen Pressure operating range for multiple curves.

Generator Step-Up Transformer Data
Ratings

Capacity Self-cooled/Maximum Nameplate ____ / ____ kVA

Voltage Ratio(Generator Side/System side/ Tertiary) ____ / ____ / ____ kV

Winding Connections (Low V/High V/ Tertiary V (Delta or Wye)) ____ / ____ / ____

Fixed Taps Available ____

Present Tap Setting ____

Impedance

Positive Z₁ (on self-cooled kVA rating) ____ % ____ X/R

Zero Z₀ (on self-cooled kVA rating) ____ % ____ X/R

Excitation System Data

Identify appropriate IEEE model block diagram of excitation system and power system stabilizer (PSS) for computer representation in power system stability simulations and the corresponding excitation system and PSS constants for use in the model.

Governor System Data

Identify appropriate IEEE model block diagram of governor system for computer representation in power system stability

simulations and the corresponding governor system constants for use in the model.

Wind Generators

Number of generators to be interconnected pursuant to this Interconnection Request:

Elevation: _____

____ Single Phase

____ Three Phase

Inverter manufacturer, model name, number, and version:

List of adjustable setpoints for the protective equipment or software:

Note: A completed General Electric Company Power Systems Load Flow (PSLF) data sheet or other compatible formats, such as IEEE and PTI power flow models, must be supplied with the Interconnection Request. If other data sheets are more appropriate to the proposed device, then they shall be provided and discussed at Scoping Meeting.

Induction Generators

(*) Field Volts: _____

(*) Field Amperes: _____

(*) Motoring Power (kW): _____

(*) Neutral Grounding Resistor (If Applicable): _____

(*) I₂²t or K (Heating Time Constant): _____

(*) Rotor Resistance: _____

(*) Stator Resistance: _____
 (*) Stator Reactance: _____
 (*) Rotor Reactance: _____
 (*) Magnetizing Reactance: _____
 (*) Short Circuit Reactance: _____
 (*) Exciting Current: _____
 (*) Temperature Rise: _____
 (*) Frame Size: _____
 (*) Design Letter: _____
 (*) Reactive Power Required In Vars (No Load): _____
 (*) Reactive Power Required In Vars (Full Load): _____
 (*) Total Rotating Inertia, H: _____ Per Unit on KVA Base

Note: Please consult Transmission Provider prior to submitting the Interconnection Request to determine if the information designated by (*) is required.

Models for Non-Synchronous Generators

For a non-synchronous Large Generating Facility, Interconnection Customer shall provide (1) a validated user-defined root mean squared (RMS) positive sequence dynamics model; (2) an appropriately parameterized generic library RMS positive sequence dynamics model, including model block diagram of the inverter control and plant control systems, as defined by the selection in Table 1 or a model otherwise approved by the Western Electricity Coordinating Council, that corresponds to Interconnection Customer's Large Generating Facility; and (3) if applicable, a validated electromagnetic transient model if Transmission Provider performs an electromagnetic transient study as part of the interconnection study process. A user-

defined model is a set of programming code created by equipment manufacturers or developers that captures the latest features of controllers that are mainly software based and represents the entities' control strategies but does not necessarily correspond to any generic library model. Interconnection Customer must also demonstrate that the model is validated by providing evidence that the equipment behavior is consistent with the model behavior (e.g., an attestation from Interconnection Customer that the model accurately represents the entire Large Generating Facility; attestations from each equipment manufacturer that the user defined model accurately represents the component of the Large Generating Facility; or test data).

Table 1—Acceptable Generic Library RMS Positive Sequence Dynamics Models

GE PSLF	Siemens PSS/E*	PowerWorld Simulator	Description
pvd1 .....	.....	PVD1	Distributed PV system model.
der_a	DERAU1	DER_A	Distributed energy resource model.
regc_a	REGCAU1, REGCA1	REGC_A	Generator/converter model.
regc_b	REGCBU1	REGC_B	Generator/converter model.
wt1g	WT1G1	WT1G and WT1G1	Wind turbine model for Type-1 wind turbines (conventional directly connected induction generator).
wt2g	WT2G1	WT2G and WT2G1	Generator model for generic Type-2 wind turbines.
wt2e	WT2E1	WT2E and WT2E1	Rotor resistance control model for wound-rotor induction wind-turbine generator wt2g.
reec_a	REECAU1, REECA1	REEC_A	Renewable energy electrical control model.
reec_c	REECCU1	REEC_C	Electrical control model for battery energy storage system.
reec_d	REECBU1	REEC_D	Renewable energy electrical control model.
wt1t	WT12T1	WT1T and WT12T1	Wind turbine model for Type-1 wind turbines (conventional directly connected induction generator).
wt1p_b	wt1p_b	WT12A1U_B	Generic wind turbine pitch controller for WTGs of Types 1 and 2.
wt2t	WT12T1	WT2T	Wind turbine model for Type-2 wind turbines (directly connected induction generator wind turbines with an external rotor resistance).
wtgt_a	WTDTAU1, WTDTA1	WTGT_A	Wind turbine drive train model.
wtga_a	WTARAU1, WTARA1	WTGA_A	Simple aerodynamic model.
wtgp_a	WTPTAU1, WTPTA1	WTGPT_A	Wind Turbine Generator Pitch controller.
wtgq_a	WTTQAU1, WTTQA1	WTGTRQ_A	Wind Turbine Generator Torque controller.
wtgwgo_a	WTGWGOAU	WTGWGO_A	Supplementary control model for Weak Grids.
wtgibffr_a	WTGIBFFRA	WTGIBFFR_A	Inertial-base fast frequency response control.
wtgp_b	WTPTBU1	WTGPT_B	Wind Turbine Generator Pitch controller.
wtgt_b	WTDTBUI	WTGT_B	Drive train model.
repc_a	Type 4: REPCAUI (v33), REPCA1 (v34). Type 3: REPCTAUI (v33), REPCTA1 (v34).	REPC_A	Power Plant Controller.
repc_b	PLNTBU1	REPC_B	Power Plant Level Controller for controlling several plants/devices. In regard to Siemens PSS/E*: Names of other models for interface with other devices: REA3XBU1, REAX4BU1—for interface with Type 3 and 4 renewable machines. SWSAXBU1—for interface with SVC (modeled as switched shunt in powerflow). SYNTAXBU1—for interface with synchronous condenser. FCTAXBUI—for interface with FACTS device.
repc_c	REPCCU	REPC_C	Power plant controller.

Appendix 2 to LGIP

[Interconnection Feasibility Study Agreement]

[This agreement is made and entered into this __ day of ____, 20 __ by and between ____, a ____ organized and existing under the laws of ____ the State of ("Interconnection Customer"), and ____, a ____ existing under the

laws of the State of ____ ("Transmission Provider"). Interconnection Customer and Transmission Provider each may be referred to as a "Party," or collectively as the "Parties."]

[Recitals]

[Whereas, Interconnection Customer is proposing to develop a Large Generating Facility or generating capacity addition to an

existing Generating Facility consistent with the Interconnection Request submitted by Interconnection customer dated ____; and]

[Whereas, Interconnection Customer desires to interconnect the Large Generating Facility with the Transmission System; and]

[Whereas, Interconnection Customer has requested Transmission Provider to perform an Interconnection Feasibility Study to assess the feasibility of interconnecting the

proposed Large Generating Facility to the Transmission System, and of any Affected Systems;]

[Now, therefore, in consideration of and subject to the mutual covenants contained herein the Parties agree as follows:]

1.0 When used in this Agreement, with initial capitalization, the terms specified shall have the meanings indicated in Transmission Provider's FERC-approved LGIP]

2.0 Interconnection Customer elects and Transmission Provider shall cause to be performed an Interconnection Feasibility Study consistent with Section 6.0 of this LGIP in accordance with the Tariff].

3.0 The scope of the Interconnection Feasibility Study shall be subject to the assumptions set forth in Attachment A to this Agreement.]

4.0 The Interconnection Feasibility Study shall be based on the technical information provided by Interconnection Customer in the Interconnection Request, as may be modified as the result of the Scoping Meeting. Transmission Provider reserves the right to request additional technical information from Interconnection Customer as may reasonably become necessary consistent with Good Utility Practice during the course of the Interconnection Feasibility Study and as designated in accordance with Section 3.4.4 of the LGIP. If, after the designation of the Point of Interconnection pursuant to Section 3.4.4 of the LGIP, Interconnection Customer modifies its Interconnection Request pursuant to Section 4.4, the time to complete the Interconnection Feasibility Study may be extended.]

5.0 The Interconnection Feasibility Study report shall provide the following information:]

- [preliminary identification of any circuit breaker short circuit capability limits exceeded as a result of the interconnection;]
- [preliminary identification of any thermal overload or voltage limit violations resulting from the interconnection; and]
- [preliminary description and non-bonding estimated cost of facilities required to interconnect the Large Generating Facility to the Transmission System and to address the identified short circuit and power flow issues.]

6.0 Interconnection Customer shall provide a deposit of \$10,000 for the performance of the Interconnection Feasibility Study.]

[Upon receipt of the Interconnection Feasibility Study, Transmission Provider shall charge and Interconnection Customer shall pay the actual costs of the Interconnection Feasibility Study.]

[Any difference between the deposit and the actual cost of the study shall be paid by or refunded to Interconnection Customer, as appropriate.]

7.0 Miscellaneous. The Interconnection Feasibility Study Agreement shall include standard miscellaneous terms including, but not limited to, indemnities, representations, disclaimers, warranties, governing law, amendment, execution, waiver, enforceability and assignment, that reflect best practices in the electric industry, and

that are consistent with regional practices, Applicable Laws and Regulations, and the organizational nature of each Party. All of these provisions, to the extent practicable, shall be consistent with the provisions of this LGIP and the LGIA.]

[In witness whereof, the Parties have caused this Agreement to be duly executed by their duly authorized officers or agents on the day and year first above written.

{Insert name of Transmission Provider or Transmission Owner, if applicable}

By: _____

Title: _____

Date: _____

By: _____

Title: _____

Date: _____

{Insert name of prospective Interconnection Customer}

By: _____

Title: _____

Date:] _____

[Attachment A to Appendix 2 Interconnection Feasibility Study Agreement]

[Assumptions Used in Conducting the Interconnection Feasibility Study]

[The *Informational* Interconnection Feasibility Study will be based upon the information set forth in the Interconnection Request and agreed upon in the Scoping Meeting held on _____:

Designation of Point of Interconnection and configuration to be studied.

Designation of alternative Point(s) of Interconnection and configuration.

{Above assumptions to be completed by Interconnection Customer and other assumptions to be provided by Interconnection Customer and Transmission Provider}]

Appendix 2[3] to LGIP

[Interconnection System Impact]Cluster Study Agreement

This agreement is made and entered into this day of _____, 20__ by and between _____, a _____ organized and existing under the laws of the State of _____, ("Interconnection Customer,") and _____, a _____ organized and existing under the laws of the State of _____ ("Transmission Provider"). Interconnection Customer and Transmission Provider each may be referred to as a "Party," or collectively as the "Parties."

Recitals

Whereas, Interconnection Customer is proposing to develop a Large Generating Facility or generating capacity addition to an existing Generating Facility consistent with the Interconnection Request submitted by Interconnection Customer dated _____; and

Whereas, Interconnection Customer desires to interconnect the Large Generating Facility with the Transmission System;

[Whereas, Transmission Provider has completed an Interconnection Feasibility Study (the "[Feasibility] Study") and provided the results of said study to

Interconnection Customer (This recital to be omitted if Transmission Provider does not require the Interconnection Feasibility Study.); and]

Whereas, Interconnection Customer has requested Transmission Provider to perform [an Interconnection System Impact]a *Cluster* Study to assess the impact of interconnecting the Large Generating Facility to the Transmission System, and of any Affected Systems;

Now, therefore, in consideration of and subject to the mutual covenants contained herein, the Parties agreed as follows:

1.0 When used in this Agreement, with initial capitalization, the terms specified shall have the meanings indicated in this LGIP.

2.0 Interconnection Customer elects and Transmission Provider shall cause to be performed [an Interconnection System Impact]a *Cluster* Study consistent with Section 7.0 of this LGIP in accordance with the Tariff.

3.0 The scope of the [Interconnection System Impact]Cluster Study shall be subject to the assumptions set forth in Attachment A to this Agreement.

4.0 The [Interconnection System Impact]Cluster Study will be based upon the [results of the Interconnection Feasibility Study and] the technical information provided by Interconnection Customer in the Interconnection Request, subject to any modifications in accordance with Section 4.4 of this LGIP. Transmission Provider reserves the right to request additional technical information from Interconnection Customer as may reasonably become necessary consistent with Good Utility Practice during the course of the [Interconnection Customer System Impact]Cluster Study. [If Interconnection Customer modifies its designated Point of Interconnection, Interconnection Request, or the technical information provided therein, the time to complete the Interconnection System Impact Study may be extended.]

5.0 The [Interconnection System Impact]Cluster Study [report]Report shall provide the following information:

- identification of any circuit breaker short circuit capability limits exceeded as a result of the interconnection;
- identification of any thermal overload or voltage limit violations resulting from the interconnection;
- identification of any instability or inadequately damped response to system disturbances resulting from the interconnection; and
- description and non-binding, good faith estimated cost of facilities required to interconnect the Large Generating Facility to the Transmission System and to address the identified short circuit, instability, and power flow issues.

6.0 [Interconnection Customer shall provide a deposit of \$50,000 for the performance of the Interconnection System Impact Study.]Transmission Provider's good faith estimate for the time of completion of the [Interconnection System Impact]Cluster Study is {insert date}.

Upon receipt of the [Interconnection System Impact] *Cluster* Study Report, Transmission Provider shall charge and Interconnection Customer shall pay *its share* of the actual costs of the [Interconnection System Impact] *Cluster* Study, consistent with Section 13.3 of this LGIP.

Any difference between the deposit and the actual cost of the study shall be paid by or refunded to Interconnection Customer, as appropriate.

7.0 Miscellaneous. The [Interconnection System Impact] *Cluster* Study Agreement shall include standard miscellaneous terms including, but not limited to, indemnities, representations, disclaimers, warranties, governing law, amendment, execution, waiver, enforceability and assignment, that reflect best practices in the electric industry, that are consistent with regional practices, Applicable Laws and Regulations and the organizational nature of each Party. All of these provisions, to the extent practicable, shall be consistent with the provisions of this LGIP and LGIA.

In witness thereof, the Parties have caused this Agreement to be duly executed by their duly authorized officers or agents on the day and year first above written.

{Insert name of Transmission Provider or Transmission Owner, if applicable}

By: _____

Title: _____

Date: _____

{Insert name of Interconnection Customer}

By: _____

Title: _____

Date: _____

Attachment A to Appendix 2[3]

[Interconnection System Impact] *Cluster* Study Agreement

Assumptions Used in Conducting the [Interconnection System Impact] *Cluster* Study

The [Interconnection System Impact] *Cluster* Study will be based upon the *technical information provided by Interconnection Customer in the Interconnection Request*, [results of the Interconnection Feasibility Study,] subject to any modifications in accordance with Section 4.4 of this [e] LGIP, and the following assumptions:

Designation of Point of Interconnection and configuration to be studied.

Designation of alternative Point(s) of Interconnection and configuration.

{Above assumptions to be completed by Interconnection Customer and other assumptions to be provided by Interconnection Customer and Transmission Provider}

Appendix 3[4] to LGIP

Interconnection Facilities Study Agreement

This Agreement is made and entered into this ____ day of _____, 20____ by and between _____, a _____ organized and existing under the laws of the State of _____, (“Interconnection Customer,”) and _____ a _____ existing under the laws of the State of _____, (“Transmission Provider”). Interconnection

Customer and Transmission Provider each may be referred to as a “Party,” or collectively as the “Parties.”

Recitals

Whereas, Interconnection Customer is proposing to develop a Large Generating Facility or generating capacity addition to an existing Generating Facility consistent with the Interconnection Request submitted by Interconnection Customer dated _____; and

Whereas, Interconnection Customer desires to interconnect the Large Generating Facility with the Transmission System;

Whereas, Transmission Provider has completed an Interconnection [System Impact] *Cluster* Study (the “[System Impact] *Cluster* Study”) and provided the results of said study to Interconnection Customer; and

Whereas, Interconnection Customer has requested Transmission Provider to perform an Interconnection Facilities Study to specify and estimate the cost of the equipment, engineering, procurement and construction work needed to implement the conclusions of the [Interconnection System Impact] *Cluster* Study in accordance with Good Utility Practice to physically and electrically connect the Large Generating Facility to the Transmission System.

Now, therefore, in consideration of and subject to the mutual covenants contained herein the Parties agreed as follows:

1.0 When used in this Agreement, with initial capitalization, the terms specified shall have the meanings indicated in Transmission Provider’s FERC-approved LGIP.

2.0 Interconnection Customer elects and Transmission Provider shall cause an Interconnection Facilities Study consistent with Section 8.0 of this LGIP to be performed in accordance with the Tariff.

3.0 The scope of the Interconnection Facilities Study shall be subject to the assumptions set forth in Attachment A and the data provided in Attachment B to this Agreement.

4.0 The Interconnection Facilities Study [r]Report (i) shall provide a description, estimated cost of (consistent with Attachment A), schedule for required facilities to interconnect the Large Generating Facility to the Transmission System and (ii) shall address the short circuit, instability, and power flow issues identified in the [Interconnection System Impact] *Cluster* Study.

5.0 Interconnection Customer shall provide a *Commercial Readiness Deposit per Section 8.1 of this LGIP to enter* [deposit of \$100,000 for the performance of] the Interconnection Facilities Study. The time for completion of the Interconnection Facilities Study is specified in Attachment A.

[Transmission Provider shall invoice Interconnection Customer on a monthly basis for the work to be conducted on the Interconnection Facilities Study each month. Interconnection Customer shall pay invoiced amounts within thirty (30) Calendar Days of receipt of invoice. Transmission Provider shall continue to hold the amounts on deposit until settlement of the final invoice.]

6.0 Miscellaneous. The Interconnection Facilit[y]ies Study Agreement shall include standard miscellaneous terms including, but not limited to, indemnities, representations, disclaimers, warranties, governing law, amendment, execution, waiver, enforceability and assignment, that reflect best practices in the electric industry, and that are consistent with regional practices, Applicable Laws and Regulations, and the organizational nature of each Party. All of these provisions, to the extent practicable, shall be consistent with the provisions of the LGIP and the LGIA.

In witness whereof, the Parties have caused this Agreement to be duly executed by their duly authorized officers or agents on the day and year first above written.

{Insert name of Transmission Provider or Transmission Owner, if applicable}

By: _____

Title: _____

Date: _____

By: _____

Title: _____

Date: _____

{Insert name of Interconnection Customer}

By: _____

Title: _____

Date: _____

Attachment A to Appendix 3[4]

Interconnection Facilities Study Agreement

Interconnection Customer Schedule Election for Conducting the Interconnection Facilities Study

Transmission Provider shall [use Reasonable Efforts to] complete the study and issue a draft Interconnection Facilities Study [r]Report to Interconnection Customer within the following number of days after [of] receipt of an executed copy of this Interconnection Facilities Study Agreement:

- ninety (90) Calendar Days with no more than a $\pm$ 20 percent cost estimate contained in the report, or
- one hundred eighty (180) Calendar Days with no more than a $\pm$ 10 percent cost estimate contained in the report.

Attachment B to Appendix 3[4]

Interconnection Facilities Study Agreement

Data Form To Be Provided by Interconnection Customer With the Interconnection Facilities Study Agreement

Provide location plan and simplified one-line diagram of the plant and station facilities. For staged projects, please indicate future generation, transmission circuits, etc.

One set of metering is required for each generation connection to the new ring bus or existing Transmission Provider station. Number of generation connections:

On the one line diagram indicate the generation capacity attached at each metering location. (Maximum load on CT/PT)

On the one line diagram indicate the location of auxiliary power. (Minimum load on CT/PT) Amps

Will an alternate source of auxiliary power be available during CT/PT maintenance?

____ Yes ____ No

Will a transfer bus on the generation side of the metering require that each meter set be

designed for the total plant generation?
Yes ___ No (Please indicate on one line diagram).
What type of control system or PLC will be located at Interconnection Customer's Large Generating Facility?

What protocol does the control system or PLC use?

Please provide a 7.5-minute quadrangle of the site. Sketch the plant, station, transmission line, and property line.
Physical dimensions of the proposed interconnection station:

Bus length from generation to interconnection station:

Line length from interconnection station to Transmission Provider's transmission line.

Tower number observed in the field. (Painted on tower leg) *

Number of third party easements required for transmission lines *:

*To be completed in coordination with Transmission Provider.
Is the Large Generating Facility in the Transmission Provider's service area?
Yes ___ No ___
Local provider:

Please provide proposed schedule dates:
Begin Construction
Date: _____
Generator step-up transformer receives back feed power
Date: _____
Generation Testing
Date: _____
Commercial Operation
Date: _____

Appendix 4[5] to LGIP

Optional Interconnection Study Agreement

This Agreement is made and entered into this ___ day of ___, 20___ by and between ___, a ___ organized and existing under the laws of the State of ___, ("Interconnection Customer,") and ___ a ___ existing under the laws of the State of ___, ("Transmission Provider"). Interconnection Customer and Transmission Provider each may be referred to as a "Party," or collectively as the "Parties."

Recitals

Whereas, Interconnection Customer is proposing to develop a Large Generating Facility or generating capacity addition to an existing Generating Facility consistent with the Interconnection Request submitted by Interconnection Customer dated _____;
Whereas, Interconnection Customer is proposing to establish an interconnection with the Transmission System; and
Whereas, Interconnection Customer has submitted to Transmission Provider an Interconnection Request; and

Whereas, on or after the date when Interconnection Customer receives the [Interconnection System Impact] Cluster Study results, Interconnection Customer has further requested that Transmission Provider prepare an Optional Interconnection Study;
Now, Therefore, in consideration of and subject to the mutual covenants contained herein the Parties agree as follows:
1.0 When used in this Agreement, with initial capitalization, the terms specified shall have the meanings indicated in Transmission Provider's FERC-approved LGIP.
2.0 Interconnection Customer elects and Transmission Provider shall cause an Optional Interconnection Study consistent with Section 10.0 of this LGIP to be performed in accordance with the Tariff.
3.0 The scope of the Optional Interconnection Study shall be subject to the assumptions set forth in Attachment A to this Agreement.
4.0 The Optional Interconnection Study shall be performed solely for informational purposes.
5.0 The Optional Interconnection Study report shall provide a sensitivity analysis based on the assumptions specified by Interconnection Customer in Attachment A to this Agreement. The Optional Interconnection Study will identify Transmission Provider's Interconnection Facilities and the Network Upgrades, and the estimated cost thereof, that may be required to provide transmission service or interconnection service based upon the assumptions specified by Interconnection Customer in Attachment A.
6.0 Interconnection Customer shall provide a deposit of \$10,000 for the performance of the Optional Interconnection Study. Transmission Provider's good faith estimate for the time of completion of the Optional Interconnection Study is [insert date].
Upon receipt of the Optional Interconnection Study, Transmission Provider shall charge and Interconnection Customer shall pay the actual costs of the Optional Study.
Any difference between the initial payment and the actual cost of the study shall be paid by or refunded to Interconnection Customer, as appropriate.
7.0 Miscellaneous. The Optional Interconnection Study Agreement shall include standard miscellaneous terms including, but not limited to, indemnities, representations, disclaimers, warranties, governing law, amendment, execution, waiver, enforceability and assignment, that reflect best practices in the electric industry, and that are consistent with regional practices, Applicable Laws and Regulations, and the organizational nature of each Party. All of these provisions, to the extent practicable, shall be consistent with the provisions of the LGIP and the LGIA.
In witness whereof, the Parties have caused this Agreement to be duly executed by their duly authorized officers or agents on the day and year first above written.
[Insert name of Transmission Provider or Transmission Owner, if applicable]
By: _____

Title: _____
Date: _____
By: _____
Title: _____
Date: _____
[Insert name of Interconnection Customer]
By: _____
Title: _____
Date: _____

Appendix 5[6] to LGIP
Large Generator Interconnection Agreement (See LGIA)

Appendix 6[7]
Interconnection Procedures for A Wind Generating Plant

Appendix 6[7] sets forth procedures specific to a wind generating plant. All other requirements of this LGIP continue to apply to wind generating plant interconnections.
A. Special Procedures Applicable to Wind Generators
The wind plant Interconnection Customer, in completing the Interconnection Request required by S[ection] 3.3 of this LGIP, may provide to the Transmission Provider a set of preliminary electrical design specifications depicting the wind plant as a single equivalent generator. Upon satisfying these and other applicable Interconnection Request conditions, the wind plant may enter the queue and receive the base case data as provided for in this LGIP.
No later than six months after submitting an Interconnection Request completed in this manner, the wind plant Interconnection Customer must submit completed detailed electrical design specifications and other data (including collector system layout data) needed to allow the Transmission Provider to complete the [System Impact] Cluster Study.
Appendix 7 to LGIP
Transitional Cluster Study Agreement
This Agreement is made and entered into this ___ day of ___, 20___ by and between ___, a ___ organized and existing under the laws of the State of ___ ("Interconnection Customer"), and ___ a ___ organized and existing under the laws of the State of ___ ("Transmission Provider"). Interconnection Customer and Transmission Provider each may be referred to as a "Party," or collectively as the "Parties."
Recitals
Whereas, Interconnection Customer is proposing to develop a Large Generating Facility or generating capacity addition to an existing Generating Facility consistent with the Interconnection Request submitted by Interconnection Customer dated _____;
Whereas, Interconnection Customer desires to interconnect the Large Generating Facility with the Transmission System; and
Whereas, Interconnection Customer has requested Transmission Provider to perform a "Transitional Cluster Study," which combines the Cluster Study and Interconnection Facilities Study, in a single

cluster study, followed by any needed restudies, to specify and estimate the cost of the equipment, engineering, procurement, and construction work needed to physically and electrically connect the Large Generating Facility to Transmission Provider's Transmission System; and

Whereas, Interconnection Customer has a valid Queue Position as of the {Transmission Provider to insert effective date of compliance filing};

Now, therefore, in consideration of and subject to the mutual covenants contained herein, the Parties agree as follows:

1.0 When used in this Agreement, with initial capitalization, the terms specified shall have the meanings indicated in this LGIP.

2.0 Interconnection Customer elects, and Transmission Provider shall cause to be performed, a Transitional Cluster Study.

3.0 The Transitional Cluster Study shall be based upon the technical information provided by Interconnection Customer in the Interconnection Request. Transmission Provider reserves the right to request additional technical information from Interconnection Customer as may reasonably become necessary consistent with Good Utility Practice during the course of the Transitional Cluster Study and Interconnection Customer shall provide such data as quickly as reasonable.

4.0 Pursuant to Section 5.1.1.2 of this LGIP, the interim Transitional Cluster Study Report shall provide the information below:

- identification of any circuit breaker short circuit capability limits exceeded as a result of the interconnection;
- identification of any thermal overload or voltage limit violations resulting from the interconnection;

19.

- identification of any instability or inadequately damped response to system disturbances resulting from the interconnection; and
- Transmission Provider's Interconnection Facilities and Network Upgrades that are expected to be required as a result of the Interconnection Request(s) and a non-binding, good faith estimate of cost responsibility and a non-binding, good faith estimated time to construct.

5.0 Pursuant to Section 5.1.1.2 of this LGIP, the final Transitional Cluster Study Report shall: (1) provide all the information included in the interim Transitional Cluster Study Report; (2) provide a description of, estimated cost of, and schedule for required facilities to interconnect the Generating Facility to the Transmission System; and (3) address the short circuit, instability, and power flow issues identified in the interim Transitional Cluster Study Report.

6.0 Interconnection Customer has met the requirements described in Section 5.1.1.2 of this LGIP.

20.

7.0 Interconnection Customer previously provided a deposit for the performance of Interconnection Studies. Upon receipt of the final Transitional Cluster Study Report, Transmission Provider shall charge and Interconnection Customer shall pay the

actual costs of the Transitional Cluster Study. Any difference between the study deposit and the actual cost of the study shall be paid by or refunded to Interconnection Customer, in accordance with the provisions of Section 13.3 of this LGIP.

8.0 Miscellaneous. The Transitional Cluster Study Agreement shall include standard miscellaneous terms including, but not limited to, indemnities, representations, disclaimers, warranties, governing law, amendment, execution, waiver, enforceability and assignment, that reflect best practices in the electric industry, and that are consistent with regional practices, Applicable Laws and Regulations, and the organizational nature of each Party. All of these provisions, to the extent practicable, shall be consistent with the provisions of this LGIP and the LGIA.

In Witness Whereof, the Parties have caused this Agreement to be duly executed by their duly authorized officers or agents on the day and year first above written.

{Insert name of Transmission Provider or Transmission Owner, if applicable}

By: _____
Title: _____
Date: _____

{Insert name of Interconnection Customer}

By: _____
Title: _____
Date: _____

Appendix 8 to LGIP

Transitional Serial Interconnection Facilities Study Agreement

This Agreement is made and entered into this ____ day of _____, 20____, by and between _____, a _____ organized and existing under the laws of the State of _____ ("Interconnection Customer") and _____, a _____ organized and existing under the laws of the State of _____ ("Transmission Provider"). Interconnection Customer and Transmission Provider each may be referred to as a "Party," or collectively as the "Parties."

Recitals

Whereas, Interconnection Customer is proposing to develop a Large Generating Facility or generating capacity addition to an existing Large Generating Facility consistent with the Interconnection Request submitted by Interconnection Customer dated _____; and

Whereas, Interconnection Customer desires to interconnect the Large Generating Facility with the Transmission System; and

Whereas, Interconnection Customer has requested Transmission Provider to continue processing its Interconnection Facilities Study to specify and estimate the cost of the equipment, engineering, procurement, and construction work needed to implement the conclusions of the final interconnection system impact study (from the previously effective serial study process) in accordance with Good Utility Practice to physically and electrically connect the Large Generating Facility to the Transmission System; and

Whereas, Transmission Provider has provided an Interconnection Facilities Study Agreement to the Interconnection Customer

on or before {Transmission Provider to insert effective date of compliance filing}.

Now, therefore, in consideration of and subject to the mutual covenants contained herein, the Parties agree as follows:

1.0 When used in this Agreement, with initial capitalization, the terms specified shall have the meanings indicated in this LGIP.

2.0 Interconnection Customer elects and Transmission Provider shall cause to be performed an Interconnection Facilities Study consistent with Section 8 of this LGIP.

3.0 The scope of the Interconnection Facilities Study shall be subject to the assumptions set forth in Attachment A to this Agreement, which shall be the same assumptions as the previous Interconnection Facilities Study Agreement executed by the Interconnection Customer.

4.0 The Interconnection Facilities Study Report shall: (1) provide a description, estimated cost of (consistent with Attachment A), and schedule for required facilities to interconnect the Large Generating Facility to the Transmission System; and (2) address the short circuit, instability, and power flow issues identified in the most recently published Cluster Study Report.

5.0 Interconnection Customer has met the requirements described in Section 5.1.1.1 of this LGIP. The time for completion of the Interconnection Facilities Study is specified in Attachment A, and shall be no later than 150 Calendar Days after {Transmission Provider to insert effective date accepted on compliance}.

6.0 Interconnection Customer previously provided a deposit of _____ dollars (\$ _____) for the performance of the Interconnection Facilities Study.

7.0 Upon receipt of the Interconnection Facilities Study results, Transmission Provider shall charge and Interconnection Customer shall pay the actual costs of the Interconnection Facilities Study.

8.0 Any difference between the study deposit and the actual cost of the study shall be paid by or refunded to Interconnection Customer, as appropriate.

9.0 Miscellaneous. The Interconnection Facilities Study Agreement shall include standard miscellaneous terms including, but not limited to, indemnities, representations, disclaimers, warranties, governing law, amendment, execution, waiver, enforceability and assignment, that reflect best practices in the electric industry, and that are consistent with regional practices, Applicable Laws and Regulations, and the organizational nature of each Party. All of these provisions, to the extent practicable, shall be consistent with the provisions of this LGIP and this LGIA.

In Witness Whereof, the Parties have caused this Agreement to be duly executed by their duly authorized officers or agents on the day and year first above written.

{Insert name of Transmission Provider or Transmission Owner, if applicable}

By: _____
Title: _____
Date: _____

{Insert name of Interconnection Customer}

By: _____
Title: _____

Date: _____

Attachment A to Appendix 8

Transitional Serial Interconnection Facilities Study Agreement

Assumptions Used In Conducting The Transitional Serial Interconnection Facilities Study

{Assumptions to be completed by Interconnection Customer and Transmission Provider}

Appendix 9 to LGIP

Two-Party Affected System Study Agreement

This Agreement is made and entered into this ____ day of _____, 20____, by and between _____, a _____ organized and existing under the laws of the State of _____ (Affected System Interconnection Customer) and _____, a _____ organized and existing under the laws of the State of _____ (Transmission Provider). Affected System Interconnection Customer and Transmission Provider each may be referred to as a "Party," or collectively as the "Parties."

Recitals

Whereas, Affected System Interconnection Customer is proposing to develop a {description of generating facility or generating capacity addition to an existing generating facility} consistent with the interconnection request submitted by Affected System Interconnection Customer to {name of host transmission provider}, dated _____, for which {name of host transmission provider} found impacts on Transmission Provider's Transmission System; and

Whereas, Affected System Interconnection Customer desires to interconnect the {generating facility} with {name of host transmission provider}'s transmission system;

Now, therefore, in consideration of and subject to the mutual covenants contained herein, the Parties agree as follows:

1.0 When used in this Agreement, with initial capitalization, the terms specified shall have the meanings indicated in this LGIP.

2.0 Transmission Provider shall coordinate with Affected System Interconnection Customer to perform an Affected System Study consistent with Section 9 of this LGIP.

3.0 The scope of the Affected System Study shall be subject to the assumptions set forth in Attachment A to this Agreement.

4.0 The Affected System Study will be based upon the technical information provided by Affected System Interconnection Customer and {name of host transmission provider}. Transmission Provider reserves the right to request additional technical information from Affected System Interconnection Customer as may reasonably become necessary consistent with Good Utility Practice during the course of the Affected System Study.

5.0 The Affected System Study shall provide the following information:

- identification of any circuit breaker short circuit capability limits exceeded as a result of the interconnection;
- identification of any thermal overload or voltage limit violations resulting from the interconnection;
- identification of any instability or inadequately damped response to system disturbances resulting from the interconnection;
- non-binding, good faith estimated cost and time required to construct facilities required on Transmission Provider's Transmission System to accommodate the interconnection of the {generating facility} to the transmission system of the host transmission provider; and
- description of how such facilities will address the identified short circuit, instability, and power flow issues.

6.0 Affected System Interconnection Customer shall provide a deposit of ____ for performance of the Affected System Study. Upon receipt of the results of the Affected System Study by the Affected System Interconnection Customer, Transmission Provider shall charge, and Affected System Interconnection Customer shall pay, the actual cost of the Affected System Study. Any difference between the deposit and the actual cost of the Affected System Study shall be paid by or refunded to Affected System Interconnection Customer, as appropriate, including interest calculated in accordance with section 35.19a(2) of FERC's regulations.

7.0 This Agreement shall include standard miscellaneous terms including, but not limited to, indemnities, representations, disclaimers, warranties, governing law, amendment, execution, waiver, enforceability, and assignment, which reflect best practices in the electric industry, that are consistent with regional practices, Applicable Laws and Regulations and the organizational nature of each Party. All of these provisions, to the extent practicable, shall be consistent with the provisions of the LGIP.

In witness thereof, the Parties have caused this Agreement to be duly executed by their duly authorized officers or agents on the day and year first above written.

{Insert name of Transmission Provider}

By: _____
Title: _____
Date: _____
By: _____
Title: _____
Date: _____

{Insert name of Affected System Interconnection Customer}

By: _____
Title: _____
Date: _____
Project No. _____

Attachment A to Appendix 9—Two-Party Affected System Study Agreement

Assumptions Used In Conducting The Affected System Study

The Affected System Study will be based upon the following assumptions:

{Assumptions to be completed by Affected System Interconnection Customer and Transmission Provider}

Appendix 10 to LGIP

Multiparty Affected System Study Agreement

This Agreement is made and entered into this ____ day of _____, 20____, by and among _____, a _____ organized and existing under the laws of the State of _____ (Affected System Interconnection Customer); _____, a _____ organized and existing under the laws of the State of _____ (Affected System Interconnection Customer); and _____, a _____ organized and existing under the laws of the State of _____ (Transmission Provider).

Affected System Interconnection Customers and Transmission Provider each may be referred to as a "Party," or collectively as the "Parties." When it is not important to differentiate among them, Affected System Interconnection Customers each may be referred to as "Affected System Interconnection Customer" or collectively as the "Affected System Interconnection Customers."

Recitals

Whereas, Affected System Interconnection Customers are proposing to develop {description of generating facilities or generating capacity additions to an existing generating facility}, consistent with the interconnection requests submitted by Affected System Interconnection Customers to {name of host transmission provider}, dated _____, for which {name of host transmission provider} found impacts on Transmission Provider's Transmission System; and

Whereas, Affected System Interconnection Customers desire to interconnect the {generating facilities} with {name of host transmission provider}'s transmission system;

Now, therefore, in consideration of and subject to the mutual covenants contained herein, the Parties agree as follows:

1.0 When used in this Agreement, with initial capitalization, the terms specified shall have the meanings indicated in this LGIP.

2.0 Transmission Provider shall coordinate with Affected System Interconnection Customers to perform an Affected System Study consistent with Section 9 of this LGIP.

3.0 The scope of the Affected System Study shall be subject to the assumptions set forth in Attachment A to this Agreement.

4.0 The Affected System Study will be based upon the technical information provided by Affected System Interconnection Customers and {name of host transmission provider}. Transmission Provider reserves the right to request additional technical information from Affected System Interconnection Customers as may reasonably become necessary consistent with Good Utility Practice during the course of the Affected System Study.

5.0 The Affected System Study shall provide the following information:

- identification of any circuit breaker short circuit capability limits exceeded as a result of the interconnection;
- identification of any thermal overload or voltage limit violations resulting from the interconnection;
- identification of any instability or inadequately damped response to system disturbances resulting from the interconnection;
- non-binding, good faith estimated cost and time required to construct facilities required on Transmission Provider's Transmission System to accommodate the interconnection of the {generating facilities} to the transmission system of the host transmission provider; and
- description of how such facilities will address the identified short circuit, instability, and power flow issues.

6.0 Affected System Interconnection Customers shall each provide a deposit of _____ for performance of the Affected System Study. Upon receipt of the results of the Affected System Study by the Affected System Interconnection Customers, Transmission Provider shall charge, and Affected System Interconnection Customers shall pay, the actual cost of the Affected System Study. Any difference between the deposit and the actual cost of the Affected System Study shall be paid by or refunded to Affected System Interconnection Customers, as appropriate, including interest calculated in accordance with section 35.19a(a)(2) of FERC's regulations.

7.0 This Agreement shall include standard miscellaneous terms including, but not limited to, indemnities, representations, disclaimers, warranties, governing law, amendment, execution, waiver, enforceability, and assignment, which reflect best practices in the electric industry, that are consistent with regional practices, Applicable Laws and Regulations, and the organizational nature of each Party. All of these provisions, to the extent practicable, shall be consistent with the provisions of the LGIP.

In witness thereof, the Parties have caused this Agreement to be duly executed by their duly authorized officers or agents on the day and year first above written.

{Insert name of Transmission Provider}

By: _____

Title: _____

Date: _____

By: _____

Title: _____

Date: _____

{Insert name of Affected System Interconnection Customer}

By: _____

Title: _____

Date: _____

Project No. _____

{Insert name of Affected System Interconnection Customer}

By: _____

Title: _____

Date: _____

Project No. _____

Attachment A to Appendix 10— Multiparty Affected System Study Agreement

Assumptions Used in Conducting the Multiparty Affected System Study

The Affected System Study will be based upon the following assumptions:
{Assumptions to be completed by Affected System Interconnection Customers and Transmission Provider}

Appendix 11 to LGIP

Two-Party Affected System Facilities Construction Agreement

This Agreement is made and entered into this ____ day of _____, 20____, by and between _____, organized and existing under the laws of the State of _____ (Affected System Interconnection Customer) and _____, an entity organized under the laws of the State of _____ (Transmission Provider). Affected System Interconnection Customer and Transmission Provider each may be referred to as a "Party" or collectively as the "Parties."

Recitals

Whereas, Affected System Interconnection Customer is proposing to develop a {description of generating facility or generating capacity addition to an existing generating facility} consistent with the interconnection request submitted by Affected System Interconnection Customer to {name of host transmission provider}, dated _____, for which {name of host transmission provider} found impacts on Transmission Provider's Transmission System; and

Whereas, Affected System Interconnection Customer desires to interconnect the {generating facility} to {name of host transmission provider}'s transmission system; and

Whereas, additions, modifications, and upgrade(s) must be made to certain existing facilities of Transmission Provider's Transmission System to accommodate such interconnection; and

Whereas, Affected System Interconnection Customer has requested, and Transmission Provider has agreed, to enter into this Agreement for the purpose of facilitating the construction of necessary Affected System Network Upgrade(s);

Now, therefore, in consideration of and subject to the mutual covenants contained herein, the Parties agree as follows:

Article 1—Definitions

When used in this Agreement, with initial capitalization, the terms specified and not otherwise defined in this Agreement shall have the meanings indicated in this LGIP.

Article 2—Term of Agreement

2.1 Effective Date. This Agreement shall become effective upon execution by the Parties subject to acceptance by FERC (if applicable), or if filed unexecuted, upon the date specified by FERC.

2.2 Term.

2.2.1 General. This Agreement shall become effective as provided in Article 2.1

and shall continue in full force and effect until the earlier of (1) the final repayment, where applicable, by Transmission Provider of the amount funded by Affected System Interconnection Customer for Transmission Provider's design, procurement, construction and installation of the Affected System Network Upgrade(s) provided in Appendix A; (2) the Parties agree to mutually terminate this Agreement; (3) earlier termination is permitted or provided for under Appendix A of this Agreement; or (4) Affected System Interconnection Customer terminates this Agreement after providing Transmission Provider with written notice at least sixty (60) Calendar Days prior to the proposed termination date, provided that Affected System Interconnection Customer has no outstanding contractual obligations to Transmission Provider under this Agreement. No termination of this Agreement shall be effective until the Parties have complied with all Applicable Laws and Regulations applicable to such termination. The term of this Agreement may be adjusted upon mutual agreement of the Parties if (1) the commercial operation date for the {generating facility} is adjusted in accordance with the rules and procedures established by {name of host transmission provider} or (2) the in-service date for the Affected System Network Upgrade(s) is adjusted in accordance with the rules and procedures established by Transmission Provider.

2.2.2 Termination Upon Default. Default shall mean the failure of a Breaching Party to cure its Breach in accordance with Article 5 of this Agreement where Breach and Breaching Party are defined in Article 5. Defaulting Party shall mean the Party that is in Default. In the event of a Default by a Party, the non-Defaulting Party shall have the termination rights described in Articles 5 and 6; provided, however, Transmission Provider may not terminate this Agreement if Affected System Interconnection Customer is the Defaulting Party and compensates Transmission Provider within thirty (30) Calendar Days for the amount of damages billed to Affected System Interconnection Customer by Transmission Provider for any such damages, including costs and expenses, incurred by Transmission Provider as a result of such Default.

2.2.3 Consequences of Termination. In the event of a termination by either Party, other than a termination by Affected System Interconnection Customer due to a Default by Transmission Provider, Affected System Interconnection Customer shall be responsible for the payment to Transmission Provider of all amounts then due and payable for construction and installation of the Affected System Network Upgrade(s) (including, without limitation, any equipment ordered related to such construction), plus all out-of-pocket expenses incurred by Transmission Provider in connection with the construction and installation of the Affected System Network Upgrade(s), through the date of termination, and, in the event of the termination of the entire Agreement, any actual costs which Transmission Provider reasonably incurs in (1) winding up work and construction demobilization and (2) ensuring the safety of

persons and property and the integrity and safe and reliable operation of Transmission Provider's Transmission System. Transmission Provider shall use Reasonable Efforts to minimize such costs.

2.2.4 **Reservation of Rights.** Transmission Provider shall have the right to make a unilateral filing with FERC to modify this Agreement with respect to any rates, terms and conditions, charges, classifications of service, rule or regulation under section 205 or any other applicable provision of the Federal Power Act and FERC's rules and regulations thereunder, and Affected System Interconnection Customer shall have the right to make a unilateral filing with FERC to modify this Agreement pursuant to section 206 or any other applicable provision of the Federal Power Act and FERC's rules and regulations thereunder; provided that each Party shall have the right to protest any such filing by the other Party and to participate fully in any proceeding before FERC in which such modifications may be considered. Nothing in this Agreement shall limit the rights of the Parties or of FERC under sections 205 or 206 of the Federal Power Act and FERC's rules and regulations thereunder, except to the extent that the Parties otherwise mutually agree as provided herein.

2.3 **Filing.** Transmission Provider shall file this Agreement (and any amendment hereto) with the appropriate Governmental Authority, if required. Affected System Interconnection Customer may request that any information so provided be subject to the confidentiality provisions of Article 8. If Affected System Interconnection Customer has executed this Agreement, or any amendment thereto, Affected System Interconnection Customer shall reasonably cooperate with Transmission Provider with respect to such filing and to provide any information reasonably requested by Transmission Provider needed to comply with applicable regulatory requirements.

2.4 **Survival.** This Agreement shall continue in effect after termination, to the extent necessary, to provide for final billings and payments and for costs incurred hereunder, including billings and payments pursuant to this Agreement; to permit the determination and enforcement of liability and indemnification obligations arising from acts or events that occurred while this Agreement was in effect; and to permit each Party to have access to the lands of the other Party pursuant to this Agreement or other applicable agreements, to disconnect, remove, or salvage its own facilities and equipment.

2.5 **Termination Obligations.** Upon any termination pursuant to this Agreement, Affected System Interconnection Customer shall be responsible for the payment of all costs or other contractual obligations incurred prior to the termination date, including previously incurred capital costs, penalties for early termination, and costs of removal and site restoration.

Article 3—Construction of Affected System Network Upgrade(s)

3.1 Construction.

3.1.1 **Transmission Provider Obligations.** Transmission Provider shall (or shall cause

such action to) design, procure, construct, and install, and Affected System Interconnection Customer shall pay, consistent with Article 3.2, the costs of all Affected System Network Upgrade(s) identified in Appendix A. All Affected System Network Upgrade(s) designed, procured, constructed, and installed by Transmission Provider pursuant to this Agreement shall satisfy all requirements of applicable safety and/or engineering codes and comply with Good Utility Practice, and further, shall satisfy all Applicable Laws and Regulations. Transmission Provider shall not be required to undertake any action which is inconsistent with its standard safety practices, its material and equipment specifications, its design criteria and construction procedures, its labor agreements, or any Applicable Laws and Regulations.

3.1.2 Suspension of Work.

3.1.2.1 **Right to Suspend.** Affected System Interconnection Customer must provide to Transmission Provider written notice of its request for suspension. Only the milestones described in the Appendices of this Agreement are subject to suspension under this Article 3.1.2. Affected System Network Upgrade(s) will be constructed on the schedule described in the Appendices of this Agreement unless: (1) construction is prevented by the order of a Governmental Authority; (2) the Affected System Network Upgrade(s) are not needed by any other Interconnection Customer; or (3) Transmission Provider determines that a Force Majeure event prevents construction. In the event of (1), (2), or (3), any security paid to Transmission Provider under Article 4.1 of this Agreement shall be released by Transmission Provider upon the determination by Transmission Provider that the Affected System Network Upgrade(s) will no longer be constructed. If suspension occurs, Affected System Interconnection Customer shall be responsible for the costs which Transmission Provider incurs (i) in accordance with this Agreement prior to the suspension; (ii) in suspending such work, including any costs incurred to perform such work as may be necessary to ensure the safety of persons and property and the integrity of Transmission Provider's Transmission System and, if applicable, any costs incurred in connection with the cancellation of contracts and orders for material which Transmission Provider cannot reasonably avoid; and (iii) reasonably incurs in winding up work and construction demobilization; provided, however, that, prior to canceling any such contracts or orders, Transmission Provider shall obtain Affected System Interconnection Customer's authorization. Affected System Interconnection Customer shall be responsible for all costs incurred in connection with Affected System Interconnection Customer's failure to authorize cancellation of such contracts or orders.

Interest on amounts paid by Affected System Interconnection Customer to Transmission Provider for the design, procurement, construction, and installation of the Affected System Network Upgrade(s)

shall not accrue during periods in which Affected System Interconnection Customer has suspended construction under this Article 3.1.2.

Transmission Provider shall invoice Affected System Interconnection Customer pursuant to Article 4 and will use Reasonable Efforts to minimize its costs. In the event Affected System Interconnection Customer suspends work by Affected System Transmission Provider required under this Agreement pursuant to this Article 3.1.2.1, and has not requested Affected System Transmission Provider to recommence the work required under this Agreement on or before the expiration of three (3) years following commencement of such suspension, this Agreement shall be deemed terminated. The three-year period shall begin on the date the suspension is requested, or the date of the written notice to Affected System Transmission Provider, whichever is earlier, if no effective date of suspension is specified.

3.1.2.2 **Recommencing of Work.** If Affected System Interconnection Customer requests that Transmission Provider recommence construction of Affected System Network Upgrade(s), Transmission Provider shall have no obligation to afford such work the priority it would have had but for the prior actions of Affected System Interconnection Customer to suspend the work. In such event, Affected System Interconnection Customer shall be responsible for any costs incurred in recommencing the work. All recommenced work shall be completed pursuant to an amended schedule for the interconnection agreed to by the Parties. Transmission Provider has the right to conduct a restudy of the Affected System Study if conditions have materially changed subsequent to the request to suspend. Affected System Interconnection Customer shall be responsible for the costs of any studies or restudies required.

3.1.2.3 **Right to Suspend Due to Default.** Transmission Provider reserves the right, upon written notice to Affected System Interconnection Customer, to suspend, at any time, work by Transmission Provider due to Default by Affected System Interconnection Customer. Affected System Interconnection Customer shall be responsible for any additional expenses incurred by Transmission Provider associated with the construction and installation of the Affected System Network Upgrade(s) (as set forth in Article 2.2.3) upon the occurrence of either a Breach that Affected System Interconnection Customer is unable to cure pursuant to Article 5 or a Default pursuant to Article 5. Any form of suspension by Transmission Provider shall not be barred by Articles 2.2.2, 2.2.3, or 5.2.2, nor shall it affect Transmission Provider's right to terminate the work or this Agreement pursuant to Article 6.

3.1.3 **Construction Status.** Transmission Provider shall keep Affected System Interconnection Customer advised periodically as to the progress of its design, procurement and construction efforts, as described in Appendix A. Affected System Interconnection Customer may, at any time

and reasonably, request a progress report from Transmission Provider. If, at any time, Affected System Interconnection Customer determines that the completion of the Affected System Network Upgrade(s) will not be required until after the specified in-service date, Affected System Interconnection Customer will provide written notice to Transmission Provider of such later date upon which the completion of the Affected System Network Upgrade(s) would be required. Transmission Provider may delay the in-service date of the Affected System Network Upgrade(s) accordingly.

3.1.4 *Timely Completion.* Transmission Provider shall use Reasonable Efforts to design, procure, construct, install, and test the Affected System Network Upgrade(s) in accordance with the schedule set forth in Appendix A, which schedule may be revised from time to time by mutual agreement of the Parties. If any event occurs that will affect the time or ability to complete the Affected System Network Upgrade(s), Transmission Provider shall promptly notify Affected System Interconnection Customer. In such circumstances, Transmission Provider shall, within fifteen (15) Calendar Days of such notice, convene a meeting with Affected System Interconnection Customer to evaluate the alternatives available to Affected System Interconnection Customer. Transmission Provider shall also make available to Affected System Interconnection Customer all studies and work papers related to the event and corresponding delay, including all information that is in the possession of Transmission Provider that is reasonably needed by Affected System Interconnection Customer to evaluate alternatives, subject to confidentiality arrangements consistent with Article 8. Transmission Provider shall, at Affected System Interconnection Customer's request and expense, use Reasonable Efforts to accelerate its work under this Agreement to meet the schedule set forth in Appendix A, provided that (1) Affected System Interconnection Customer authorizes such actions, such authorization to be withheld, conditioned, or delayed by Affected System Interconnection Customer only if it can demonstrate that the acceleration would have a material adverse effect on it; and (2) the Affected System Interconnection Customer funds costs associated therewith in advance.

3.2 Interconnection Costs.

3.2.1 *Costs.* Affected System Interconnection Customer shall pay to Transmission Provider costs (including taxes and financing costs) associated with seeking and obtaining all necessary approvals and of designing, engineering, constructing, and testing the Affected System Network Upgrade(s), as identified in Appendix A, in accordance with the cost recovery method provided herein. Unless Transmission Provider elects to fund the Affected System Network Upgrade(s), they shall be initially funded by Affected System Interconnection Customer.

3.2.1.1 *Lands of Other Property Owners.* If any part of the Affected System Network Upgrade(s) is to be installed on property owned by persons other than Affected System Interconnection Customer or Transmission

Provider, Transmission Provider shall, at Affected System Interconnection Customer's expense, use efforts similar in nature and extent to those that it typically undertakes on its own behalf or on behalf of its Affiliates, including use of its eminent domain authority to the extent permitted and consistent with Applicable Laws and Regulations and, to the extent consistent with such Applicable Laws and Regulations, to procure from such persons any rights of use, licenses, rights-of-way, and easements that are necessary to construct, operate, maintain, test, inspect, replace, or remove the Affected System Network Upgrade(s) upon such property.

3.2.2 Repayment.

3.2.2.1 *Repayment.* Consistent with Articles 11.4.1 and 11.4.2 of the Transmission Provider's pro forma LGIA, Affected System Interconnection Customer shall be entitled to a cash repayment by Transmission Provider of the amount paid to Transmission Provider, if any, for the Affected System Network Upgrade(s), including any tax gross-up or other tax-related payments associated with the Affected System Network Upgrade(s), and not refunded to Affected System Interconnection Customer pursuant to Article 3.3.1 or otherwise. The Parties may mutually agree to a repayment schedule, to be outlined in Appendix A, not to exceed twenty (20) years from the commercial operation date, for the complete repayment for all applicable costs associated with the Affected System Network Upgrade(s). Any repayment shall include interest calculated in accordance with the methodology set forth in FERC's regulations at 18 CFR 35.19 a(a)(2)(iii) from the date of any payment for Affected System Network Upgrade(s) through the date on which Affected System Interconnection Customer receives a repayment of such payment pursuant to this subparagraph. Interest shall not accrue during periods in which Affected System Interconnection Customer has suspended construction pursuant to Article 3.1.2. Affected System Interconnection Customer may assign such repayment rights to any person.

3.2.2.2 *Impact of Failure to Achieve Commercial Operation.* If the Affected System Interconnection Customer's generating facility fails to achieve commercial operation, but it or another generating facility is later constructed and makes use of the Affected System Network Upgrade(s), Transmission Provider shall at that time reimburse Affected System Interconnection Customer for the amounts advanced for the Affected System Network Upgrade(s). Before any such reimbursement can occur, Affected System Interconnection Customer (or the entity that ultimately constructs the generating facility, if different), is responsible for identifying the entity to which the reimbursement must be made.

3.3 Taxes.

3.3.1 *Indemnification for Contributions in Aid of Construction.* With regard only to payments made by Affected System Interconnection Customer to Transmission Provider for the installation of the Affected System Network Upgrade(s), Transmission Provider shall not include a gross-up for

income taxes in the amounts it charges Affected System Interconnection Customer for the installation of the Affected System Network Upgrade(s) unless (1) Transmission Provider has determined, in good faith, that the payments or property transfers made by Affected System Interconnection Customer to Transmission Provider should be reported as income subject to taxation, or (2) any Governmental Authority directs Transmission Provider to report payments or property as income subject to taxation. Affected System Interconnection Customer shall reimburse Transmission Provider for such costs on a fully grossed-up basis, in accordance with this Article, within thirty (30) Calendar Days of receiving written notification from Transmission Provider of the amount due, including detail about how the amount was calculated.

The indemnification obligation shall terminate at the earlier of (1) the expiration of the ten (10)-year testing period and the applicable statute of limitation, as it may be extended by Transmission Provider upon request of the Internal Revenue Service, to keep these years open for audit or adjustment, or (2) the occurrence of a subsequent taxable event and the payment of any related indemnification obligations as contemplated by this Article. Notwithstanding the foregoing provisions of this Article 3.3.1, and to the extent permitted by law, to the extent that the receipt of such payments by Transmission Provider is determined by any Governmental Authority to constitute income by Transmission Provider subject to taxation, Affected System Interconnection Customer shall protect, indemnify, and hold harmless Transmission Provider and its Affiliates, from all claims by any such Governmental Authority for any tax, interest, and/or penalties associated with such determination. Upon receiving written notification of such determination from the Governmental Authority, Transmission Provider shall provide Affected System Interconnection Customer with written notification within thirty (30) Calendar Days of such determination and notification. Transmission Provider, upon the timely written request by Affected System Interconnection Customer and at Affected System Interconnection Customer's expense, shall appeal, protest, seek abatement of, or otherwise oppose such determination. Transmission Provider reserves the right to make all decisions with regard to the prosecution of such appeal, protest, abatement or other contest, including the compromise or settlement of the claim; provided that Transmission Provider shall cooperate and consult in good faith with Affected System Interconnection Customer regarding the conduct of such contest. Affected System Interconnection Customer shall not be required to pay Transmission Provider for the tax, interest, and/or penalties prior to the seventh (7th) Calendar Day before the date on which Transmission Provider (1) is required to pay the tax, interest, and/or penalties or other amount in lieu thereof pursuant to a compromise or settlement of the appeal, protest, abatement, or other contest; (2) is required to pay the tax, interest, and/or penalties as the result of a

final, non-appealable order by a Governmental Authority; or (3) is required to pay the tax, interest, and/or penalties as a prerequisite to an appeal, protest, abatement, or other contest. In the event such appeal, protest, abatement, or other contest results in a determination that Transmission Provider is not liable for any portion of any tax, interest, and/or penalties for which Affected System Interconnection Customer has already made payment to Transmission Provider, Transmission Provider shall promptly refund to Affected System Interconnection Customer any payment attributable to the amount determined to be non-taxable, plus any interest (calculated in accordance with 18 CFR 35.19a(a)(2)(iii)) or other payments Transmission Provider receives or which Transmission Provider may be entitled with respect to such payment. Affected System Interconnection Customer shall provide Transmission Provider with credit assurances sufficient to meet Affected System Interconnection Customer's estimated liability for reimbursement of Transmission Provider for taxes, interest, and/or penalties under this Article 3.3.1. Such estimated liability shall be stated in Appendix A.

To the extent that Transmission Provider is a limited liability company and not a corporation, and has elected to be taxed as a partnership, then the following shall apply: Transmission Provider represents, and the Parties acknowledge, that Transmission Provider is a limited liability company and is treated as a partnership for federal income tax purposes. Any payment made by Affected System Interconnection Customer to Transmission Provider for Affected System Network Upgrade(s) is to be treated as an upfront payment. It is anticipated by the Parties that any amounts paid by Affected System Interconnection Customer to Transmission Provider for Affected System Network Upgrade(s) will be reimbursed to Affected System Interconnection Customer in accordance with the terms of this Agreement, provided Affected System Interconnection Customer fulfills its obligations under this Agreement.

3.3.2 Private Letter Ruling. At Affected System Interconnection Customer's request and expense, Transmission Provider shall file with the Internal Revenue Service a request for a private letter ruling as to whether any property transferred or sums paid, or to be paid, by Affected System Interconnection Customer to Transmission Provider under this Agreement are subject to federal income taxation. Affected System Interconnection Customer will prepare the initial draft of the request for a private letter ruling and will certify under penalties of perjury that all facts represented in such request are true and accurate to the best of Affected System Interconnection Customer's knowledge. Transmission Provider and Affected System Interconnection Customer shall cooperate in good faith with respect to the submission of such request.

3.3.3 Other Taxes. Upon the timely request by Affected System Interconnection Customer, and at Affected System Interconnection Customer's sole expense, Transmission Provider shall appeal, protest, seek abatement of, or otherwise contest any

tax (other than federal or state income tax) asserted or assessed against Transmission Provider for which Affected System Interconnection Customer may be required to reimburse Transmission Provider under the terms of this Agreement. Affected System Interconnection Customer shall pay to Transmission Provider on a periodic basis, as invoiced by Transmission Provider, Transmission Provider's documented reasonable costs of prosecuting such appeal, protest, abatement, or other contest. Affected System Interconnection Customer and Transmission Provider shall cooperate in good faith with respect to any such contest. Unless the payment of such taxes is a prerequisite to an appeal or abatement or cannot be deferred, no amount shall be payable by Affected System Interconnection Customer to Transmission Provider for such taxes until they are assessed by a final, non-appealable order by any court or agency of competent jurisdiction. In the event that a tax payment is withheld and ultimately due and payable after appeal, Affected System Interconnection Customer will be responsible for all taxes, interest and penalties, other than penalties attributable to any delay caused by Transmission Provider. Each Party shall cooperate with the other Party to maintain each Party's tax status. Nothing in this Agreement is intended to adversely affect any Party's tax-exempt status with respect to the issuance of bonds including, but not limited to, local furnishing bonds, as described in section 142(f) of the Internal Revenue Code.

Article 4

Security, Billing, and Payments

4.1 Provision of Security. By the earlier of (1) thirty (30) Calendar Days prior to the due date for Affected System Interconnection Customer's first payment under the payment schedule specified in Appendix A, or (2) the first date specified in Appendix A for the ordering of equipment by Transmission Provider for installing the Affected System Network Upgrade(s), Affected System Interconnection Customer shall provide Transmission Provider, at Affected System Interconnection Customer's option, a guarantee, a surety bond, letter of credit or other form of security that is reasonably acceptable to Transmission Provider. Such security for payment shall be in an amount sufficient to cover the costs for constructing, procuring, and installing the applicable portion of Affected System Network Upgrade(s) and shall be reduced on a dollar-for-dollar basis for payments made to Transmission Provider for these purposes.

The guarantee must be made by an entity that meets the creditworthiness requirements of Transmission Provider and contain terms and conditions that guarantee payment of any amount that may be due from Affected System Interconnection Customer, up to an agreed-to maximum amount. The letter of credit must be issued by a financial institution reasonably acceptable to Transmission Provider and must specify a reasonable expiration date. The surety bond must be issued by an insurer reasonably acceptable to Transmission Provider and must specify a reasonable expiration date.

4.2 Invoice. Each Party shall submit to the other Party, on a monthly basis, invoices of amounts due, if any, for the preceding month. Each invoice shall state the month to which the invoice applies and fully describe the services and equipment provided. The Parties may discharge mutual debts and payment obligations due and owing to each other on the same date through netting, in which case all amounts a Party owes to the other Party under this Agreement, including interest payments, shall be netted so that only the net amount remaining due shall be paid by the owing Party.

4.3 Payment. Invoices shall be rendered to the paying Party at the address specified by the Parties. The Party receiving the invoice shall pay the invoice within thirty (30) Calendar Days of receipt. All payments shall be made in immediately available funds payable to the other Party, or by wire transfer to a bank named and account designated by the invoicing Party. Payment of invoices by a Party will not constitute a waiver of any rights or claims that Party may have under this Agreement.

4.4 Final Invoice. Within six (6) months after completion of the construction of the Affected System Network Upgrade(s), Transmission Provider shall provide an invoice of the final cost of the construction of the Affected System Network Upgrade(s) and shall set forth such costs in sufficient detail to enable Affected System Interconnection Customer to compare the actual costs with the estimates and to ascertain deviations, if any, from the cost estimates. Transmission Provider shall refund, with interest (calculated in accordance with 18 CFR 35.19a(a)(2)(iii)), to Affected System Interconnection Customer any amount by which the actual payment by Affected System Interconnection Customer for estimated costs exceeds the actual costs of construction within thirty (30) Calendar Days of the issuance of such final construction invoice.

4.5 Interest. Interest on any unpaid amounts shall be calculated in accordance with 18 CFR 35.19a(a)(2)(iii).

4.6 Payment During Dispute. In the event of a billing dispute among the Parties, Transmission Provider shall continue to construct the Affected System Network Upgrade(s) under this Agreement as long as Affected System Interconnection Customer: (1) continues to make all payments not in dispute; and (2) pays to Transmission Provider or into an independent escrow account the portion of the invoice in dispute, pending resolution of such dispute. If Affected System Interconnection Customer fails to meet these two requirements, then Transmission Provider may provide notice to Affected System Interconnection Customer of a Default pursuant to Article 5. Within thirty (30) Calendar Days after the resolution of the dispute, the Party that owes money to another Party shall pay the amount due with interest calculated in accordance with the methodology set forth in 18 CFR 35.19a(a)(2)(iii).

Article 5

Breach, Cure and Default

5.1 Events of Breach. A Breach of this Agreement shall include the:

(a) Failure to pay any amount when due;
(b) Failure to comply with any material term or condition of this Agreement, including but not limited to any material Breach of a representation, warranty, or covenant made in this Agreement;

(c) Failure of a Party to provide such access rights, or a Party's attempt to revoke access or terminate such access rights, as provided under this Agreement; or

(d) Failure of a Party to provide information or data to another Party as required under this Agreement, provided the Party entitled to the information or data under this Agreement requires such information or data to satisfy its obligations under this Agreement.

5.2 Definition. Breaching Party shall mean the Party that is in Breach.

5.3 Notice of Breach, Cure, and Default. Upon the occurrence of an event of Breach, the Party not in Breach, when it becomes aware of the Breach, shall give written notice of the Breach to the Breaching Party and to any other person representing a Party to this Agreement identified in writing to the other Party in advance. Such notice shall set forth, in reasonable detail, the nature of the Breach, and where known and applicable, the steps necessary to cure such Breach.

5.3.1 Upon receiving written notice of the Breach hereunder, the Breaching Party shall have a period to cure such Breach (hereinafter referred to as the "Cure Period") which shall be sixty (60) Calendar Days.

5.3.2 In the event the Breaching Party fails to cure within the Cure Period, the Breaching Party will be in Default of this Agreement, and the non-Defaulting Party may terminate this Agreement in accordance with Article 6.2 of this Agreement or take whatever action at law or in equity as may appear necessary or desirable to enforce the performance or observance of any rights, remedies, obligations, agreement, or covenants under this Agreement.

5.4 Rights in the Event of Default. Notwithstanding the foregoing, upon the occurrence of a Default, the non-Defaulting Party shall be entitled to exercise all rights and remedies it may have in equity or at law.

Article 6

Termination of Agreement

6.1 Expiration of Term. Except as otherwise specified in this Article 6, the Parties' obligations under this Agreement shall terminate at the conclusion of the term of this Agreement.

6.2 Termination. In addition to the termination provisions set forth in Article 2.2, a Party may terminate this Agreement upon the Default of the other Party in accordance with Article 5.2.2 of this Agreement. Subject to the limitations set forth in Article 6.3, in the event of a Default, the termination of this Agreement by the non-Defaulting Party shall require a filing at FERC of a notice of termination, which filing must be accepted for filing by FERC.

6.3 Disposition of Facilities Upon Termination of Agreement.

6.3.1 Transmission Provider Obligations. Upon termination of this Agreement, unless otherwise agreed to by the Parties in writing, Transmission Provider:

(a) shall, prior to the construction and installation of any portion of the Affected System Network Upgrade(s) and to the extent possible, cancel any pending orders of, or return, such equipment or material for such Affected System Network Upgrade(s);

(b) may keep in place any portion of the Affected System Network Upgrade(s) already constructed and installed; and,

(c) shall perform such work as may be necessary to ensure the safety of persons and property and to preserve the integrity of Transmission Provider's Transmission System (e.g., construction demobilization to return the system to its original state, wind-up work).

6.3.2 Affected System Interconnection Customer Obligations. Upon billing by Transmission Provider, Affected System Interconnection Customer shall reimburse Transmission Provider for any costs incurred by Transmission Provider in performance of the actions required or permitted by Article 6.3.1 and for the cost of any Affected System Network Upgrade(s) described in Appendix A. Transmission Provider shall use Reasonable Efforts to minimize costs and shall offset the amounts owed by any salvage value of facilities, if applicable. Affected System Interconnection Customer shall pay these costs pursuant to Article 4.3 of this Agreement.

6.3.3 Pre-construction or Installation. Upon termination of this Agreement and prior to the construction and installation of any portion of the Affected System Network Upgrade(s), Transmission Provider may, at its option, retain any portion of such Affected System Network Upgrade(s) not cancelled or returned in accordance with Article 6.3.1(a), in which case Transmission Provider shall be responsible for all costs associated with procuring such Affected System Network Upgrade(s). To the extent that Affected System Interconnection Customer has already paid Transmission Provider for any or all of such costs, Transmission Provider shall refund Affected System Interconnection Customer for those payments. If Transmission Provider elects to not retain any portion of such facilities, Transmission Provider shall convey and make available to Affected System Interconnection Customer such facilities as soon as practicable after Affected System Interconnection Customer's payment for such facilities.

6.4 Survival of Rights. Termination or expiration of this Agreement shall not relieve either Party of any of its liabilities and obligations arising hereunder prior to the date termination becomes effective, and each Party may take whatever judicial or administrative actions as appear necessary or desirable to enforce its rights hereunder. The applicable provisions of this Agreement will continue in effect after expiration, or early termination hereof to the extent necessary to provide for (1) final billings, billing adjustments, and other billing procedures set forth in this Agreement; (2) the determination and enforcement of liability and indemnification obligations arising from acts or events that occurred while this Agreement was in effect; and (3) the confidentiality provisions set forth in Article 8.

Article 7

Subcontractors

7.1 Subcontractors. Nothing in this Agreement shall prevent a Party from utilizing the services of subcontractors, as it deems appropriate, to perform its obligations under this Agreement; provided, however, that each Party shall require its subcontractors to comply with all applicable terms and conditions of this Agreement in providing such services, and each Party shall remain primarily liable to the other Party for the performance of such subcontractor.

7.1.1 Responsibility of Principal. The creation of any subcontract relationship shall not relieve the hiring Party of any of its obligations under this Agreement. In accordance with the provisions of this Agreement, each Party shall be fully responsible to the other Party for the acts or omissions of any subcontractor it hires as if no subcontract had been made. Any applicable obligation imposed by this Agreement upon a Party shall be equally binding upon, and shall be construed as having application to, any subcontractor of such Party.

7.1.2 No Third-Party Beneficiary. Except as may be specifically set forth to the contrary herein, no subcontractor or any other party is intended to be, nor will it be deemed to be, a third-party beneficiary of this Agreement.

7.1.3 No Limitation by Insurance. The obligations under this Article 7 will not be limited in any way by any limitation of any insurance policies or coverages, including any subcontractor's insurance.

Article 8

Confidentiality

8.1 Confidentiality. Confidential Information shall include, without limitation, all information relating to a Party's technology, research and development, business affairs, and pricing, and any information supplied to the other Party prior to the execution of this Agreement.

Information is Confidential Information only if it is clearly designated or marked in writing as confidential on the face of the document, or, if the information is conveyed orally or by inspection, if the Party providing the information orally informs the Party receiving the information that the information is confidential. The Parties shall maintain as confidential any information that is provided and identified by a Party as Critical Energy Infrastructure Information (CEII), as that term is defined in 18 CFR 388.113(c).

Such confidentiality will be maintained in accordance with this Article 8. If requested by the receiving Party, the disclosing Party shall provide in writing, the basis for asserting that the information referred to in this Article warrants confidential treatment, and the requesting Party may disclose such writing to the appropriate Governmental Authority. Each Party shall be responsible for the costs associated with affording confidential treatment to its information.

8.1.1 Term. During the term of this Agreement, and for a period of three (3) years after the expiration or termination of this

Agreement, except as otherwise provided in this Article 8 or with regard to CEII, each Party shall hold in confidence and shall not disclose to any person Confidential Information. CEII shall be treated in accordance with FERC policies and regulations.

8.1.2 Scope. Confidential Information shall not include information that the receiving Party can demonstrate: (1) is generally available to the public other than as a result of a disclosure by the receiving Party; (2) was in the lawful possession of the receiving Party on a non-confidential basis before receiving it from the disclosing Party; (3) was supplied to the receiving Party without restriction by a non-Party, who, to the knowledge of the receiving Party after due inquiry, was under no obligation to the disclosing Party to keep such information confidential; (4) was independently developed by the receiving Party without reference to Confidential Information of the disclosing Party; (5) is, or becomes, publicly known, through no wrongful act or omission of the receiving Party or Breach of this Agreement; or (6) is required, in accordance with Article 8.1.6 of this Agreement, to be disclosed by any Governmental Authority or is otherwise required to be disclosed by law or subpoena, or is necessary in any legal proceeding establishing rights and obligations under this Agreement. Information designated as Confidential Information will no longer be deemed confidential if the Party that designated the information as confidential notifies the receiving Party that it no longer is confidential.

8.1.3 Release of Confidential Information. No Party shall release or disclose Confidential Information to any other person, except to its Affiliates (limited by the Standards of Conduct requirements), subcontractors, employees, agents, consultants, or to non-Parties that may be or are considering providing financing to or equity participation with Affected System Interconnection Customer, or to potential purchasers or assignees of Affected System Interconnection Customer, on a need-to-know basis in connection with this Agreement, unless such person has first been advised of the confidentiality provisions of this Article 8 and has agreed to comply with such provisions. Notwithstanding the foregoing, a Party providing Confidential Information to any person shall remain primarily responsible for any release of Confidential Information in contravention of this Article 8.

8.1.4 Rights. Each Party shall retain all rights, title, and interest in the Confidential Information that it discloses to the receiving Party. The disclosure by a Party to the receiving Party of Confidential Information shall not be deemed a waiver by the disclosing Party or any other person or entity of the right to protect the Confidential Information from public disclosure.

8.1.5 Standard of Care. Each Party shall use at least the same standard of care to protect Confidential Information it receives as it uses to protect its own Confidential Information from unauthorized disclosure, publication, or dissemination. Each Party may use Confidential Information solely to

fulfill its obligations to the other Party under this Agreement or its regulatory requirements.

8.1.6 Order of Disclosure. If a court or a Government Authority or entity with the right, power, and apparent authority to do so requests or requires either Party, by subpoena, oral deposition, interrogatories, requests for production of documents, administrative order, or otherwise, to disclose Confidential Information, that Party shall provide the disclosing Party with prompt notice of such request(s) or requirement(s) so that the disclosing Party may seek an appropriate protective order or waive compliance with the terms of this Agreement. Notwithstanding the absence of a protective order or waiver, the Party may disclose such Confidential Information which, in the opinion of its counsel, the Party is legally compelled to disclose. Each Party will use Reasonable Efforts to obtain reliable assurance that confidential treatment will be accorded any Confidential Information so furnished.

8.1.7 Termination of Agreement. Upon termination of this Agreement for any reason, each Party shall, within ten (10) Business Days of receipt of a written request from the other Party, use Reasonable Efforts to destroy, erase, or delete (with such destruction, erasure, and deletion certified in writing to the requesting Party) or return to the requesting Party any and all written or electronic Confidential Information received from the requesting Party, except that each Party may keep one copy for archival purposes, provided that the obligation to treat it as Confidential Information in accordance with this Article 8 shall survive such termination.

8.1.8 Remedies. The Parties agree that monetary damages would be inadequate to compensate a Party for the other Party's Breach of its obligations under this Article 8. Each Party accordingly agrees that the disclosing Party shall be entitled to equitable relief, by way of injunction or otherwise, if the receiving Party Breaches or threatens to Breach its obligations under this Article 8, which equitable relief shall be granted without bond or proof of damages, and the breaching Party shall not plead in defense that there would be an adequate remedy at law. Such remedy shall not be deemed an exclusive remedy for the Breach of this Article 8, but it shall be in addition to all other remedies available at law or in equity. The Parties further acknowledge and agree that the covenants contained herein are necessary for the protection of legitimate business interests and are reasonable in scope. Neither Party, however, shall be liable for indirect, incidental, or consequential or punitive damages of any nature or kind resulting from or arising in connection with this Article 8.

8.1.9 Disclosure to FERC, its Staff, or a State Regulatory Body. Notwithstanding anything in this Article 8 to the contrary, and pursuant to 18 CFR 1b.20, if FERC or its staff, during the course of an investigation or otherwise, requests information from a Party that is otherwise required to be maintained in confidence pursuant to this Agreement, the Party shall provide the requested

information to FERC or its staff, within the time provided for in the request for information. In providing the information to FERC or its staff, the Party must, consistent with 18 CFR 388.112, request that the information be treated as confidential and non-public by FERC and its staff and that the information be withheld from public disclosure. Parties are prohibited from notifying the other Party to this Agreement prior to the release of the Confidential Information to FERC or its staff. The Party shall notify the other Party to the Agreement when it is notified by FERC or its staff that a request to release Confidential Information has been received by FERC, at which time either of the Parties may respond before such information would be made public, pursuant to 18 CFR 388.112. Requests from a state regulatory body conducting a confidential investigation shall be treated in a similar manner if consistent with the applicable state rules and regulations.

8.1.10 Subject to the exception in Article 8.1.9, any information that a disclosing Party claims is competitively sensitive, commercial, or financial information under this Agreement shall not be disclosed by the receiving Party to any person not employed or retained by the receiving Party, except to the extent disclosure is (1) required by law; (2) reasonably deemed by the disclosing Party to be required to be disclosed in connection with a dispute between or among the Parties, or the defense of litigation or dispute; (3) otherwise permitted by consent of the disclosing Party, such consent not to be unreasonably withheld; or (4) necessary to fulfill its obligations under this Agreement or as the Transmission Provider or a balancing authority, including disclosing the Confidential Information to a regional or national reliability organization. The Party asserting confidentiality shall notify the receiving Party in writing of the information that Party claims is confidential. Prior to any disclosures of that Party's Confidential Information under this subparagraph, or if any non-Party or Governmental Authority makes any request or demand for any of the information described in this subparagraph, the Party that received the Confidential Information from the disclosing Party agrees to promptly notify the disclosing Party in writing and agrees to assert confidentiality and cooperate with the disclosing Party in seeking to protect the Confidential Information from public disclosure by confidentiality agreement, protective order, or other reasonable measures.

Article 9

Information Access and Audit Rights

9.1 Information Access. Each Party shall make available to the other Party information necessary to verify the costs incurred by the other Party for which the requesting Party is responsible under this Agreement and carry out obligations and responsibilities under this Agreement, provided that the Parties shall not use such information for purposes other than those set forth in this Article 9.1 and to enforce their rights under this Agreement.

9.2 Audit Rights. Subject to the requirements of confidentiality under Article

8 of this Agreement, the accounts and records related to the design, engineering, procurement, and construction of the Affected System Network Upgrade(s) shall be subject to audit during the period of this Agreement and for a period of twenty-four (24) months following Transmission Provider's issuance of a final invoice in accordance with Article 4.4. Affected System Interconnection Customer at its expense shall have the right, during normal business hours, and upon prior reasonable notice to Transmission Provider, to audit such accounts and records. Any audit authorized by this Article 9.2 shall be performed at the offices where such accounts and records are maintained and shall be limited to those portions of such accounts and records that relate to obligations under this Agreement.

Article 10

Notices

10.1 General. Any notice, demand, or request required or permitted to be given by a Party to the other Party, and any instrument required or permitted to be tendered or delivered by a Party in writing to another Party, may be so given, tendered, or delivered, as the case may be, by depositing the same with the United States Postal Service with postage prepaid, for transmission by certified or registered mail, addressed to the Parties, or personally delivered to the Parties, at the address set out below:

To Transmission Provider:
To Affected System Interconnection Customer:

10.2 Billings and Payments. Billings and payments shall be sent to the addresses shown in Article 10.1 unless otherwise agreed to by the Parties.

10.3 Alternative Forms of Notice. Any notice or request required or permitted to be given by a Party to the other Party and not required by this Agreement to be given in writing may be so given by telephone, facsimile or email to the telephone numbers and email addresses set out below:

To Transmission Provider:
To Affected System Interconnection Customer:

10.4 Execution and Filing. Affected System Interconnection Customer shall either: (i) execute two originals of this tendered Agreement and return them to Transmission Provider; or (ii) request in writing that Transmission Provider file with FERC this Agreement in unexecuted form. As soon as practicable, but not later than ten (10) Business Days after receiving either the two executed originals of this tendered Agreement (if it does not conform with a FERC-approved standard form of this Agreement) or the request to file this Agreement unexecuted, Transmission Provider shall file this Agreement with FERC, together with its explanation of any matters as to which Affected System Interconnection Customer and Transmission Provider disagree and support for the costs that Transmission Provider proposes to charge to Affected System Interconnection Customer under this Agreement. An unexecuted version of this Agreement should contain terms and conditions deemed appropriate by Transmission Provider for the Affected System Interconnection Customer's generating facility. If the Parties agree to proceed with design, procurement, and construction of facilities and upgrades under the agreed-upon terms of the unexecuted version of this Agreement, they may proceed pending FERC action.

Article 11

Miscellaneous

11.1 This Agreement shall include standard miscellaneous terms including, but not limited to, indemnities, representations, disclaimers, warranties, governing law, amendment, execution, waiver, enforceability and assignment, which reflect best practices in the electric industry, that are consistent with regional practices, Applicable Laws and Regulations and the organizational nature of each Party. All of these provisions, to the extent practicable,

shall be consistent with the provisions of this LGIP.

[Signature Page to Follow]

In witness whereof, the Parties have executed this Agreement in multiple originals, each of which shall constitute and be an original Agreement among the Parties.

Transmission Provider
{Transmission Provider}

By: _____
Name: _____
Title: _____

Affected System Interconnection Customer
{Affected System Interconnection Customer}

By: _____
Name: _____
Title: _____

Project No. _____

Attachment A to Appendix 11

Two-Party Affected System Facilities Construction Agreement

Affected System Network Upgrade(s), Cost Estimates and Responsibility, Construction Schedule and Monthly Payment Schedule

This Appendix A is a part of the Affected System Facilities Construction Agreement between Affected System Interconnection Customer and Transmission Provider.

1.1 Affected System Network Upgrade(s) to be installed by Transmission Provider.

{description}

1.2 First Equipment Order (including permitting).

{description}

1.2.1. Permitting and Land Rights—Transmission Provider Affected System Network Upgrade(s)

{description}

1.3 Construction Schedule. Where applicable, construction of the Affected System Network Upgrade(s) is scheduled as follows and will be periodically updated as necessary:

TABLE 1—TRANSMISSION PROVIDER CONSTRUCTION ACTIVITIES

Milestone number	Description	Start date	End date

Note: Construction schedule assumes that Transmission Provider has obtained final authorizations and security from Affected System Interconnection Customer and all necessary permits from Governmental Authorities as necessary prerequisites to commence construction of any of the Affected System Network Upgrade(s).

- 1.4 Payment Schedule.
- 1.4.1 Timing of and Adjustments to Affected System Interconnection Customer's Payments and Security.
{description}
- 1.4.2 Monthly Payment Schedule.
Affected System Interconnection Customer's payment schedule is as follows.
{description}

TABLE 2—AFFECTED SYSTEM INTER-CONNECTION CUSTOMER'S PAYMENT/ SECURITY OBLIGATIONS FOR AFFECTED SYSTEM NETWORK UPGRADE(S).

Milestone number	Description	Date
	.	
	.	
	.	
	.	
	.	

Note: Affected System Interconnection Customer's payment or provision of security as provided in this Agreement operates as a condition precedent to Transmission Provider's obligations to construct any Affected System Network Upgrade(s), and failure to meet this schedule will constitute a Breach pursuant to Article 5.1 of this Agreement.

- 1.5 Permits, Licenses, and Authorizations.
{description}

Attachment B to Appendix 11
Two-Party Affected System Facilities Construction Agreement
Notification of Completed Construction

This Appendix B is a part of the Affected System Facilities Construction Agreement between Affected System Interconnection Customer and Transmission Provider. Where applicable, when Transmission Provider has completed construction of the Affected System Network Upgrade(s), Transmission Provider shall send notice to Affected System Interconnection Customer in substantially the form following:

{Date}
{Affected System Interconnection Customer Address}
Re: Completion of Affected System Network Upgrade(s)
Dear {Name or Title}:

This letter is sent pursuant to the Affected System Facilities Construction Agreement between {Transmission Provider} and {Affected System Interconnection Customer}, dated _____, 20____.

On {Date}, Transmission Provider completed to its satisfaction all work on the Affected System Network Upgrade(s) required to facilitate the safe and reliable interconnection and operation of Affected System Interconnection Customer's {description of generating facility}. Transmission Provider confirms that the Affected System Network Upgrade(s) are in place.

Thank you.

{Signature}
{Transmission Provider Representative}

Attachment C to Appendix 11
Two-Party Affected System Facilities Construction Agreement

- Exhibits**
- This Appendix C is a part of the Affected System Facilities Construction Agreement among Affected System Interconnection Customer and Transmission Provider.*
- Exhibit A1**
Transmission Provider Site Map
 - Exhibit A2**
Site Plan
 - Exhibit A3**
Affected System Network Upgrade(s) Plan & Profile
 - Exhibit A4**
Estimated Cost of Affected System Network Upgrade(s)

	Location	Facilities to be constructed by transmission provider	Estimate in dollars
		Total:	

Appendix 12 to LGIP
Multiparty Affected System Facilities Construction Agreement

This agreement is made and entered into this _____ day of _____, 20____ by and among _____, organized and existing under the laws of the State of _____ (Affected System Interconnection Customer); _____, a _____ organized and existing under the laws of the State of _____ (Affected System Interconnection Customer); and _____, an entity organized under the laws of the State of _____ (Transmission Provider). Affected System Interconnection Customers and Transmission Provider each may be referred to as a "Party" or collectively as the "Parties." When it is not important to differentiate among them, Affected System Interconnection Customers each may be referred to as "Affected System Interconnection Customer" or collectively as "Affected System Interconnection Customers."

Recitals

Whereas, Affected System Interconnection Customers are proposing to develop {description of generating facilities or generating capacity additions to an existing

generating facility}, consistent with the interconnection requests submitted by Affected System Interconnection Customers to {name of host transmission provider}, dated _____, for which {name of host transmission provider} found impacts on Transmission Provider's Transmission System; and

Whereas, Affected System Interconnection Customers desire to interconnect the {generating facilities} to {name of host transmission provider}'s transmission system; and

Whereas, additions, modifications, and upgrade(s) must be made to certain existing facilities of Transmission Provider's Transmission System to accommodate such interconnection; and

Whereas, Affected System Interconnection Customers have requested, and Transmission Provider has agreed, to enter into this Agreement for the purpose of facilitating the construction of necessary Affected System Network Upgrade(s);

Now, therefore, in consideration of and subject to the mutual covenants contained herein, the Parties agree as follows:

Article 1
Definitions

When used in this Agreement, with initial capitalization, the terms specified and not otherwise defined in this Agreement shall have the meanings indicated in this LGIP.

Article 2
Term of Agreement

2.1 Effective Date. This Agreement shall become effective upon execution by the Parties subject to acceptance by FERC (if applicable), or if filed unexecuted, upon the date specified by FERC.

2.2 Term.

2.2.1 General. This Agreement shall become effective as provided in Article 2.1 and shall continue in full force and effect until the earlier of (1) the final repayment, where applicable, by Transmission Provider of the amount funded by Affected System Interconnection Customers for Transmission Provider's design, procurement, construction, and installation of the Affected System Network Upgrade(s) provided in Appendix A; (2) the Parties agree to mutually terminate this Agreement; (3) earlier termination is permitted or provided for under Appendix A of this Agreement; or (4) Affected System Interconnection Customers terminate this Agreement after providing Transmission Provider with written notice at least sixty (60) Calendar Days prior to the proposed termination date, provided that Affected System Interconnection Customers have no outstanding contractual obligations to Transmission Provider under this Agreement. No termination of this Agreement shall be effective until the Parties have complied with all Applicable Laws and Regulations applicable to such termination. The term of this Agreement may be adjusted upon mutual agreement of the Parties if the commercial operation date(s) for the {generating facilities} is adjusted in accordance with the rules and procedures established by {name of host transmission provider} or the in-service

date for the Affected System Network Upgrade(s) is adjusted in accordance with the rules and procedures established by Transmission Provider.

2.2.2 Termination Upon Default. Default shall mean the failure of a Breaching Party to cure its Breach in accordance with Article 5 of this Agreement where Breach and Breaching Party are defined in Article 5. Defaulting Party shall mean the Party that is in Default. In the event of a Default by a Party, each non-Defaulting Party shall have the termination rights described in Articles 5 and 6; provided, however, Transmission Provider may not terminate this Agreement if an Affected System Interconnection Customer is the Defaulting Party and compensates Transmission Provider within thirty (30) Calendar Days for the amount of damages billed to Affected System Interconnection Customer(s) by Transmission Provider for any such damages, including costs and expenses incurred by Transmission Provider as a result of such Default. Notwithstanding the foregoing, Default by one or more Affected System Interconnection Customers shall not provide the other Affected System Interconnection Customer(s), either individually or in concert, with the right to terminate the entire Agreement. The non-Defaulting Party/Parties may, individually or in concert, initiate the removal of an Affected System Interconnection Customer that is a Defaulting Party from this Agreement. Transmission Provider shall not terminate this Agreement or the participation of any Affected System Interconnection Customer without provision being made for Transmission Provider to be fully reimbursed for all of its costs incurred under this Agreement.

2.2.3 Consequences of Termination. In the event of a termination by a Party, other than a termination by Affected System Interconnection Customer(s) due to a Default by Transmission Provider, each Affected System Interconnection Customer whose participation in this Agreement is terminated shall be responsible for the payment to Transmission Provider of all amounts then due and payable for construction and installation of the Affected System Network Upgrade(s) (including, without limitation, any equipment ordered related to such construction), plus all out-of-pocket expenses incurred by Transmission Provider in connection with the construction and installation of the Affected System Network Upgrade(s), through the date of termination, and, in the event of the termination of the entire Agreement, any actual costs which Transmission Provider reasonably incurs in (1) winding up work and construction demobilization and (2) ensuring the safety of persons and property and the integrity and safe and reliable operation of Transmission Provider's Transmission System. Transmission Provider shall use Reasonable Efforts to minimize such costs. The cost responsibility of other Affected System Interconnection Customers shall be adjusted, as necessary, based on the payments by an Affected System Interconnection Customer that is terminated from the Agreement.

2.2.4 Reservation of Rights. Transmission Provider shall have the right to make a

unilateral filing with FERC to modify this Agreement with respect to any rates, terms and conditions, charges, classifications of service, rule or regulation under section 205 or any other applicable provision of the Federal Power Act and FERC's rules and regulations thereunder, and Affected System Interconnection Customers shall have the right to make a unilateral filing with FERC to modify this Agreement pursuant to section 206 or any other applicable provision of the Federal Power Act and FERC's rules and regulations thereunder; provided that each Party shall have the right to protest any such filing by the other Party and to participate fully in any proceeding before FERC in which such modifications may be considered. Nothing in this Agreement shall limit the rights of the Parties or of FERC under sections 205 or 206 of the Federal Power Act and FERC's rules and regulations thereunder, except to the extent that the Parties otherwise mutually agree as provided herein.

2.3 Filing. Transmission Provider shall file this Agreement (and any amendment hereto) with the appropriate Governmental Authority, if required. Affected System Interconnection Customers may request that any information so provided be subject to the confidentiality provisions of Article 8. Each Affected System Interconnection Customer that has executed this Agreement, or any amendment thereto, shall reasonably cooperate with Transmission Provider with respect to such filing and to provide any information reasonably requested by Transmission Provider needed to comply with applicable regulatory requirements.

2.4 Survival. This Agreement shall continue in effect after termination, to the extent necessary, to provide for final billings and payments and for costs incurred hereunder, including billings and payments pursuant to this Agreement; to permit the determination and enforcement of liability and indemnification obligations arising from acts or events that occurred while this Agreement was in effect; and to permit each Party to have access to the lands of the other Party pursuant to this Agreement or other applicable agreements, to disconnect, remove, or salvage its own facilities and equipment.

2.5 Termination Obligations. Upon any termination pursuant to this Agreement or termination of the participation in this Agreement of an Affected System Interconnection Customer, each Affected System Interconnection Customer shall be responsible for the payment of its proportionate share of all costs or other contractual obligations incurred prior to the termination date, including previously incurred capital costs, penalties for early termination, and costs of removal and site restoration. The cost responsibility of the other Affected System Interconnection Customers shall be adjusted as necessary.

Article 3

Construction of Affected System Network Upgrade(s)

3.1 Construction.

3.1.1 Transmission Provider Obligations. Transmission Provider shall (or shall cause such action to) design, procure, construct,

and install, and Affected System Interconnection Customers shall pay, consistent with Article 3.2, the costs of all Affected System Network Upgrade(s) identified in Appendix A. All Affected System Network Upgrade(s) designed, procured, constructed, and installed by Transmission Provider pursuant to this Agreement shall satisfy all requirements of applicable safety and/or engineering codes and comply with Good Utility Practice, and further, shall satisfy all Applicable Laws and Regulations. Transmission Provider shall not be required to undertake any action which is inconsistent with its standard safety practices, its material and equipment specifications, its design criteria and construction procedures, its labor agreements, or any Applicable Laws and Regulations.

3.1.2 Suspension of Work.

3.1.2.1 Right to Suspend. Affected System Interconnection Customers must jointly provide to Transmission Provider written notice of their request for suspension. Only the milestones described in the Appendices of this Agreement are subject to suspension under this Article 3.1.2. Affected System Network Upgrade(s) will be constructed on the schedule described in the Appendices of this Agreement unless: (1) construction is prevented by the order of a Governmental Authority; (2) the Affected System Network Upgrade(s) are not needed by any other Interconnection Customer; or (3) Transmission Provider determines that a Force Majeure event prevents construction. In the event of (1), (2), or (3), any security paid to Transmission Provider under Article 4.1 of this Agreement shall be released by Transmission Provider upon the determination by Transmission Provider that the Affected System Network Upgrade(s) will no longer be constructed. If suspension occurs, Affected System Interconnection Customers shall be responsible for the costs which Transmission Provider incurs (i) in accordance with this Agreement prior to the suspension; (ii) in suspending such work, including any costs incurred to perform such work as may be necessary to ensure the safety of persons and property and the integrity of Transmission Provider's Transmission System and, if applicable, any costs incurred in connection with the cancellation of contracts and orders for material which Transmission Provider cannot reasonably avoid; and (iii) reasonably incurs in winding up work and construction demobilization; provided, however, that, prior to canceling any such contracts or orders, Transmission Provider shall obtain Affected System Interconnection Customers' authorization. Affected System Interconnection Customers shall be responsible for all costs incurred in connection with Affected System Interconnection Customers' failure to authorize cancellation of such contracts or orders.

Interest on amounts paid by Affected System Interconnection Customers to Transmission Provider for the design, procurement, construction, and installation of the Affected System Network Upgrade(s) shall not accrue during periods in which

Affected System Interconnection Customers have suspended construction under this Article 3.1.2.

Transmission Provider shall invoice Affected System Interconnection Customers pursuant to Article 4 and will use Reasonable Efforts to minimize its costs. In the event Affected System Interconnection Customers suspend work by Affected System Transmission Provider required under this Agreement pursuant to this Article 3.1.2.1, and have not requested Affected System Transmission Provider to recommence the work required under this Agreement on or before the expiration of three (3) years following commencement of such suspension, this Agreement shall be deemed terminated. The three-year period shall begin on the date the suspension is requested, or the date of the written notice to Affected System Transmission Provider, whichever is earlier, if no effective date of suspension is specified.

3.1.2.2 Recommencing of Work. If Affected System Interconnection Customers request that Transmission Provider recommence construction of Affected System Network Upgrade(s), Transmission Provider shall have no obligation to afford such work the priority it would have had but for the prior actions of Affected System Interconnection Customers to suspend the work. In such event, Affected System Interconnection Customers shall be responsible for any costs incurred in recommencing the work. All recommended work shall be completed pursuant to an amended schedule for the interconnection agreed to by the Parties. Transmission Provider has the right to conduct a restudy of the Affected System Study if conditions have materially changed subsequent to the request to suspend. Affected System Interconnection Customers shall be responsible for the costs of any studies or restudies required.

3.1.2.3 Right to Suspend Due to Default. Transmission Provider reserves the right, upon written notice to Affected System Interconnection Customers, to suspend, at any time, work by Transmission Provider due to a Default by Affected System Interconnection Customer(s). Defaulting-Affected System Interconnection Customer(s) shall be responsible for any additional expenses incurred by Transmission Provider associated with the construction and installation of the Affected System Network Upgrade(s) (as set forth in Article 2.2.3) upon the occurrence of a Default pursuant to Article 5. Any form of suspension by Transmission Provider shall not be barred by Articles 2.2.2, 2.2.3, or 5.2.2, nor shall it affect Transmission Provider's right to terminate the work or this Agreement pursuant to Article 6.

3.1.3 Construction Status. Transmission Provider shall keep Affected System Interconnection Customers advised periodically as to the progress of its design, procurement, and construction efforts, as described in Appendix A. An Affected System Interconnection Customer may, at any time and reasonably, request a progress report from Transmission Provider. If, at any time, an Affected System Interconnection

Customer determines that the completion of the Affected System Network Upgrade(s) will not be required until after the specified in-service date, such Affected System Interconnection Customer will provide written notice to all other Parties of such later date for which the completion of the Affected System Network Upgrade(s) would be required. Transmission Provider may delay the in-service date of the Affected System Network Upgrade(s) accordingly, but only if agreed to by all other Affected System Interconnection Customers.

3.1.4 Timely Completion. Transmission Provider shall use Reasonable Efforts to design, procure, construct, install, and test the Affected System Network Upgrade(s) in accordance with the schedule set forth in Appendix A, which schedule may be revised from time to time by mutual agreement of the Parties. If any event occurs that will affect the time or ability to complete the Affected System Network Upgrade(s), Transmission Provider shall promptly notify all other Parties. In such circumstances, Transmission Provider shall, within fifteen (15) Calendar Days of such notice, convene a meeting with Affected System Interconnection Customers to evaluate the alternatives available to Affected System Interconnection Customers. Transmission Provider shall also make available to Affected System Interconnection Customers all studies and work papers related to the event and corresponding delay, including all information that is in the possession of Transmission Provider that is reasonably needed by Affected System Interconnection Customers to evaluate alternatives, subject to confidentiality arrangements consistent with Article 8. Transmission Provider shall, at any Affected System Interconnection Customer's request and expense, use Reasonable Efforts to accelerate its work under this Agreement to meet the schedule set forth in Appendix A, provided that (1) Affected System Interconnection Customers jointly authorize such actions, such authorizations to be withheld, conditioned, or delayed by a given Affected System Interconnection Customer only if it can demonstrate that the acceleration would have a material adverse effect on it; and (2) the requesting Affected System Interconnection Customer(s) funds the costs associated therewith in advance, or all Affected System Interconnection Customers agree in advance to fund such costs based on such other allocation method as they may adopt.

3.2 Interconnection Costs.

3.2.1 Costs. Affected System Interconnection Customers shall pay to Transmission Provider costs (including taxes and financing costs) associated with seeking and obtaining all necessary approvals and of designing, engineering, constructing, and testing the Affected System Network Upgrade(s), as identified in Appendix A, in accordance with the cost recovery method provided herein. Except as expressly otherwise agreed, Affected System Interconnection Customers shall be collectively responsible for these costs, based on their proportionate share of cost responsibility, as provided in Appendix A. Unless Transmission Provider elects to fund

the Affected System Network Upgrade(s), they shall be initially funded by the applicable Affected System Interconnection Customer.

3.2.1.1 Lands of Other Property Owners. If any part of the Affected System Network Upgrade(s) is to be installed on property owned by persons other than Affected System Interconnection Customers or Transmission Provider, Transmission Provider shall, at Affected System Interconnection Customers' expense, use efforts similar in nature and extent to those that it typically undertakes on its own behalf or on behalf of its Affiliates, including use of its eminent domain authority to the extent permitted and consistent with Applicable Laws and Regulations and, to the extent consistent with such Applicable Laws and Regulations, to procure from such persons any rights of use, licenses, rights-of-way, and easements that are necessary to construct, operate, maintain, test, inspect, replace, or remove the Affected System Network Upgrade(s) upon such property.

3.2.2 Repayment.

3.2.2.1 Repayment. Consistent with articles 11.4.1 and 11.4.2 of the Transmission Provider's pro forma LGIA, each Affected System Interconnection Customer shall be entitled to a cash repayment by Transmission Provider of the amount each Affected System Interconnection Customer paid to Transmission Provider, if any, for the Affected System Network Upgrade(s), including any tax gross-up or other tax-related payments associated with the Affected System Network Upgrade(s), and not refunded to Affected System Interconnection Customer pursuant to Article 3.3.1 or otherwise. The Parties may mutually agree to a repayment schedule, to be outlined in Appendix A, not to exceed twenty (20) years from the commercial operation date, for the complete repayment for all applicable costs associated with the Affected System Network Upgrade(s). Any repayment shall include interest calculated in accordance with the methodology set forth in FERC's regulations at 18 CFR 35.19 a(a)(2)(iii) from the date of any payment for Affected System Network Upgrade(s) through the date on which Affected System Interconnection Customers receive a repayment of such payment pursuant to this subparagraph. Interest shall not accrue during periods in which Affected System Interconnection Customers have suspended construction pursuant to Article 3.1.2.1. Affected System Interconnection Customers may assign such repayment rights to any person.

3.2.2.2 Impact of Failure to Achieve Commercial Operation. If an Affected System Interconnection Customer's generating facility fails to achieve commercial operation, but it or another generating facility is later constructed and makes use of the Affected System Network Upgrade(s), Transmission Provider shall at that time reimburse such Affected System Interconnection Customers for the portion of the Affected System Network Upgrade(s) it funded. Before any such reimbursement can occur, Affected System Interconnection Customer (or the entity that ultimately constructs the generating facility, if different),

is responsible for identifying the entity to which the reimbursement must be made.

3.3 Taxes.

3.3.1 *Indemnification for Contributions in Aid of Construction.* With regard only to payments made by Affected System Interconnection Customers to Transmission Provider for the installation of the Affected System Network Upgrade(s), Transmission Provider shall not include a gross-up for income taxes in the amounts it charges Affected System Interconnection Customers for the installation of the Affected System Network Upgrade(s) unless (1) Transmission Provider has determined, in good faith, that the payments or property transfers made by Affected System Interconnection Customers to Transmission Provider should be reported as income subject to taxation, or (2) any Governmental Authority directs Transmission Provider to report payments or property as income subject to taxation. Affected System Interconnection Customers shall reimburse Transmission Provider for such costs on a fully grossed-up basis, in accordance with this Article, within thirty (30) Calendar Days of receiving written notification from Transmission Provider of the amount due, including detail about how the amount was calculated.

The indemnification obligation shall terminate at the earlier of (1) the expiration of the ten (10)-year testing period and the applicable statute of limitation, as it may be extended by Transmission Provider upon request of the Internal Revenue Service, to keep these years open for audit or adjustment, or (2) the occurrence of a subsequent taxable event and the payment of any related indemnification obligations as contemplated by this Article.

Notwithstanding the foregoing provisions of this Article 3.3.1, and to the extent permitted by law, to the extent that the receipt of such payments by Transmission Provider is determined by any Governmental Authority to constitute income by Transmission Provider subject to taxation, Affected System Interconnection Customers shall protect, indemnify, and hold harmless Transmission Provider and its Affiliates, from all claims by any such Governmental Authority for any tax, interest, and/or penalties associated with such determination. Upon receiving written notification of such determination from the Governmental Authority, Transmission Provider shall provide Affected System Interconnection Customers with written notification within thirty (30) Calendar Days of such determination and notification. Transmission Provider, upon the timely written request by any one or more Affected System Interconnection Customer(s) and at the expense of such Affected System Interconnection Customer(s), shall appeal, protest, seek abatement of, or otherwise oppose such determination. Transmission Provider reserves the right to make all decisions with regard to the prosecution of such appeal, protest, abatement or other contest, including the compromise or settlement of the claim; provided that Transmission Provider shall cooperate and consult in good faith with the requesting Affected System Interconnection Customer(s) regarding the conduct of such contest.

Affected System Interconnection Customer(s) shall not be required to pay Transmission Provider for the tax, interest, and/or penalties prior to the seventh (7th) Calendar Day before the date on which Transmission Provider (1) is required to pay the tax, interest, and/or penalties or other amount in lieu thereof pursuant to a compromise or settlement of the appeal, protest, abatement, or other contest; (2) is required to pay the tax, interest, and/or penalties as the result of a final, non-appealable order by a Governmental Authority; or (3) is required to pay the tax, interest, and/or penalties as a prerequisite to an appeal, protest, abatement, or other contest. In the event such appeal, protest, abatement, or other contest results in a determination that Transmission Provider is not liable for any portion of any tax, interest, and/or penalties for which any Affected System Interconnection Customer(s) has already made payment to Transmission Provider, Transmission Provider shall promptly refund to such Affected System Interconnection Customer(s) any payment attributable to the amount determined to be non-taxable, plus any interest (calculated in accordance with 18 CFR 35.19(a)(2)(iii)) or other payments Transmission Provider receives or to which Transmission Provider may be entitled with respect to such payment. Each Affected System Interconnection Customer shall provide Transmission Provider with credit assurances sufficient to meet each Affected System Interconnection Customer's estimated liability for reimbursement of Transmission Provider for taxes, interest, and/or penalties under this Article 3.3.1. Such estimated liability shall be stated in Appendix A.

To the extent that Transmission Provider is a limited liability company and not a corporation, and has elected to be taxed as a partnership, then the following shall apply: Transmission Provider represents, and the Parties acknowledge, that Transmission Provider is a limited liability company and is treated as a partnership for federal income tax purposes. Any payment made by Affected System Interconnection Customers to Transmission Provider for Affected System Network Upgrade(s) is to be treated as an upfront payment. It is anticipated by the Parties that any amounts paid by each Affected System Interconnection Customer to Transmission Provider for Affected System Network Upgrade(s) will be reimbursed to such Affected System Interconnection Customer in accordance with the terms of this Agreement, provided such Affected System Interconnection Customer fulfills its obligations under this Agreement.

3.3.2 *Private Letter Ruling.* At the request and expense of any Affected System Interconnection Customer(s), Transmission Provider shall file with the Internal Revenue Service a request for a private letter ruling as to whether any property transferred or sums paid, or to be paid, by such Affected System Interconnection Customer(s) to Transmission Provider under this Agreement are subject to federal income taxation. Each Affected System Interconnection Customer desiring such a request will prepare the initial draft of the request for a private letter ruling and will certify under penalties of perjury that all

facts represented in such request are true and accurate to the best of such Affected System Interconnection Customer's knowledge. Transmission Provider and such Affected System Interconnection Customer(s) shall cooperate in good faith with respect to the submission of such request.

3.3.3 *Other Taxes.* Upon the timely request by any one or more Affected System Interconnection Customer(s), and at such Affected System Interconnection Customer(s)' sole expense, Transmission Provider shall appeal, protest, seek abatement of, or otherwise contest any tax (other than federal or state income tax) asserted or assessed against Transmission Provider for which such Affected System Interconnection Customer(s) may be required to reimburse Transmission Provider under the terms of this Agreement. Affected System Interconnection Customer(s) who requested the action shall pay to Transmission Provider on a periodic basis, as invoiced by Transmission Provider, Transmission Provider's documented reasonable costs of prosecuting such appeal, protest, abatement, or other contest. The requesting Affected System Interconnection Customer(s) and Transmission Provider shall cooperate in good faith with respect to any such contest. Unless the payment of such taxes is a prerequisite to an appeal or abatement or cannot be deferred, no amount shall be payable by Affected System Interconnection Customer(s) to Transmission Provider for such taxes until they are assessed by a final, non-appealable order by any court or agency of competent jurisdiction. In the event that a tax payment is withheld and ultimately due and payable after appeal, Affected System Interconnection Customer(s) will be responsible for all taxes, interest, and penalties, other than penalties attributable to any delay caused by Transmission Provider. Each Party shall cooperate with the other Party to maintain each Party's tax status. Nothing in this Agreement is intended to adversely affect any Party's tax-exempt status with respect to the issuance of bonds including, but not limited to, local furnishing bonds, as described in section 142(f) of the Internal Revenue Code.

Article 4

Security, Billing, and Payments

4.1 *Provision of Security.* By the earlier of (1) thirty (30) Calendar Days prior to the due date for each Affected System Interconnection Customer's first payment under the payment schedule specified in Appendix A, or (2) the first date specified in Appendix A for the ordering of equipment by Transmission Provider for installing the Affected System Network Upgrade(s), each Affected System Interconnection Customer shall provide Transmission Provider, at each Affected System Interconnection Customer's option, a guarantee, a surety bond, letter of credit, or other form of security that is reasonably acceptable to Transmission Provider. Such security for payment shall be in an amount sufficient to cover the costs for constructing, procuring, and installing the applicable portion of Affected System Network Upgrade(s) and shall be reduced on a dollar-for-dollar basis for payments made to Transmission Provider for these purposes.

The guarantee must be made by an entity that meets the creditworthiness requirements of Transmission Provider and contain terms and conditions that guarantee payment of any amount that may be due from such Affected System Interconnection Customer, up to an agreed-to maximum amount. The letter of credit must be issued by a financial institution reasonably acceptable to Transmission Provider and must specify a reasonable expiration date. The surety bond must be issued by an insurer reasonably acceptable to Transmission Provider and must specify a reasonable expiration date.

4.2 *Invoice.* Each Party shall submit to the other Parties, on a monthly basis, invoices of amounts due, if any, for the preceding month. Each invoice shall state the month to which the invoice applies and fully describe the services and equipment provided. The Parties may discharge mutual debts and payment obligations due and owing to each other on the same date through netting, in which case all amounts a Party owes to another Party under this Agreement, including interest payments, shall be netted so that only the net amount remaining due shall be paid by the owing Party.

4.3 *Payment.* Invoices shall be rendered to the paying Party at the address specified by the Parties. The Party receiving the invoice shall pay the invoice within thirty (30) Calendar Days of receipt. All payments shall be made in immediately available funds payable to the other Party, or by wire transfer to a bank named and account designated by the invoicing Party. Payment of invoices by a Party will not constitute a waiver of any rights or claims that Party may have under this Agreement.

4.4 *Final Invoice.* Within six (6) months after completion of the construction of the Affected System Network Upgrade(s) Transmission Provider shall provide an invoice of the final cost of the construction of the Affected System Network Upgrade(s) and shall set forth such costs in sufficient detail to enable each Affected System Interconnection Customer to compare the actual costs with the estimates and to ascertain deviations, if any, from the cost estimates. Transmission Provider shall refund, with interest (calculated in accordance with 18 CFR 35.19a(a)(2)(iii)), to each Affected System Interconnection Customer any amount by which the actual payment by Affected System Interconnection Customer for estimated costs exceeds the actual costs of construction within thirty (30) Calendar Days of the issuance of such final construction invoice.

4.5 *Interest.* Interest on any unpaid amounts shall be calculated in accordance with 18 CFR 35.19a(a)(2)(iii).

4.6 *Payment During Dispute.* In the event of a billing dispute among the Parties, Transmission Provider shall continue to construct the Affected System Network Upgrade(s) under this Agreement as long as each Affected System Interconnection Customer: (1) continues to make all payments not in dispute; and (2) pays to Transmission Provider or into an independent escrow account the portion of the invoice in dispute, pending resolution of such dispute. If any Affected System

Interconnection Customer fails to meet these two requirements, then Transmission Provider may provide notice to such Affected System Interconnection Customer of a Default pursuant to Article 5. Within thirty (30) Calendar Days after the resolution of the dispute, the Party that owes money to another Party shall pay the amount due with interest calculated in accordance with the methodology set forth in 18 CFR 35.19a(a)(2)(iii).

Article 5

Breach, Cure, and Default

5.1 *Events of Breach.* A Breach of this Agreement shall include the:

(a) Failure to pay any amount when due;

(b) Failure to comply with any material term or condition of this Agreement, including but not limited to any material Breach of a representation, warranty, or covenant made in this Agreement;

(c) Failure of a Party to provide such access rights, or a Party's attempt to revoke access or terminate such access rights, as provided under this Agreement; or

(d) Failure of a Party to provide information or data to another Party as required under this Agreement, provided the Party entitled to the information or data under this Agreement requires such information or data to satisfy its obligations under this Agreement.

5.2 *Definition.* Breaching Party shall mean the Party that is in Breach.

5.3 *Notice of Breach, Cure, and Default.* Upon the occurrence of an event of Breach, any Party aggrieved by the Breach, when it becomes aware of the Breach, shall give written notice of the Breach to the Breaching Party and to any other person representing a Party to this Agreement identified in writing to the other Party in advance. Such notice shall set forth, in reasonable detail, the nature of the Breach, and where known and applicable, the steps necessary to cure such Breach.

5.2.1 Upon receiving written notice of the Breach hereunder, the Breaching Party shall have a period to cure such Breach (hereinafter referred to as the "Cure Period") which shall be sixty (60) Calendar Days. If an Affected System Interconnection Customer is the Breaching Party and the Breach results from a failure to provide payments or security under Article 4.1 of this Agreement, the other Affected System Interconnection Customers, either individually or in concert, may cure the Breach by paying the amounts owed or by providing adequate security, without waiver of contribution rights against the breaching Affected System Interconnection Customer. Such cure for the Breach of an Affected System Interconnection Customer is subject to the reasonable consent of Transmission Provider. Transmission Provider may also cure such Breach by funding the proportionate share of the Affected System Network Upgrade costs related to the Breach of Affected System Interconnection Customer. Transmission Provider must notify all Parties that it will exercise this option within thirty (30) Calendar Days of notification that an Affected System Interconnection Customer has failed to provide payments or security under Article 4.1.

5.2.2 In the event the Breach is not cured within the Cure Period, the Breaching Party will be in Default of this Agreement, and the non-Defaulting Parties may (1) act in concert to amend the Agreement to remove an Affected System Interconnection Customer that is in Default from this Agreement for cause and to make other changes as necessary, or (2) either in concert or individually take whatever action at law or in equity as may appear necessary or desirable to enforce the performance or observance of any rights, remedies, obligations, agreement, or covenants under this Agreement.

5.3 *Rights in the Event of Default.*

Notwithstanding the foregoing, upon the occurrence of Default, the non-Defaulting Parties shall be entitled to exercise all rights and remedies it may have in equity or at law.

Article 6

Termination of Agreement

6.1 *Expiration of Term.* Except as otherwise specified in this Article 6, the Parties' obligations under this Agreement shall terminate at the conclusion of the term of this Agreement.

6.2 *Termination and Removal.* Subject to the limitations set forth in Article 6.3, in the event of a Default, termination of this Agreement, as to a given Affected System Interconnection Customer or in its entirety, shall require a filing at FERC of a notice of termination, which filing must be accepted for filing by FERC.

6.3 *Disposition of Facilities Upon Termination of Agreement.*

6.3.1 *Transmission Provider Obligations.* Upon termination of this Agreement, unless otherwise agreed to by the Parties in writing, Transmission Provider:

(a) shall, prior to the construction and installation of any portion of the Affected System Network Upgrade(s) and to the extent possible, cancel any pending orders of, or return, such equipment or material for such Affected System Network Upgrade(s);

(b) may keep in place any portion of the Affected System Network Upgrade(s) already constructed and installed; and,

(c) shall perform such work as may be necessary to ensure the safety of persons and property and to preserve the integrity of Transmission Provider's Transmission System (e.g., construction demobilization to return the system to its original state, wind-up work).

6.3.2 *Affected System Interconnection Customer Obligations.* Upon billing by Transmission Provider, each Affected System Interconnection Customer shall reimburse Transmission Provider for its share of any costs incurred by Transmission Provider in performance of the actions required or permitted by Article 6.3.1 and for its share of the cost of any Affected System Network Upgrade(s) described in Appendix A. Transmission Provider shall use Reasonable Efforts to minimize costs and shall offset the amounts owed by any salvage value of facilities, if applicable. Each Affected System Interconnection Customer shall pay these costs pursuant to Article 4.3 of this Agreement.

6.3.3 *Pre-construction or Installation.* Upon termination of this Agreement and

prior to the construction and installation of any portion of the Affected System Network Upgrade(s), Transmission Provider may, at its option, retain any portion of such Affected System Network Upgrade(s) not cancelled or returned in accordance with Article 6.3.1(a), in which case Transmission Provider shall be responsible for all costs associated with procuring such Affected System Network Upgrade(s). To the extent that an Affected System Interconnection Customer has already paid Transmission Provider for any or all of such costs, Transmission Provider shall refund Affected System Interconnection Customer for those payments. If Transmission Provider elects to not retain any portion of such facilities, and one or more of Affected System Interconnection Customers wish to purchase such facilities, Transmission Provider shall convey and make available to the applicable Affected System Interconnection Customer(s) such facilities as soon as practicable after Affected System Interconnection Customer(s)' payment for such facilities.

6.4 Survival of Rights. Termination or expiration of this Agreement shall not relieve any Party of any of its liabilities and obligations arising hereunder prior to the date termination becomes effective, and each Party may take whatever judicial or administrative actions as appear necessary or desirable to enforce its rights hereunder. The applicable provisions of this Agreement will continue in effect after expiration, or early termination hereof, to the extent necessary to provide for (1) final billings, billing adjustments, and other billing procedures set forth in this Agreement; (2) the determination and enforcement of liability and indemnification obligations arising from acts or events that occurred while this Agreement was in effect; and (3) the confidentiality provisions set forth in Article 8.

Article 7

Subcontractors

7.1 Subcontractors. Nothing in this Agreement shall prevent a Party from utilizing the services of subcontractors, as it deems appropriate, to perform its obligations under this Agreement; provided, however, that each Party shall require its subcontractors to comply with all applicable terms and conditions of this Agreement in providing such services, and each Party shall remain primarily liable to the other Parties for the performance of such subcontractor.

7.1.1 Responsibility of Principal. The creation of any subcontract relationship shall not relieve the hiring Party of any of its obligations under this Agreement. In accordance with the provisions of this Agreement, each Party shall be fully responsible to the other Parties for the acts or omissions of any subcontractor it hires as if no subcontract had been made. Any applicable obligation imposed by this Agreement upon a Party shall be equally binding upon, and shall be construed as having application to, any subcontractor of such Party.

7.1.2 No Third-Party Beneficiary. Except as may be specifically set forth to the contrary herein, no subcontractor or any

other party is intended to be, nor will it be deemed to be, a third-party beneficiary of this Agreement.

7.1.3 No Limitation by Insurance. The obligations under this Article 7 will not be limited in any way by any limitation of any insurance policies or coverages, including any subcontractor's insurance.

Article 8

Confidentiality

8.1 Confidentiality. Confidential Information shall include, without limitation, all information relating to a Party's technology, research and development, business affairs, and pricing, and any information supplied to the other Parties prior to the execution of this Agreement.

Information is Confidential Information only if it is clearly designated or marked in writing as confidential on the face of the document, or, if the information is conveyed orally or by inspection, if the Party providing the information orally informs the Party receiving the information that the information is confidential. The Parties shall maintain as confidential any information that is provided and identified by a Party as Critical Energy Infrastructure Information (CEII), as that term is defined in 18 CFR 388.113(c).

Such confidentiality will be maintained in accordance with this Article 8. If requested by the receiving Party, the disclosing Party shall provide in writing, the basis for asserting that the information referred to in this Article warrants confidential treatment, and the requesting Party may disclose such writing to the appropriate Governmental Authority. Each Party shall be responsible for the costs associated with affording confidential treatment to its information.

8.1.1 Term. During the term of this Agreement, and for a period of three (3) years after the expiration or termination of this Agreement, except as otherwise provided in this Article 8 or with regard to CEII, each Party shall hold in confidence and shall not disclose to any person Confidential Information. CEII shall be treated in accordance with FERC policies and regulations.

8.1.2 Scope. Confidential Information shall not include information that the receiving Party can demonstrate: (1) is generally available to the public other than as a result of a disclosure by the receiving Party; (2) was in the lawful possession of the receiving Party on a non-confidential basis before receiving it from the disclosing Party; (3) was supplied to the receiving Party without restriction by a non-Party, who, to the knowledge of the receiving Party after due inquiry, was under no obligation to the disclosing Party to keep such information confidential; (4) was independently developed by the receiving Party without reference to Confidential Information of the disclosing Party; (5) is, or becomes, publicly known, through no wrongful act or omission of the receiving Party or Breach of this Agreement; or (6) is required, in accordance with Article 8.1.6 of this Agreement, to be disclosed by any Governmental Authority or is otherwise required to be disclosed by law or subpoena, or is necessary in any legal

proceeding establishing rights and obligations under this Agreement. Information designated as Confidential Information will no longer be deemed confidential if the Party that designated the information as confidential notifies the receiving Party that it no longer is confidential.

8.1.3 Release of Confidential Information. No Party shall release or disclose Confidential Information to any other person, except to its Affiliates (limited by the Standards of Conduct requirements), subcontractors, employees, agents, consultants, or to non-Parties that may be or are considering providing financing to or equity participation with Affected System Interconnection Customer(s), or to potential purchasers or assignees of Affected System Interconnection Customer(s), on a need-to-know basis in connection with this Agreement, unless such person has first been advised of the confidentiality provisions of this Article 8 and has agreed to comply with such provisions. Notwithstanding the foregoing, a Party providing Confidential Information to any person shall remain primarily responsible for any release of Confidential Information in contravention of this Article 8.

8.1.4 Rights. Each Party shall retain all rights, title, and interest in the Confidential Information that it discloses to the receiving Party. The disclosure by a Party to the receiving Party of Confidential Information shall not be deemed a waiver by the disclosing Party or any other person or entity of the right to protect the Confidential Information from public disclosure.

8.1.5 Standard of Care. Each Party shall use at least the same standard of care to protect Confidential Information it receives as it uses to protect its own Confidential Information from unauthorized disclosure, publication, or dissemination. Each Party may use Confidential Information solely to fulfill its obligations to the other Party under this Agreement or its regulatory requirements.

8.1.6 Order of Disclosure. If a court or a Government Authority or entity with the right, power, and apparent authority to do so requests or requires any Party, by subpoena, oral deposition, interrogatories, requests for production of documents, administrative order, or otherwise, to disclose Confidential Information, that Party shall provide the disclosing Party with prompt notice of such request(s) or requirement(s) so that the disclosing Party may seek an appropriate protective order or waive compliance with the terms of this Agreement. Notwithstanding the absence of a protective order or waiver, the Party may disclose such Confidential Information which, in the opinion of its counsel, the Party is legally compelled to disclose. Each Party will use Reasonable Efforts to obtain reliable assurance that confidential treatment will be accorded any Confidential Information so furnished.

8.1.7 Termination of Agreement. Upon termination of this Agreement for any reason, each Party shall, within ten (10) Business Days of receipt of a written request from the other Party, use Reasonable Efforts to destroy, erase, or delete (with such

destruction, erasure, and deletion certified in writing to the requesting Party) or return to the requesting Party any and all written or electronic Confidential Information received from the requesting Party, except that each Party may keep one copy for archival purposes, provided that the obligation to treat it as Confidential Information in accordance with this Article 8 shall survive such termination.

8.1.8 Remedies. The Parties agree that monetary damages would be inadequate to compensate a Party for another Party's Breach of its obligations under this Article 8. Each Party accordingly agrees that the disclosing Party shall be entitled to equitable relief, by way of injunction or otherwise, if the receiving Party Breaches or threatens to Breach its obligations under this Article 8, which equitable relief shall be granted without bond or proof of damages, and the Breaching Party shall not plead in defense that there would be an adequate remedy at law. Such remedy shall not be deemed an exclusive remedy for the Breach of this Article 8, but it shall be in addition to all other remedies available at law or in equity. The Parties further acknowledge and agree that the covenants contained herein are necessary for the protection of legitimate business interests and are reasonable in scope. No Party, however, shall be liable for indirect, incidental, or consequential or punitive damages of any nature or kind resulting from or arising in connection with this Article 8.

8.1.9 Disclosure to FERC, its Staff, or a State Regulatory Body. Notwithstanding anything in this Article 8 to the contrary, and pursuant to 18 CFR 1b.20, if FERC or its staff, during the course of an investigation or otherwise, requests information from a Party that is otherwise required to be maintained in confidence pursuant to this Agreement, the Party shall provide the requested information to FERC or its staff, within the time provided for in the request for information. In providing the information to FERC or its staff, the Party must, consistent with 18 CFR 388.112, request that the information be treated as confidential and non-public by FERC and its staff and that the information be withheld from public disclosure. Parties are prohibited from notifying the other Parties to this Agreement prior to the release of the Confidential Information to FERC or its staff. The Party shall notify the other Parties to the Agreement when it is notified by FERC or its staff that a request to release Confidential Information has been received by FERC, at which time either of the Parties may respond before such information would be made public, pursuant to 18 CFR 388.112. Requests from a state regulatory body conducting a confidential investigation shall be treated in a similar manner if consistent with the applicable state rules and regulations.

8.1.10 Subject to the exception in Article 8.1.9, any information that a disclosing Party claims is competitively sensitive, commercial, or financial information under this Agreement shall not be disclosed by the receiving Party to any person not employed or retained by the receiving Party, except to the extent disclosure is (1) required by law;

(2) reasonably deemed by the disclosing Party to be required to be disclosed in connection with a dispute between or among the Parties, or the defense of litigation or dispute; (3) otherwise permitted by consent of the disclosing Party, such consent not to be unreasonably withheld; or (4) necessary to fulfill its obligations under this Agreement or as Transmission Provider or a balancing authority, including disclosing the Confidential Information to a regional or national reliability organization. The Party asserting confidentiality shall notify the receiving Party in writing of the information that Party claims is confidential. Prior to any disclosures of that Party's Confidential Information under this subparagraph, or if any non-Party or Governmental Authority makes any request or demand for any of the information described in this subparagraph, the Party that received the Confidential Information from the disclosing Party agrees to promptly notify the disclosing Party in writing and agrees to assert confidentiality and cooperate with the disclosing Party in seeking to protect the Confidential Information from public disclosure by confidentiality agreement, protective order, or other reasonable measures.

Article 9

Information Access and Audit Rights

9.1 Information Access. Each Party shall make available to the other Parties information necessary to verify the costs incurred by the other Parties for which the requesting Party is responsible under this Agreement and carry out obligations and responsibilities under this Agreement, provided that the Parties shall not use such information for purposes other than those set forth in this Article 9.1 and to enforce their rights under this Agreement.

9.2 Audit Rights. Subject to the requirements of confidentiality under Article 8 of this Agreement, the accounts and records related to the design, engineering, procurement, and construction of the Affected System Network Upgrade(s) shall be subject to audit during the period of this Agreement and for a period of twenty-four (24) months following Transmission Provider's issuance of a final invoice in accordance with Article 4.4. Affected System Interconnection Customers may, jointly or individually, at the expense of the requesting Party(ies), during normal business hours, and upon prior reasonable notice to Transmission Provider, audit such accounts and records. Any audit authorized by this Article 9.2 shall be performed at the offices where such accounts and records are maintained and shall be limited to those portions of such accounts and records that relate to obligations under this Agreement.

Article 10

Notices

10.1 General. Any notice, demand, or request required or permitted to be given by a Party to the other Parties, and any instrument required or permitted to be tendered or delivered by a Party in writing to another Party, may be so given, tendered, or delivered, as the case may be, by depositing

the same with the United States Postal Service with postage prepaid, for transmission by certified or registered mail, addressed to the Parties, or personally delivered to the Parties, at the address set out below:

To Transmission Provider:
To Affected System Interconnection Customers:

10.2 Billings and Payments. Billings and payments shall be sent to the addresses shown in Article 10.1 unless otherwise agreed to by the Parties.

10.3 Alternative Forms of Notice. Any notice or request required or permitted to be given by a Party to the other Parties and not required by this Agreement to be given in writing may be so given by telephone, facsimile, or email to the telephone numbers and email addresses set out below:

To Transmission Provider:
To Affected System Interconnection Customers:

10.4 Execution and Filing. Affected System Interconnection Customers shall either: (i) execute two originals of this tendered Agreement and return them to Transmission Provider; or (ii) request in writing that Transmission Provider file with FERC this Agreement in unexecuted form. As soon as practicable, but not later than ten (10) Business Days after receiving either the two executed originals of this tendered Agreement (if it does not conform with a FERC-approved standard form of this Agreement) or the request to file this Agreement unexecuted, Transmission Provider shall file this Agreement with FERC, together with its explanation of any matters as to which Affected System Interconnection Customers and Transmission Provider disagree and support for the costs that Transmission Provider proposes to charge to Affected System Interconnection Customers under this Agreement. An unexecuted version of this Agreement should contain terms and conditions deemed appropriate by Transmission Provider for the Affected System Interconnection Customers' generating facilities. If the Parties agree to proceed with design, procurement, and construction of facilities and upgrades under the agreed-upon terms of the unexecuted version of this Agreement, they may proceed pending FERC action.

Article 11—Miscellaneous

11.1 This Agreement shall include standard miscellaneous terms including, but not limited to, indemnities, representations, disclaimers, warranties, governing law, amendment, execution, waiver, enforceability, and assignment, which reflect best practices in the electric industry, that are consistent with regional practices, Applicable Laws and Regulations, and the organizational nature of each Party. All of these provisions, to the extent practicable, shall be consistent with the provisions of this LGIP.

[Signature Page to Follow]

In witness whereof, the Parties have executed this Agreement in multiple originals, each of which shall constitute and be an original Agreement among the Parties.

Transmission Provider {Transmission Provider}	Project No. ____	{description}
By: _____	Attachment A to Appendix 12—Multiparty Affected System Facilities Construction Agreement	1.2 First Equipment Order (including permitting).
Name: _____		{description}
Title: _____	Affected System Network Upgrade(s), Cost Estimates and Responsibility, Construction Schedule, and Monthly Payment Schedule	1.2.1 Permitting and Land Rights—Transmission Provider Affected System Network Upgrade(s).
Affected System Interconnection Customer {Affected System Interconnection Customer}	This Appendix A is a part of the Multiparty Affected System Facilities Construction Agreement between Affected System Interconnection Customers and Transmission Provider.	{description}
By: _____		1.3 Construction Schedule. Where applicable, construction of the Affected System Network Upgrade(s) is scheduled as follows and will be periodically updated as necessary:
Name: _____	1.1 Affected System Network Upgrade(s) to be installed by Transmission Provider.	
Title: _____		

Table 3—Transmission Provider Construction Activities

Milestone No.	Description	Start date	End date

Note: Construction schedule assumes that Transmission Provider has obtained final authorizations and security from Affected System Interconnection Customers and all necessary permits from Governmental Authorities as necessary prerequisites to commence construction of any of the Affected System Network Upgrade(s).

1.4 Payment Schedule.

1.4.1 Timing of and Adjustments to Affected System Interconnection Customers' Payments and Security.

{description}

1.4.2 Monthly Payment Schedule.

Affected System Interconnection Customers' payment schedule is as follows.

{description}

Table 4—Affected System Interconnection Customers' Payment/Security Obligations for Affected System Network Upgrade(s)

Milestone No.	Description	Date

* Affected System Interconnection Customers' proportionate responsibility for each payment is as follows:

Affected System Interconnection Customer 1 ____%

Affected System Interconnection Customer 2 ____%

Affected System Interconnection Customer N ____%

Note: Affected System Interconnection Customers' payment or provision of security as provided in this Agreement operates as a condition precedent to Transmission Provider's obligations to construct any Affected System Network Upgrade(s), and failure to meet this schedule will constitute a Breach pursuant to Article 5.1 of this Agreement.

1.5 Permits, Licenses, and Authorizations.

{description}

Attachment B to Appendix 12—Multiparty Affected System Facilities Construction Agreement

Notification of Completed Construction

This Appendix B is a part of the Multiparty Affected System Facilities Construction Agreement among Affected System Interconnection Customers and Transmission Provider. Where applicable, when Transmission Provider has completed construction of the Affected System Network Upgrade(s), Transmission Provider shall send notice to Affected System Interconnection Customers in substantially the form following:

{Date}

{Affected System Interconnection Customers Addresses}

Re: Completion of Affected System Network Upgrade(s)

Dear {Name or Title}:

This letter is sent pursuant to the Multiparty Affected System Facilities Construction Agreement among {Transmission Provider} and {Affected System Interconnection Customers}, dated ____, 20__.

On {Date}, Transmission Provider completed to its satisfaction all work on the Affected System Network Upgrade(s) required to facilitate the safe and reliable interconnection and operation of Affected System Interconnection Customer's generating facilities. Transmission Provider confirms that the Affected System Network Upgrade(s) are in place.

Thank you.

{Signature}

{Transmission Provider Representative}

Attachment C to Appendix 12—Multiparty Affected System Facilities Construction Agreement

Exhibits

This Appendix C is a part of the Multiparty Affected System Facilities Construction Agreement among Affected System Interconnection Customers and Transmission Provider.

Exhibit A1—Transmission Provider Site Map

Exhibit A2—Site Plan

Exhibit A3—Affected System Network Upgrade(s) Plan & Profile

Exhibit A4—Estimated Cost of Affected System Network Upgrade(s)

Location	Facilities to be constructed by transmission provider	Estimate in dollars
.....	Total:	

Appendix D: Pro forma LGIA

Note: Deletions are in brackets and additions are in italics.

Standard Large Generator Interconnection Agreement

THIS STANDARD LARGE GENERATOR INTERCONNECTION AGREEMENT ("Agreement") is made and entered into this _ day of __, 20__, by and between __, a __ organized and existing under the laws of the State/Commonwealth of __ ("Interconnection Customer" with a Large Generating Facility), and __, a __ organized and existing under the laws of the State/Commonwealth of __ ("Transmission Provider and/or Transmission Owner"). Interconnection Customer and Transmission Provider each may be referred to as a "Party" or collectively as the "Parties."

Recitals

Whereas, Transmission Provider operates the Transmission System; and

Whereas, Interconnection Customer intends to own, lease and/or control and operate the Generating Facility identified as a Large Generating Facility in Appendix C to this Agreement; and,

Whereas, Interconnection Customer and Transmission Provider have agreed to enter into this Agreement for the purpose of interconnecting the Large Generating Facility with the Transmission System;

Now, therefore, in consideration of and subject to the mutual covenants contained herein, it is agreed:

When used in this Standard Large Generator Interconnection Agreement, terms with initial capitalization that are not defined in Article 1 shall have the meanings specified in the Article in which they are used or the Open Access Transmission Tariff (Tariff).

Article 1. Definitions

Adverse System Impact shall mean the negative effects due to technical or operational limits on conductors or equipment being exceeded that may compromise the safety and reliability of the electric system.

Affected System shall mean an electric system other than [the] Transmission Provider's Transmission System that may be affected by the proposed interconnection.

Affected System Operator shall mean the entity that operates an Affected System.

Affiliate shall mean, with respect to a corporation, partnership or other entity, each such other corporation, partnership or other entity that directly or indirectly, through one or more intermediaries, controls, is controlled by, or is under common control with, such corporation, partnership or other entity.

Ancillary Services shall mean those services that are necessary to support the transmission of capacity and energy from resources to loads while maintaining reliable operation of the Transmission Provider's Transmission System in accordance with Good Utility Practice.

Applicable Laws and Regulations shall mean all duly promulgated applicable federal, state and local laws, regulations,

rules, ordinances, codes, decrees, judgments, directives, or judicial or administrative orders, permits and other duly authorized actions of any Governmental Authority.

[Applicable Reliability Council shall mean the reliability council applicable to the Transmission System to which the Generating Facility is directly interconnected.]

Applicable Reliability Standards shall mean the requirements and guidelines of [NERC,]the [Applicable Reliability Council]Electric Reliability Organization and the [Control Area]Balancing Authority Area of the Transmission System to which the Generating Facility is directly interconnected.

Balancing Authority shall mean an entity that integrates resource plans ahead of time, maintains demand and resource balance within a Balancing Authority Area, and supports interconnection frequency in real time.

Balancing Authority Area shall mean the collection of generation, transmission, and loads within the metered boundaries of the Balancing Authority. The Balancing Authority maintains load-resource balance within this area.

Base Case shall mean the base case power flow, short circuit, and stability data bases used for the Interconnection Studies by [the] Transmission Provider or Interconnection Customer.

Breach shall mean the failure of a Party to perform or observe any material term or condition of the Standard Large Generator Interconnection Agreement.

Breaching Party shall mean a Party that is in Breach of the Standard Large Generator Interconnection Agreement.

Business Day shall mean Monday through Friday, excluding Federal Holidays.

Calendar Day shall mean any day including Saturday, Sunday or a Federal Holiday.

Cluster shall mean a group of one or more Interconnection Requests that are studied together for the purpose of conducting a Cluster Study.

Cluster Restudy shall mean a restudy of a Cluster Study conducted pursuant to Section 7.5 of the LGIP.

Cluster Study shall mean the evaluation of one or more Interconnection Requests within a Cluster as described in Section 7 of the LGIP.

Clustering shall mean the process whereby one or more [a group of]Interconnection Requests [is] are studied together, instead of serially, [for the purpose of conducting the Interconnection System Impact Study]as described in Section 7 of the LGIP.

Commercial Operation shall mean the status of a Generating Facility that has commenced generating electricity for sale, excluding electricity generated during Trial Operation.

Commercial Operation Date of a unit shall mean the date on which the Generating Facility commences Commercial Operation as agreed to by the Parties pursuant to Appendix E to the Standard Large Generator Interconnection Agreement.

Confidential Information shall mean any confidential, proprietary or trade secret

information of a plan, specification, pattern, procedure, design, device, list, concept, policy or compilation relating to the present or planned business of a Party, which is designated as confidential by the Party supplying the information, whether conveyed orally, electronically, in writing, through inspection, or otherwise.

Contingent Facilities shall mean those unbuilt Interconnection Facilities and Network Upgrades upon which the Interconnection Request's costs, timing, and study findings are dependent, and if delayed or not built, could cause a need for restudies of the Interconnection Request or a reassessment of the Interconnection Facilities and/or Network Upgrades and/or costs and timing.

[Control Area shall mean an electrical system or systems bounded by interconnection metering and telemetry, capable of controlling generation to maintain its interchange schedule with other Control Areas and contributing to frequency regulation of the interconnection. A Control Area must be certified by an Applicable Reliability Council.]

Default shall mean the failure of a Breaching Party to cure its Breach in accordance with Article 17 of the Standard Large Generator Interconnection Agreement.

Dispute Resolution shall mean the procedure for resolution of a dispute between the Parties in which they will first attempt to resolve the dispute on an informal basis.

Distribution System shall mean the Transmission Provider's facilities and equipment used to transmit electricity to ultimate usage points such as homes and industries directly from nearby generators or from interchanges with higher voltage transmission networks which transport bulk power over longer distances. The voltage levels at which distribution systems operate differ among areas.

Distribution Upgrades shall mean the additions, modifications, and upgrades to the Transmission Provider's Distribution System at or beyond the Point of Interconnection to facilitate interconnection of the Generating Facility and render the transmission service necessary to effect Interconnection Customer's wholesale sale of electricity in interstate commerce. Distribution Upgrades do not include Interconnection Facilities.

Effective Date shall mean the date on which the Standard Large Generator Interconnection Agreement becomes effective upon execution by the Parties subject to acceptance by FERC, or if filed unexecuted, upon the date specified by FERC.

Electric Reliability Organization shall mean the North American Electric Reliability Corporation or its successor organization.

Emergency Condition shall mean a condition or situation: (1) that in the judgment of the Party making the claim is imminently likely to endanger life or property; or (2) that, in the case of a Transmission Provider, is imminently likely (as determined in a non-discriminatory manner) to cause a material adverse effect on the security of, or damage to Transmission Provider's Transmission System, Transmission Provider's Interconnection Facilities or the electric systems of others to

which the Transmission Provider's Transmission System is directly connected; or (3) that, in the case of Interconnection Customer, is imminently likely (as determined in a non-discriminatory manner) to cause a material adverse effect on the security of, or damage to, the Generating Facility or Interconnection Customer's Interconnection Facilities. System restoration and black start shall be considered Emergency Conditions; provided, that Interconnection Customer is not obligated by the Standard Large Generator Interconnection Agreement to possess black start capability.

Energy Resource Interconnection Service shall mean an Interconnection Service that allows the Interconnection Customer to connect its Generating Facility to the Transmission Provider's Transmission System to be eligible to deliver the Generating Facility's electric output using the existing firm or nonfirm capacity of the Transmission Provider's Transmission System on an as available basis. Energy Resource Interconnection Service in and of itself does not convey transmission service.

Engineering & Procurement (E&P) Agreement shall mean an agreement that authorizes the Transmission Provider to begin engineering and procurement of long lead-time items necessary for the establishment of the interconnection in order to advance the implementation of the Interconnection Request.

Environmental Law shall mean Applicable Laws or Regulations relating to pollution or protection of the environment or natural resources.

Federal Power Act shall mean the Federal Power Act, as amended, 16 U.S.C. 791a *et seq.*

FERC shall mean the Federal Energy Regulatory Commission (Commission) or its successor.

Force Majeure shall mean any act of God, labor disturbance, act of the public enemy, war, insurrection, riot, fire, storm or flood, explosion, breakage or accident to machinery or equipment, any order, regulation or restriction imposed by governmental, military or lawfully established civilian authorities, or any other cause beyond a Party's control. A Force Majeure event does not include acts of negligence or intentional wrongdoing by the Party claiming Force Majeure.

Generating Facility shall mean Interconnection Customer's [device] *device(s)* for the production and/or storage for later injection of electricity identified in the Interconnection Request, but shall not include [the] Interconnection Customer's Interconnection Facilities.

Generating Facility Capacity shall mean the net capacity of the Generating Facility [and] or the aggregate net capacity of the Generating Facility where it includes [multiple energy production devices] *more than one device for the production and/or storage for later injection of electricity.*

Good Utility Practice shall mean any of the practices, methods and acts engaged in or approved by a significant portion of the electric industry during the relevant time period, or any of the practices, methods and acts which, in the exercise of reasonable

judgment in light of the facts known at the time the decision was made, could have been expected to accomplish the desired result at a reasonable cost consistent with good business practices, reliability, safety and expedition. Good Utility Practice is not intended to be limited to the optimum practice, method, or act to the exclusion of all others, but rather to be acceptable practices, methods, or acts generally accepted in the region.

Governmental Authority shall mean any federal, state, local or other governmental regulatory or administrative agency, court, commission, department, board, or other governmental subdivision, legislature, rulemaking board, tribunal, or other governmental authority having jurisdiction over the Parties, their respective facilities, or the respective services they provide, and exercising or entitled to exercise any administrative, executive, police, or taxing authority or power; provided, however, that such term does not include Interconnection Customer, Transmission Provider, or any Affiliate thereof.

Hazardous Substances shall mean any chemicals, materials or substances defined as or included in the definition of "hazardous substances," "hazardous wastes," "hazardous materials," "hazardous constituents," "restricted hazardous materials," "extremely hazardous substances," "toxic substances," "radioactive substances," "contaminants," "pollutants," "toxic pollutants" or words of similar meaning and regulatory effect under any applicable Environmental Law, or any other chemical, material or substance, exposure to which is prohibited, limited or regulated by any applicable Environmental Law.

Initial Synchronization Date shall mean the date upon which the Generating Facility is initially synchronized and upon which Trial Operation begins.

In-Service Date shall mean the date upon which the Interconnection Customer reasonably expects it will be ready to begin use of the Transmission Provider's Interconnection Facilities to obtain back feed power.

Interconnection Customer shall mean any entity, including the Transmission Provider, Transmission Owner or any of the Affiliates or subsidiaries of either, that proposes to interconnect its Generating Facility with the Transmission Provider's Transmission System.

Interconnection Customer's Interconnection Facilities shall mean all facilities and equipment, as identified in Appendix A of the Standard Large Generator Interconnection Agreement, that are located between the Generating Facility and the Point of Change of Ownership, including any modification, addition, or upgrades to such facilities and equipment necessary to physically and electrically interconnect the Generating Facility to the Transmission Provider's Transmission System. Interconnection Customer's Interconnection Facilities are sole use facilities.

Interconnection Facilities shall mean [the] Transmission Provider's Interconnection Facilities and [the] Interconnection Customer's Interconnection Facilities.

Collectively, Interconnection Facilities include all facilities and equipment between the Generating Facility and the Point of Interconnection, including any modification, additions or upgrades that are necessary to physically and electrically interconnect the Generating Facility to [the] Transmission Provider's Transmission System. Interconnection Facilities are sole use facilities and shall not include Distribution Upgrades, Stand Alone Network Upgrades or Network Upgrades.

Interconnection Facilities Study shall mean a study conducted by [the] Transmission Provider or a third party consultant for [the] Interconnection Customer to determine a list of facilities (including Transmission Provider's Interconnection Facilities and Network Upgrades as identified in the [Interconnection System Impact] *Cluster Study*), the cost of those facilities, and the time required to interconnect the Generating Facility with [the] Transmission Provider's Transmission System. The scope of the study is defined in Section 8 of the *LGIP* [the Standard Large Generator Interconnection Procedures].

Interconnection Facilities Study Agreement shall mean the form of agreement contained in Appendix 3[4] of the Standard Large Generator Interconnection Procedures for conducting the Interconnection Facilities Study.

Interconnection Feasibility Study shall mean a preliminary evaluation of the system impact and cost of interconnecting the Generating Facility to the Transmission Provider's Transmission System, the scope of which is described in Section 6 of the Standard Large Generator Interconnection Procedures.]

[Interconnection Feasibility Study Agreement shall mean the form of agreement contained in Appendix 2 of the Standard Large Generator Interconnection Procedures for conducting the Interconnection Feasibility Study.]

Interconnection Request shall mean an Interconnection Customer's request, in the form of Appendix 1 to the *LGIP* [the Standard Large Generator Interconnection Procedures], in accordance with the Tariff, to interconnect a new Generating Facility, or to increase the capacity of, or make a Material Modification to the operating characteristics of, an existing Generating Facility that is interconnected with the Transmission Provider's Transmission System.

Interconnection Service shall mean the service provided by the Transmission Provider associated with interconnecting the Interconnection Customer's Generating Facility to the Transmission Provider's Transmission System and enabling it to receive electric energy and capacity from the Generating Facility at the Point of Interconnection, pursuant to the terms of the Standard Large Generator Interconnection Agreement and, if applicable, the Transmission Provider's Tariff.

Interconnection Study shall mean any of the following studies: [the Interconnection Feasibility Study, the Interconnection System Impact Study,] *the Cluster Study, the Cluster Restudy, the Surplus Interconnection Service System Impact Study*, and the

Interconnection Facilities Study, described in the *LGIP* [the Standard Large Generator Interconnection Procedures].

[Interconnection System Impact Study shall mean an engineering study that evaluates the impact of the proposed interconnection on the safety and reliability of Transmission Provider's Transmission System and, if applicable, an Affected System. The study shall identify and detail the system impacts that would result if the Generating Facility were interconnected without project modifications or system modifications, focusing on the Adverse System Impacts identified in the Interconnection Feasibility Study, or to study potential impacts, including but not limited to those identified in the Scoping Meeting as described in the Standard Large Generator Interconnection Procedures.]

Interconnection System Impact Study Agreement shall mean the form of agreement contained in Appendix 3 of the Standard Large Generator Interconnection Procedures for conducting the Interconnection System Impact Study.]

IRS shall mean the Internal Revenue Service.

Joint Operating Committee shall be a group made up of representatives from Interconnection Customers and the Transmission Provider to coordinate operating and technical considerations of Interconnection Service.

Large Generating Facility shall mean a Generating Facility having a Generating Facility Capacity of more than 20 MW.

LGIA Deposit shall mean the deposit Interconnection Customer submits when returning the executed LGIA, or within 10 Business Days of requesting that the LGIA be filed unexecuted at the Commission, in accordance with Section 11.3 of the LGIP.

Loss shall mean any and all losses relating to injury to or death of any person or damage to property, demand, suits, recoveries, costs and expenses, court costs, attorney fees, and all other obligations by or to third parties, arising out of or resulting from the other Party's performance, or non-performance of its obligations under the Standard Large Generator Interconnection Agreement on behalf of the Indemnifying Party, except in cases of gross negligence or intentional wrongdoing by the Indemnifying Party.

Material Modification shall mean those modifications that have a material impact on the cost or timing of any Interconnection Request with an equal or later Queue Position [queue priority date].

Metering Equipment shall mean all metering equipment installed or to be installed at the Generating Facility pursuant to the Standard Large Generator Interconnection Agreement at the metering points, including but not limited to instrument transformers, MWh-meters, data acquisition equipment, transducers, remote terminal unit, communications equipment, phone lines, and fiber optics.

[NERC shall mean the North American Electric Reliability Council or its successor organization.]

Network Resource shall mean any designated generating resource owned, purchased, or leased by a Network Customer

under the Network Integration Transmission Service Tariff. Network Resources do not include any resource, or any portion thereof, that is committed for sale to third parties or otherwise cannot be called upon to meet the Network Customer's Network Load on a non-interruptible basis.

Network Resource Interconnection Service shall mean an Interconnection Service that allows the Interconnection Customer to integrate its Large Generating Facility with the Transmission Provider's Transmission System (1) in a manner comparable to that in which the Transmission Provider integrates its generating facilities to serve native load customers; or (2) in an RTO or ISO with market based congestion management, in the same manner as Network Resources. Network Resource Interconnection Service in and of itself does not convey transmission service.

Network Upgrades shall mean the additions, modifications, and upgrades to the Transmission Provider's Transmission System required at or beyond the point at which the Interconnection Facilities connect to the Transmission Provider's Transmission System to accommodate the interconnection of the Large Generating Facility to the Transmission Provider's Transmission System.

Notice of Dispute shall mean a written notice of a dispute or claim that arises out of or in connection with the Standard Large Generator Interconnection Agreement or its performance.

Optional Interconnection Study shall mean a sensitivity analysis based on assumptions specified by the Interconnection Customer in the Optional Interconnection Study Agreement.

Optional Interconnection Study Agreement shall mean the form of agreement contained in Appendix 4[5] of the *LGIP* [the Standard Large Generator Interconnection Procedures] for conducting the Optional Interconnection Study.

Party or Parties shall mean Transmission Provider, Transmission Owner, Interconnection Customer or any combination of the above.

Point of Change of Ownership shall mean the point, as set forth in Appendix A to the Standard Large Generator Interconnection Agreement, where the Interconnection Customer's Interconnection Facilities connect to the Transmission Provider's Interconnection Facilities.

Point of Interconnection shall mean the point, as set forth in Appendix A to the Standard Large Generator Interconnection Agreement, where the Interconnection Facilities connect to the Transmission Provider's Transmission System.

Proportional Impact Method shall mean a technical analysis conducted by Transmission Provider to determine the degree to which each Generating Facility in the Cluster Study contributes to the need for a specific System Network Upgrade.

Provisional Interconnection Service shall mean Interconnection Service provided by Transmission Provider associated with interconnecting the Interconnection Customer's Generating Facility to Transmission Provider's Transmission System and enabling that Transmission

System to receive electric energy and capacity from the Generating Facility at the Point of Interconnection, pursuant to the terms of the Provisional Large Generator Interconnection Agreement and, if applicable, the Tariff.

Provisional Large Generator Interconnection Agreement shall mean the interconnection agreement for Provisional Interconnection Service established between Transmission Provider and/or the Transmission Owner and the Interconnection Customer. This agreement shall take the form of the Large Generator Interconnection Agreement, modified for provisional purposes.

Queue Position shall mean the order of a valid Interconnection Request, relative to all other pending valid Interconnection Requests, [that is] established pursuant to Section 4.1 of the *LGIP*. [based upon the date and time of receipt of the valid Interconnection Request by the Transmission Provider.]

Reasonable Efforts shall mean, with respect to an action required to be attempted or taken by a Party under the Standard Large Generator Interconnection Agreement, efforts that are timely and consistent with Good Utility Practice and are otherwise substantially equivalent to those a Party would use to protect its own interests.

Scoping Meeting shall mean the meeting between representatives of [the] Interconnection Customer(s) and Transmission Provider conducted for the purpose of discussing the proposed Interconnection Request and any alternative interconnection options, [to] exchanging information including any transmission data and earlier study evaluations that would be reasonably expected to impact such interconnection options, refining information and models provided by Interconnection Customer(s), discussing the Cluster Study materials posted to OASIS pursuant to Section 3.5 of the *LGIP*, and [to] analyzing such information[, and to determine the potential feasible Points of Interconnection].

Site Control shall mean [documentation reasonably demonstrating] the exclusive land right to develop, construct, operate, and maintain the Generating Facility over the term of expected operation of the Generating Facility. Site Control may be demonstrated by documentation establishing: (1) ownership of, a leasehold interest in, or a right to develop a site [for the purpose of constructing] of sufficient size to construct and operate the Generating Facility; (2) an option to purchase or acquire a leasehold site of sufficient size to construct and operate the Generating Facility for such purpose; or (3) [an exclusivity or other business relationship between] any other documentation that clearly demonstrates the right of Interconnection Customer [and the entity having the right to sell, lease or grant Interconnection Customer the right to possess or] to exclusively occupy a site [for such purpose] of sufficient size to construct and operate the Generating Facility. Transmission Provider will maintain acreage requirements for each Generating Facility type on its OASIS or public website.

Small Generating Facility shall mean a Generating Facility that has a Generating Facility Capacity of no more than 20 MW.

Stand Alone Network Upgrades shall mean Network Upgrades that are not part of an Affected System that an Interconnection Customer may construct without affecting day-to-day operations of the Transmission System during their construction and the following conditions are met: (1) a Substation Network Upgrade must only be required for a single Interconnection Customer in the Cluster and no other Interconnection Customer in that Cluster is required to interconnect to the same Substation Network Upgrades, and (2) a System Network Upgrade must only be required for a single Interconnection Customer in the Cluster, as indicated under Transmission Provider's Proportional Impact Method. Both [the]Transmission Provider and [the]Interconnection Customer must agree as to what constitutes Stand Alone Network Upgrades and identify them in Appendix A to the Standard Large Generator Interconnection Agreement. If [the]Transmission Provider and Interconnection Customer disagree about whether a particular Network Upgrade is a Stand Alone Network Upgrade, [the]Transmission Provider must provide [the]Interconnection Customer a written technical explanation outlining why [the] Transmission Provider does not consider the Network Upgrade to be a Stand Alone Network Upgrade within 15 days of its determination.

Standard Large Generator Interconnection Agreement (LGIA) shall mean the form of interconnection agreement applicable to an Interconnection Request pertaining to a Large Generating Facility that is included in the Transmission Provider's Tariff.

Standard Large Generator Interconnection Procedures (LGIP) shall mean the interconnection procedures applicable to an Interconnection Request pertaining to a Large Generating Facility that are included in the Transmission Provider's Tariff.

Substation Network Upgrades shall mean Network Upgrades that are required at the substation located at the Point of Interconnection.

Surplus Interconnection Service shall mean any unneeded portion of Interconnection Service established in a Large Generator Interconnection Agreement, such that if Surplus Interconnection Service is utilized the total amount of Interconnection Service at the Point of Interconnection would remain the same.

System Network Upgrades shall mean Network Upgrades that are required beyond the substation located at the Point of Interconnection.

System Protection Facilities shall mean the equipment, including necessary protection signal communications equipment, required to protect (1) the Transmission Provider's Transmission System from faults or other electrical disturbances occurring at the Generating Facility and (2) the Generating Facility from faults or other electrical system disturbances occurring on the Transmission Provider's Transmission System or on other delivery systems or other generating systems

to which the Transmission Provider's Transmission System is directly connected.

Tariff shall mean the Transmission Provider's Tariff through which open access transmission service and Interconnection Service are offered, as filed with FERC, and as amended or supplemented from time to time, or any successor tariff.

Transmission Owner shall mean an entity that owns, leases or otherwise possesses an interest in the portion of the Transmission System at the Point of Interconnection and may be a Party to the Standard Large Generator Interconnection Agreement to the extent necessary.

Transmission Provider shall mean the public utility (or its designated agent) that owns, controls, or operates transmission or distribution facilities used for the transmission of electricity in interstate commerce and provides transmission service under the Tariff. The term Transmission Provider should be read to include the Transmission Owner when the Transmission Owner is separate from the Transmission Provider.

Transmission Provider's Interconnection Facilities shall mean all facilities and equipment owned, controlled, or operated by [the]Transmission Provider from the Point of Change of Ownership to the Point of Interconnection as identified in Appendix A to the Standard Large Generator Interconnection Agreement, including any modifications, additions or upgrades to such facilities and equipment. Transmission Provider's Interconnection Facilities are sole use facilities and shall not include Distribution Upgrades, Stand Alone Network Upgrades or Network Upgrades.

Transmission System shall mean the facilities owned, controlled or operated by the Transmission Provider or Transmission Owner that are used to provide transmission service under the Tariff.

Trial Operation shall mean the period during which Interconnection Customer is engaged in on-site test operations and commissioning of the Generating Facility prior to Commercial Operation.

Variable Energy Resource shall mean a device for the production of electricity that is characterized by an energy source that: (1) is renewable; (2) cannot be stored by the facility owner or operator; and (3) has variability that is beyond the control of the facility owner or operator.

Withdrawal Penalty shall mean the penalty assessed by Transmission Provider to an Interconnection Customer that chooses to withdraw or is deemed withdrawn from Transmission Provider's interconnection queue or whose Generating Facility does not otherwise reach Commercial Operation. The calculation of the Withdrawal Penalty is set forth in Section 3.7.1 of the LGIP.

Article 2. Effective Date, Term, and Termination

2.1 Effective Date. This LGIA shall become effective upon execution by the Parties subject to acceptance by FERC (if applicable), or if filed unexecuted, upon the date specified by FERC. Transmission Provider shall promptly file this LGIA with FERC upon execution in accordance with Article 3.1, if required.

2.2 Term of Agreement. Subject to the provisions of Article 2.3, this LGIA shall remain in effect for a period of ten (10) years from the Effective Date or such other longer period as Interconnection Customer may request (Term to be specified in individual agreements) and shall be automatically renewed for each successive one-year period thereafter.

2.3 Termination Procedures.

2.3.1 Written Notice. This LGIA may be terminated by Interconnection Customer after giving Transmission Provider ninety (90) Calendar Days advance written notice, or by Transmission Provider notifying FERC after the Generating Facility permanently ceases Commercial Operation.

2.3.2 Default. Either Party may terminate this LGIA in accordance with Article 17.

2.3.3 Notwithstanding Articles 2.3.1 and 2.3.2, no termination shall become effective until the Parties have complied with all Applicable Laws and Regulations applicable to such termination, including the filing with FERC of a notice of termination of this LGIA, which notice has been accepted for filing by FERC.

2.4 Termination Costs. If a Party elects to terminate this Agreement pursuant to Article 2.3 above, each Party shall pay all costs incurred (including any cancellation costs relating to orders or contracts for Interconnection Facilities and equipment) or charges assessed by the other Party, as of the date of the other Party's receipt of such notice of termination, that are the responsibility of the Terminating Party under this LGIA. In the event of termination by a Party, the Parties shall use commercially Reasonable Efforts to mitigate the costs, damages and charges arising as a consequence of termination. Upon termination of this LGIA, unless otherwise ordered or approved by FERC:

2.4.1 With respect to any portion of Transmission Provider's Interconnection Facilities that have not yet been constructed or installed, Transmission Provider shall to the extent possible and with Interconnection Customer's authorization cancel any pending orders of, or return, any materials or equipment for, or contracts for construction of, such facilities; provided that in the event Interconnection Customer elects not to authorize such cancellation, Interconnection Customer shall assume all payment obligations with respect to such materials, equipment, and contracts, and Transmission Provider shall deliver such material and equipment, and, if necessary, assign such contracts, to Interconnection Customer as soon as practicable, at Interconnection Customer's expense. To the extent that Interconnection Customer has already paid Transmission Provider for any or all such costs of materials or equipment not taken by Interconnection Customer, Transmission Provider shall promptly refund such amounts to Interconnection Customer, less any costs, including penalties incurred by Transmission Provider to cancel any pending orders of or return such materials, equipment, or contracts.

If an Interconnection Customer terminates this LGIA, it shall be responsible for all costs incurred in association with that

Interconnection Customer's interconnection, including any cancellation costs relating to orders or contracts for Interconnection Facilities and equipment, and other expenses including any Network Upgrades for which Transmission Provider has incurred expenses and has not been reimbursed by Interconnection Customer.

2.4.2 Transmission Provider may, at its option, retain any portion of such materials, equipment, or facilities that Interconnection Customer chooses not to accept delivery of, in which case Transmission Provider shall be responsible for all costs associated with procuring such materials, equipment, or facilities.

2.4.3 With respect to any portion of the Interconnection Facilities, and any other facilities already installed or constructed pursuant to the terms of this LGIA, Interconnection Customer shall be responsible for all costs associated with the removal, relocation or other disposition or retirement of such materials, equipment, or facilities.

2.5 Disconnection. Upon termination of this LGIA, the Parties will take all appropriate steps to disconnect the Large Generating Facility from the Transmission System. All costs required to effectuate such disconnection shall be borne by the terminating Party, unless such termination resulted from the non-terminating Party's Default of this LGIA or such non-terminating Party otherwise is responsible for these costs under this LGIA.

2.6 Survival. This LGIA shall continue in effect after termination to the extent necessary to provide for final billings and payments and for costs incurred hereunder, including billings and payments pursuant to this LGIA; to permit the determination and enforcement of liability and indemnification obligations arising from acts or events that occurred while this LGIA was in effect; and to permit each Party to have access to the lands of the other Party pursuant to this LGIA or other applicable agreements, to disconnect, remove or salvage its own facilities and equipment.

Article 3. Regulatory Filings

3.1 Filing. Transmission Provider shall file this LGIA (and any amendment hereto) with the appropriate Governmental Authority, if required. Interconnection Customer may request that any information so provided be subject to the confidentiality provisions of Article 22. If Interconnection Customer has executed this LGIA, or any amendment thereto, Interconnection Customer shall reasonably cooperate with Transmission Provider with respect to such filing and to provide any information reasonably requested by Transmission Provider needed to comply with applicable regulatory requirements.

Article 4. Scope of Service

4.1 Interconnection Product Options. Interconnection Customer has selected the following (checked) type of Interconnection Service:

4.1.1 Energy Resource Interconnection Service

4.1.1.1 The Product. Energy Resource Interconnection Service allows Interconnection Customer to connect the Large Generating Facility to the Transmission System and be eligible to deliver the Large Generating Facility's output using the existing firm or non-firm capacity of the Transmission System on an "as available" basis. To the extent Interconnection Customer wants to receive Energy Resource Interconnection Service, Transmission Provider shall construct facilities identified in Attachment A.

4.1.1.2 Transmission Delivery Service Implications. Under Energy Resource Interconnection Service, Interconnection Customer will be eligible to inject power from the Large Generating Facility into and deliver power across the interconnecting Transmission Provider's Transmission System on an "as available" basis up to the amount of MWs identified in the applicable stability and steady state studies to the extent the upgrades initially required to qualify for Energy Resource Interconnection Service have been constructed. Where eligible to do so (e.g., PJM, ISO-NE, NYISO), Interconnection Customer may place a bid to sell into the market up to the maximum identified Large Generating Facility output, subject to any conditions specified in the interconnection service approval, and the Large Generating Facility will be dispatched to the extent Interconnection Customer's bid clears. In all other instances, no transmission delivery service from the Large Generating Facility is assured, but Interconnection Customer may obtain Point-to-Point Transmission Service, Network Integration Transmission Service, or be used for secondary network transmission service, pursuant to Transmission Provider's Tariff, up to the maximum output identified in the stability and steady state studies. In those instances, in order for Interconnection Customer to obtain the right to deliver or inject energy beyond the Large Generating Facility Point of Interconnection or to improve its ability to do so, transmission delivery service must be obtained pursuant to the provisions of Transmission Provider's Tariff. The Interconnection Customer's ability to inject its Large Generating Facility output beyond the Point of Interconnection, therefore, will depend on the existing capacity of Transmission Provider's Transmission System at such time as a transmission service request is made that would accommodate such delivery. The provision of firm Point-to-Point Transmission Service or Network Integration Transmission Service may require the construction of additional Network Upgrades.

4.1.2 Network Resource Interconnection Service

4.1.2.1 The Product. Transmission Provider must conduct the necessary studies and construct the Network Upgrades needed to integrate the Large Generating Facility (1) in a manner comparable to that in which Transmission Provider integrates its generating facilities to serve native load customers; or (2) in an ISO or RTO with

market based congestion management, in the same manner as all Network Resources. To the extent Interconnection Customer wants to receive Network Resource Interconnection Service, Transmission Provider shall construct the facilities identified in Attachment A to this LGIA.

4.1.2.2 Transmission Delivery Service Implications. Network Resource Interconnection Service allows Interconnection Customer's Large Generating Facility to be designated by any Network Customer under the Tariff on Transmission Provider's Transmission System as a Network Resource, up to the Large Generating Facility's full output, on the same basis as existing Network Resources interconnected to Transmission Provider's Transmission System, and to be studied as a Network Resource on the assumption that such a designation will occur. Although Network Resource Interconnection Service does not convey a reservation of transmission service, any Network Customer under the Tariff can utilize its network service under the Tariff to obtain delivery of energy from the interconnected Interconnection Customer's Large Generating Facility in the same manner as it accesses Network Resources. A Large Generating Facility receiving Network Resource Interconnection Service may also be used to provide Ancillary Services after technical studies and/or periodic analyses are performed with respect to the Large Generating Facility's ability to provide any applicable Ancillary Services, provided that such studies and analyses have been or would be required in connection with the provision of such Ancillary Services by any existing Network Resource. However, if an Interconnection Customer's Large Generating Facility has not been designated as a Network Resource by any load, it cannot be required to provide Ancillary Services except to the extent such requirements extend to all generating facilities that are similarly situated. The provision of Network Integration Transmission Service or firm Point-to-Point Transmission Service may require additional studies and the construction of additional upgrades. Because such studies and upgrades would be associated with a request for delivery service under the Tariff, cost responsibility for the studies and upgrades would be in accordance with FERC's policy for pricing transmission delivery services.

Network Resource Interconnection Service does not necessarily provide Interconnection Customer with the capability to physically deliver the output of its Large Generating Facility to any particular load on Transmission Provider's Transmission System without incurring congestion costs. In the event of transmission constraints on Transmission Provider's Transmission System, Interconnection Customer's Large Generating Facility shall be subject to the applicable congestion management procedures in Transmission Provider's Transmission System in the same manner as Network Resources.

There is no requirement either at the time of study or interconnection, or at any point in the future, that Interconnection Customer's Large Generating Facility be designated as a

Network Resource by a Network Service Customer under the Tariff or that Interconnection Customer identify a specific buyer (or sink). To the extent a Network Customer does designate the Large Generating Facility as a Network Resource, it must do so pursuant to Transmission Provider's Tariff.

Once an Interconnection Customer satisfies the requirements for obtaining Network Resource Interconnection Service, any future transmission service request for delivery from the Large Generating Facility within Transmission Provider's Transmission System of any amount of capacity and/or energy, up to the amount initially studied, will not require that any additional studies be performed or that any further upgrades associated with such Large Generating Facility be undertaken, regardless of whether or not such Large Generating Facility is ever designated by a Network Customer as a Network Resource and regardless of changes in ownership of the Large Generating Facility. However, the reduction or elimination of congestion or redispatch costs may require additional studies and the construction of additional upgrades.

To the extent Interconnection Customer enters into an arrangement for long term transmission service for deliveries from the Large Generating Facility outside Transmission Provider's Transmission System, such request may require additional studies and upgrades in order for Transmission Provider to grant such request.

4.2 Provision of Service. Transmission Provider shall provide Interconnection Service for the Large Generating Facility at the Point of Interconnection.

4.3 Performance Standards. Each Party shall perform all of its obligations under this LGIA in accordance with Applicable Laws and Regulations, Applicable Reliability Standards, and Good Utility Practice, and to the extent a Party is required or prevented or limited in taking any action by such regulations and standards, such Party shall not be deemed to be in Breach of this LGIA for its compliance therewith. If such Party is a Transmission Provider or Transmission Owner, then that Party shall amend the LGIA and submit the amendment to FERC for approval.

4.4 No Transmission Delivery Service. The execution of this LGIA does not constitute a request for, nor the provision of, any transmission delivery service under Transmission Provider's Tariff, and does not convey any right to deliver electricity to any specific customer or Point of Delivery.

4.5 Interconnection Customer Provided Services. The services provided by Interconnection Customer under this LGIA are set forth in Article 9.6 and Article 13.5.1. Interconnection Customer shall be paid for such services in accordance with Article 11.6.

Article 5. Interconnection Facilities Engineering, Procurement, & Construction

5.1 Options. Unless otherwise mutually agreed to between the Parties, Interconnection Customer shall select the In-Service Date, Initial Synchronization Date, and Commercial Operation Date; and either

the Standard Option or Alternate Option set forth below, and such dates and selected option shall be set forth in Appendix B, Milestones. At the same time, Interconnection Customer shall indicate whether it elects to exercise the Option to Build set forth in Article 5.1.3 below. If the dates designated by Interconnection Customer are not acceptable to Transmission Provider, Transmission Provider shall so notify Interconnection Customer within thirty (30) Calendar Days. Upon receipt of the notification that Interconnection Customer's designated dates are not acceptable to Transmission Provider, the Interconnection Customer shall notify Transmission Provider within thirty (30) Calendar Days whether it elects to exercise the Option to Build if it has not already elected to exercise the Option to Build.

5.1.1 Standard Option. Transmission Provider shall design, procure, and construct Transmission Provider's Interconnection Facilities and Network Upgrades, using Reasonable Efforts to complete Transmission Provider's Interconnection Facilities and Network Upgrades by the dates set forth in Appendix B, Milestones. Transmission Provider shall not be required to undertake any action which is inconsistent with its standard safety practices, its material and equipment specifications, its design criteria and construction procedures, its labor agreements, and Applicable Laws and Regulations. In the event Transmission Provider reasonably expects that it will not be able to complete Transmission Provider's Interconnection Facilities and Network Upgrades by the specified dates, Transmission Provider shall promptly provide written notice to Interconnection Customer and shall undertake Reasonable Efforts to meet the earliest dates thereafter.

5.1.2 Alternate Option. If the dates designated by Interconnection Customer are acceptable to Transmission Provider, Transmission Provider shall so notify Interconnection Customer within thirty (30) Calendar Days, and shall assume responsibility for the design, procurement and construction of Transmission Provider's Interconnection Facilities by the designated dates.

If Transmission Provider subsequently fails to complete Transmission Provider's Interconnection Facilities by the In-Service Date, to the extent necessary to provide back feed power; or fails to complete Network Upgrades by the Initial Synchronization Date to the extent necessary to allow for Trial Operation at full power output, unless other arrangements are made by the Parties for such Trial Operation; or fails to complete the Network Upgrades by the Commercial Operation Date, as such dates are reflected in Appendix B, Milestones; Transmission Provider shall pay Interconnection Customer liquidated damages in accordance with Article 5.3, Liquidated Damages, provided, however, the dates designated by Interconnection Customer shall be extended day for day for each day that the applicable RTO or ISO refuses to grant clearances to install equipment.

5.1.3 Option to Build. Interconnection Customer shall have the option to assume

responsibility for the design, procurement and construction of Transmission Provider's Interconnection Facilities and Stand Alone Network Upgrades on the dates specified in Article 5.1.2. Transmission Provider and Interconnection Customer must agree as to what constitutes Stand Alone Network Upgrades and identify such Stand Alone Network Upgrades in Appendix A. Except for Stand Alone Network Upgrades, Interconnection Customer shall have no right to construct Network Upgrades under this option.

5.1.4 Negotiated Option. If the dates designated by Interconnection Customer are not acceptable to Transmission Provider, the Parties shall in good faith attempt to negotiate terms and conditions (including revision of the specified dates and liquidated damages, the provision of incentives, or the procurement and construction of all facilities other than Transmission Provider's Interconnection Facilities and Stand Alone Network Upgrades if the Interconnection Customer elects to exercise the Option to Build under Article 5.1.3). If the Parties are unable to reach agreement on such terms and conditions, then pursuant to Article 5.1.1 (Standard Option), Transmission Provider shall assume responsibility for the design, procurement and construction of all facilities other than Transmission Provider's Interconnection Facilities and Stand Alone Network Upgrades if the Interconnection Customer elects to exercise the Option to Build.

5.2 General Conditions Applicable to Option to Build. If Interconnection Customer assumes responsibility for the design, procurement and construction of Transmission Provider's Interconnection Facilities and Stand Alone Network Upgrades,

(1) Interconnection Customer shall engineer, procure equipment, and construct Transmission Provider's Interconnection Facilities and Stand Alone Network Upgrades (or portions thereof) using Good Utility Practice and using standards and specifications provided in advance by Transmission Provider;

(2) Interconnection Customer's engineering, procurement and construction of Transmission Provider's Interconnection Facilities and Stand Alone Network Upgrades shall comply with all requirements of law to which Transmission Provider would be subject in the engineering, procurement or construction of Transmission Provider's Interconnection Facilities and Stand Alone Network Upgrades;

(3) Transmission Provider shall review and approve the engineering design, equipment acceptance tests, and the construction of Transmission Provider's Interconnection Facilities and Stand Alone Network Upgrades;

(4) prior to commencement of construction, Interconnection Customer shall provide to Transmission Provider a schedule for construction of Transmission Provider's Interconnection Facilities and Stand Alone Network Upgrades, and shall promptly respond to requests for information from Transmission Provider;

(5) at any time during construction, Transmission Provider shall have the right to

gain unrestricted access to Transmission Provider's Interconnection Facilities and Stand Alone Network Upgrades and to conduct inspections of the same;

(6) at any time during construction, should any phase of the engineering, equipment procurement, or construction of Transmission Provider's Interconnection Facilities and Stand Alone Network Upgrades not meet the standards and specifications provided by Transmission Provider, Interconnection Customer shall be obligated to remedy deficiencies in that portion of Transmission Provider's Interconnection Facilities and Stand Alone Network Upgrades;

(7) Interconnection Customer shall indemnify Transmission Provider for claims arising from Interconnection Customer's construction of Transmission Provider's Interconnection Facilities and Stand Alone Network Upgrades under the terms and procedures applicable to Article 18.1 Indemnity;

(8) Interconnection Customer shall transfer control of Transmission Provider's Interconnection Facilities and Stand Alone Network Upgrades to Transmission Provider;

(9) Unless Parties otherwise agree, Interconnection Customer shall transfer ownership of Transmission Provider's Interconnection Facilities and Stand-Alone Network Upgrades to Transmission Provider;

(10) Transmission Provider shall approve and accept for operation and maintenance Transmission Provider's Interconnection Facilities and Stand Alone Network Upgrades to the extent engineered, procured, and constructed in accordance with this Article 5.2; and

(11) Interconnection Customer shall deliver to Transmission Provider "as-built" drawings, information, and any other documents that are reasonably required by Transmission Provider to assure that the Interconnection Facilities and Stand-Alone Network Upgrades are built to the standards and specifications required by Transmission Provider.

(12) If Interconnection Customer exercises the Option to Build pursuant to Article 5.1.3, Interconnection Customer shall pay Transmission Provider the agreed upon amount of [\$ PLACEHOLDER] for Transmission Provider to execute the responsibilities enumerated to Transmission Provider under Article 5.2. Transmission Provider shall invoice Interconnection Customer for this total amount to be divided on a monthly basis pursuant to Article 12.

5.3 Liquidated Damages. The actual damages to Interconnection Customer, in the event Transmission Provider's Interconnection Facilities or Network Upgrades are not completed by the dates designated by Interconnection Customer and accepted by Transmission Provider pursuant to subparagraphs 5.1.2 or 5.1.4, above, may include Interconnection Customer's fixed operation and maintenance costs and lost opportunity costs. Such actual damages are uncertain and impossible to determine at this time. Because of such uncertainty, any liquidated damages paid by Transmission Provider to Interconnection Customer in the event that Transmission Provider does not

complete any portion of Transmission Provider's Interconnection Facilities or Network Upgrades by the applicable dates, shall be an amount equal to $\frac{1}{2}$ of 1 percent per day of the actual cost of Transmission Provider's Interconnection Facilities and Network Upgrades, in the aggregate, for which Transmission Provider has assumed responsibility to design, procure and construct.

However, in no event shall the total liquidated damages exceed 20 percent of the actual cost of Transmission Provider's Interconnection Facilities and Network Upgrades for which Transmission Provider has assumed responsibility to design, procure, and construct. The foregoing payments will be made by Transmission Provider to Interconnection Customer as just compensation for the damages caused to Interconnection Customer, which actual damages are uncertain and impossible to determine at this time, and as reasonable liquidated damages, but not as a penalty or a method to secure performance of this LGIA. Liquidated damages, when the Parties agree to them, are the exclusive remedy for the Transmission Provider's failure to meet its schedule.

No liquidated damages shall be paid to Interconnection Customer if: (1) Interconnection Customer is not ready to commence use of Transmission Provider's Interconnection Facilities or Network Upgrades to take the delivery of power for the Large Generating Facility's Trial Operation or to export power from the Large Generating Facility on the specified dates, unless Interconnection Customer would have been able to commence use of Transmission Provider's Interconnection Facilities or Network Upgrades to take the delivery of power for Large Generating Facility's Trial Operation or to export power from the Large Generating Facility, but for Transmission Provider's delay; (2) Transmission Provider's failure to meet the specified dates is the result of the action or inaction of Interconnection Customer or any other Interconnection Customer who has entered into an LGIA with Transmission Provider or any cause beyond Transmission Provider's reasonable control or reasonable ability to cure; (3) the Interconnection Customer has assumed responsibility for the design, procurement and construction of Transmission Provider's Interconnection Facilities and Stand Alone Network Upgrades; or (4) the Parties have otherwise agreed.

5.4 Power System Stabilizers. [The]Interconnection Customer shall procure, install, maintain and operate Power System Stabilizers in accordance with the guidelines and procedures established by the [Applicable Reliability Council]*Electric Reliability Organization*. Transmission Provider reserves the right to reasonably establish minimum acceptable settings for any installed Power System Stabilizers, subject to the design and operating limitations of the Large Generating Facility. If the Large Generating Facility's Power System Stabilizers are removed from service or not capable of automatic operation, Interconnection Customer shall immediately

notify Transmission Provider's system operator, or its designated representative. The requirements of this paragraph shall not apply to wind generators.

5.5 Equipment Procurement. If responsibility for construction of Transmission Provider's Interconnection Facilities or Network Upgrades is to be borne by Transmission Provider, then Transmission Provider shall commence design of Transmission Provider's Interconnection Facilities or Network Upgrades and procure necessary equipment as soon as practicable after all of the following conditions are satisfied, unless the Parties otherwise agree in writing:

5.5.1 Transmission Provider has completed the Facilities Study pursuant to the Facilities Study Agreement;

5.5.2 Transmission Provider has received written authorization to proceed with design and procurement from Interconnection Customer by the date specified in Appendix B, Milestones; and

5.5.3 Interconnection Customer has provided security to Transmission Provider in accordance with Article 11.5 by the dates specified in Appendix B, Milestones.

5.6 Construction Commencement. Transmission Provider shall commence construction of Transmission Provider's Interconnection Facilities and Network Upgrades for which it is responsible as soon as practicable after the following additional conditions are satisfied:

5.6.1 Approval of the appropriate Governmental Authority has been obtained for any facilities requiring regulatory approval;

5.6.2 Necessary real property rights and rights-of-way have been obtained, to the extent required for the construction of a discrete aspect of Transmission Provider's Interconnection Facilities and Network Upgrades;

5.6.3 Transmission Provider has received written authorization to proceed with construction from Interconnection Customer by the date specified in Appendix B, Milestones; and

5.6.4 Interconnection Customer has provided security to Transmission Provider in accordance with Article 11.5 by the dates specified in Appendix B, Milestones.

5.7 Work Progress. The Parties will keep each other advised periodically as to the progress of their respective design, procurement and construction efforts. Either Party may, at any time, request a progress report from the other Party. If, at any time, Interconnection Customer determines that the completion of Transmission Provider's Interconnection Facilities will not be required until after the specified In-Service Date, Interconnection Customer will provide written notice to Transmission Provider of such later date upon which the completion of Transmission Provider's Interconnection Facilities will be required.

5.8 Information Exchange. As soon as reasonably practicable after the Effective Date, the Parties shall exchange information regarding the design and compatibility of the Parties' Interconnection Facilities and compatibility of the Interconnection Facilities with Transmission Provider's

Transmission System, and shall work diligently and in good faith to make any necessary design changes.

5.9 Other Interconnection Options.

5.9.1 Limited Operation. If any of Transmission Provider's Interconnection Facilities or Network Upgrades are not reasonably expected to be completed prior to the Commercial Operation Date of the Large Generating Facility, Transmission Provider shall, upon the request and at the expense of Interconnection Customer, perform operating studies on a timely basis to determine the extent to which the Large Generating Facility and Interconnection Customer's Interconnection Facilities may operate prior to the completion of Transmission Provider's Interconnection Facilities or Network Upgrades consistent with Applicable Laws and Regulations, Applicable Reliability Standards, Good Utility Practice, and this LGIA. Transmission Provider shall permit Interconnection Customer to operate the Large Generating Facility and Interconnection Customer's Interconnection Facilities in accordance with the results of such studies.

5.9.2 Provisional Interconnection Service. Upon the request of Interconnection Customer, and prior to completion of requisite Interconnection Facilities, Network Upgrades, Distribution Upgrades, or System Protection Facilities Transmission Provider may execute a Provisional Large Generator Interconnection Agreement or Interconnection Customer may request the filing of an unexecuted Provisional Large Generator Interconnection Agreement with the Interconnection Customer for limited Interconnection Service at the discretion of Transmission Provider based upon an evaluation that will consider the results of available studies. Transmission Provider shall determine, through available studies or additional studies as necessary, whether stability, short circuit, thermal, and/or voltage issues would arise if Interconnection Customer interconnects without modifications to the Generating Facility or Transmission System. Transmission Provider shall determine whether any Interconnection Facilities, Network Upgrades, Distribution Upgrades, or System Protection Facilities that are necessary to meet the requirements of [NERC] *the Electric Reliability Organization*, or any applicable Regional Entity for the interconnection of a new, modified and/or expanded Generating Facility are in place prior to the commencement of Interconnection Service from the Generating Facility. Where available studies indicate that such, Interconnection Facilities, Network Upgrades, Distribution Upgrades, and/or System Protection Facilities that are required for the interconnection of a new, modified and/or expanded Generating Facility are not currently in place, Transmission Provider will perform a study, at the Interconnection Customer's expense, to confirm the facilities that are required for Provisional Interconnection Service. The maximum permissible output of the Generating Facility in the Provisional Large Generator Interconnection Agreement shall be studied and updated [on a frequency determined by Transmission Provider and at

the Interconnection Customer's expense]. Interconnection Customer assumes all risk and liabilities with respect to changes between the Provisional Large Generator Interconnection Agreement and the Large Generator Interconnection Agreement, including changes in output limits and Interconnection Facilities, Network Upgrades, Distribution Upgrades, and/or System Protection Facilities cost responsibilities.

5.10 Interconnection Customer's Interconnection Facilities ("ICIF"). Interconnection Customer shall, at its expense, design, procure, construct, own and install the ICIF, as set forth in Appendix A, Interconnection Facilities, Network Upgrades and Distribution Upgrades.

5.10.1 Interconnection Customer's Interconnection Facility Specifications. Interconnection Customer shall submit initial specifications for the ICIF, including System Protection Facilities, to Transmission Provider at least one hundred eighty (180) Calendar Days prior to the Initial Synchronization Date; and final specifications for review and comment at least ninety (90) Calendar Days prior to the Initial Synchronization Date. Transmission Provider shall review such specifications to ensure that the ICIF are compatible with the technical specifications, operational control, and safety requirements of Transmission Provider and comment on such specifications within thirty (30) Calendar Days of Interconnection Customer's submission. All specifications provided hereunder shall be deemed confidential.

5.10.2 Transmission Provider's Review. Transmission Provider's review of Interconnection Customer's final specifications shall not be construed as confirming, endorsing, or providing a warranty as to the design, fitness, safety, durability or reliability of the Large Generating Facility, or the ICIF. Interconnection Customer shall make such changes to the ICIF as may reasonably be required by Transmission Provider, in accordance with Good Utility Practice, to ensure that the ICIF are compatible with the technical specifications, operational control, and safety requirements of Transmission Provider.

5.10.3 ICIF Construction. The ICIF shall be designed and constructed in accordance with Good Utility Practice. Within one hundred twenty (120) Calendar Days after the Commercial Operation Date, unless the Parties agree on another mutually acceptable deadline, Interconnection Customer shall deliver to Transmission Provider "as-built" drawings, information and documents for the ICIF, such as: a one-line diagram, a site plan showing the Large Generating Facility and the ICIF, plan and elevation drawings showing the layout of the ICIF, a relay functional diagram, relaying AC and DC schematic wiring diagrams and relay settings for all facilities associated with Interconnection Customer's step-up transformers, the facilities connecting the Large Generating Facility to the step-up transformers and the ICIF, and the impedances (determined by factory tests) for the associated step-up transformers and the

Large Generating Facility. The Interconnection Customer shall provide Transmission Provider specifications for the excitation system, automatic voltage regulator, Large Generating Facility control and protection settings, transformer tap settings, and communications, if applicable.

5.11 Transmission Provider's Interconnection Facilities Construction. Transmission Provider's Interconnection Facilities shall be designed and constructed in accordance with Good Utility Practice. Upon request, within one hundred twenty (120) Calendar Days after the Commercial Operation Date, unless the Parties agree on another mutually acceptable deadline, Transmission Provider shall deliver to Interconnection Customer the following "as-built" drawings, information and documents for Transmission Provider's Interconnection Facilities [include appropriate drawings and relay diagrams].

Transmission Provider will obtain control of Transmission Provider's Interconnection Facilities and Stand Alone Network Upgrades upon completion of such facilities.

5.12 Access Rights. Upon reasonable notice and supervision by a Party, and subject to any required or necessary regulatory approvals, a Party ("Granting Party") shall furnish *at no cost* to the other Party ("Access Party") any rights of use, licenses, rights of way and easements with respect to lands owned or controlled by the Granting Party, its agents (if allowed under the applicable agency agreement), or any Affiliate, that are necessary to enable the Access Party to obtain ingress and egress to construct, operate, maintain, repair, test (or witness testing), inspect, replace or remove facilities and equipment to: (i) interconnect the Large Generating Facility with the Transmission System; (ii) operate and maintain the Large Generating Facility, the Interconnection Facilities and the Transmission System; and (iii) disconnect or remove the Access Party's facilities and equipment upon termination of this LGIA. In exercising such licenses, rights of way and easements, the Access Party shall not unreasonably disrupt or interfere with normal operation of the Granting Party's business and shall adhere to the safety rules and procedures established in advance, as may be changed from time to time, by the Granting Party and provided to the Access Party.

5.13 Lands of Other Property Owners. If any part of Transmission Provider or Transmission Owner's Interconnection Facilities and/or Network Upgrades is to be installed on property owned by persons other than Interconnection Customer or Transmission Provider or Transmission Owner, Transmission Provider or Transmission Owner shall at Interconnection Customer's expense use efforts, similar in nature and extent to those that it typically undertakes on its own behalf or on behalf of its Affiliates, including use of its eminent domain authority, and to the extent consistent with state law, to procure from such persons any rights of use, licenses, rights of way and easements that are necessary to construct, operate, maintain, test, inspect, replace or remove Transmission

Provider or Transmission Owner's Interconnection Facilities and/or Network Upgrades upon such property.

5.14 Permits. Transmission Provider or Transmission Owner and Interconnection Customer shall cooperate with each other in good faith in obtaining all permits, licenses, and authorizations that are necessary to accomplish the interconnection in compliance with Applicable Laws and Regulations. With respect to this paragraph, Transmission Provider or Transmission Owner shall provide permitting assistance to Interconnection Customer comparable to that provided to Transmission Provider's own, or an Affiliate's generation.

5.15 Early Construction of Base Case Facilities. Interconnection Customer may request Transmission Provider to construct, and Transmission Provider shall construct, using Reasonable Efforts to accommodate Interconnection Customer's In-Service Date, all or any portion of any Network Upgrades required for Interconnection Customer to be interconnected to the Transmission System which are included in the Base Case of the Facilities Study for Interconnection Customer, and which also are required to be constructed for another Interconnection Customer, but where such construction is not scheduled to be completed in time to achieve Interconnection Customer's In-Service Date.

5.16 Suspension. Interconnection Customer reserves the right, upon written notice to Transmission Provider, to suspend at any time all work by Transmission Provider associated with the construction and installation of Transmission Provider's Interconnection Facilities and/or Network Upgrades required under this LGIA with the condition that Transmission System shall be left in a safe and reliable condition in accordance with Good Utility Practice and Transmission Provider's safety and reliability criteria. In such event, Interconnection Customer shall be responsible for all reasonable and necessary costs which Transmission Provider (i) has incurred pursuant to this LGIA prior to the suspension and (ii) incurs in suspending such work, including any costs incurred to perform such work as may be necessary to ensure the safety of persons and property and the integrity of the Transmission System during such suspension and, if applicable, any costs incurred in connection with the cancellation or suspension of material, equipment and labor contracts which Transmission Provider cannot reasonably avoid; provided, however, that prior to canceling or suspending any such material, equipment or labor contract, Transmission Provider shall obtain Interconnection Customer's authorization to do so.

Transmission Provider shall invoice Interconnection Customer for such costs pursuant to Article 12 and shall use due diligence to minimize its costs. In the event Interconnection Customer suspends work by Transmission Provider required under this LGIA pursuant to this Article 5.16, and has not requested Transmission Provider to recommence the work required under this LGIA on or before the expiration of three (3) years following commencement of such suspension, this LGIA shall be deemed

terminated. The three-year period shall begin on the date the suspension is requested, or the date of the written notice to Transmission Provider, if no effective date is specified.

5.17 Taxes.

5.17.1 Interconnection Customer Payments Not Taxable. The Parties intend that all payments or property transfers made by Interconnection Customer to Transmission Provider for the installation of Transmission Provider's Interconnection Facilities and the Network Upgrades shall be non-taxable, either as contributions to capital, or as an advance, in accordance with the Internal Revenue Code and any applicable state income tax laws and shall not be taxable as contributions in aid of construction or otherwise under the Internal Revenue Code and any applicable state income tax laws.

5.17.2 Representations and Covenants. In accordance with IRS Notice 2001–82 and IRS Notice 88–129, Interconnection Customer represents and covenants that (i) ownership of the electricity generated at the Large Generating Facility will pass to another party prior to the transmission of the electricity on the Transmission System, (ii) for income tax purposes, the amount of any payments and the cost of any property transferred to Transmission Provider for Transmission Provider's Interconnection Facilities will be capitalized by Interconnection Customer as an intangible asset and recovered using the straight-line method over a useful life of twenty (20) years, and (iii) any portion of Transmission Provider's Interconnection Facilities that is a “dual-use intertie,” within the meaning of IRS Notice 88–129, is reasonably expected to carry only a de minimis amount of electricity in the direction of the Large Generating Facility. For this purpose, “de minimis amount” means no more than 5 percent of the total power flows in both directions, calculated in accordance with the “5 percent test” set forth in IRS Notice 88–129. This is not intended to be an exclusive list of the relevant conditions that must be met to conform to IRS requirements for non-taxable treatment.

At Transmission Provider's request, Interconnection Customer shall provide Transmission Provider with a report from an independent engineer confirming its representation in clause (iii), above. Transmission Provider represents and covenants that the cost of Transmission Provider's Interconnection Facilities paid for by Interconnection Customer will have no net effect on the base upon which rates are determined.

5.17.3 Indemnification for the Cost Consequences of Current Tax Liability Imposed Upon the Transmission Provider. Notwithstanding Article 5.17.1, Interconnection Customer shall protect, indemnify and hold harmless Transmission Provider from the cost consequences of any current tax liability imposed against Transmission Provider as the result of payments or property transfers made by Interconnection Customer to Transmission Provider under this LGIA for Interconnection Facilities, as well as any interest and penalties, other than interest and penalties attributable to any delay caused by Transmission Provider.

Transmission Provider shall not include a gross-up for the cost consequences of any current tax liability in the amounts it charges Interconnection Customer under this LGIA unless (i) Transmission Provider has determined, in good faith, that the payments or property transfers made by Interconnection Customer to Transmission Provider should be reported as income subject to taxation or (ii) any Governmental Authority directs Transmission Provider to report payments or property as income subject to taxation; *provided, however*, that Transmission Provider may require Interconnection Customer to provide security for Interconnection Facilities, in a form reasonably acceptable to Transmission Provider (such as a parental guarantee or a letter of credit), in an amount equal to the cost consequences of any current tax liability under this Article 5.17. Interconnection Customer shall reimburse Transmission Provider for such costs on a fully grossed-up basis, in accordance with Article 5.17.4, within thirty (30) Calendar Days of receiving written notification from Transmission Provider of the amount due, including detail about how the amount was calculated.

The indemnification obligation shall terminate at the earlier of (1) the expiration of the ten year testing period and the applicable statute of limitation, as it may be extended by Transmission Provider upon request of the IRS, to keep these years open for audit or adjustment, or (2) the occurrence of a subsequent taxable event and the payment of any related indemnification obligations as contemplated by this Article 5.17.

5.17.4 Tax Gross-Up Amount. Interconnection Customer's liability for the cost consequences of any current tax liability under this Article 5.17 shall be calculated on a fully grossed-up basis. Except as may otherwise be agreed to by the parties, this means that Interconnection Customer will pay Transmission Provider, in addition to the amount paid for the Interconnection Facilities and Network Upgrades, an amount equal to (1) the current taxes imposed on Transmission Provider (“Current Taxes”) on the excess of (a) the gross income realized by Transmission Provider as a result of payments or property transfers made by Interconnection Customer to Transmission Provider under this LGIA (without regard to any payments under this Article 5.17) (the “Gross Income Amount”) over (b) the present value of future tax deductions for depreciation that will be available as a result of such payments or property transfers (the “Present Value Depreciation Amount”), plus (2) an additional amount sufficient to permit Transmission Provider to receive and retain, after the payment of all Current Taxes, an amount equal to the net amount described in clause (1).

For this purpose, (i) Current Taxes shall be computed based on Transmission Provider's composite federal and state tax rates at the time the payments or property transfers are received and Transmission Provider will be treated as being subject to tax at the highest marginal rates in effect at that time (the “Current Tax Rate”), and (ii) the Present Value Depreciation Amount shall be

computed by discounting Transmission Provider's anticipated tax depreciation deductions as a result of such payments or property transfers by Transmission Provider's current weighted average cost of capital. Thus, the formula for calculating Interconnection Customer's liability to Transmission Owner pursuant to this Article 5.17.4 can be expressed as follows: (Current Tax Rate x (Gross Income Amount—Present Value of Tax Depreciation))/(1—Current Tax Rate). Interconnection Customer's estimated tax liability in the event taxes are imposed shall be stated in Appendix A, Interconnection Facilities, Network Upgrades and Distribution Upgrades.

5.17.5 Private Letter Ruling or Change or Clarification of Law. At Interconnection Customer's request and expense, Transmission Provider shall file with the IRS a request for a private letter ruling as to whether any property transferred or sums paid, or to be paid, by Interconnection Customer to Transmission Provider under this LGIA are subject to federal income taxation. Interconnection Customer will prepare the initial draft of the request for a private letter ruling, and will certify under penalties of perjury that all facts represented in such request are true and accurate to the best of Interconnection Customer's knowledge. Transmission Provider and Interconnection Customer shall cooperate in good faith with respect to the submission of such request.

Transmission Provider shall keep Interconnection Customer fully informed of the status of such request for a private letter ruling and shall execute either a privacy act waiver or a limited power of attorney, in a form acceptable to the IRS, that authorizes Interconnection Customer to participate in all discussions with the IRS regarding such request for a private letter ruling. Transmission Provider shall allow Interconnection Customer to attend all meetings with IRS officials about the request and shall permit Interconnection Customer to prepare the initial drafts of any follow-up letters in connection with the request.

5.17.6 Subsequent Taxable Events. If, within 10 years from the date on which the relevant Transmission Provider's Interconnection Facilities are placed in service, (i) Interconnection Customer Breaches the covenants contained in Article 5.17.2, (ii) a "disqualification event" occurs within the meaning of IRS Notice 88–129, or (iii) this LGIA terminates and Transmission Provider retains ownership of the Interconnection Facilities and Network Upgrades, Interconnection Customer shall pay a tax gross-up for the cost consequences of any current tax liability imposed on Transmission Provider, calculated using the methodology described in Article 5.17.4 and in accordance with IRS Notice 90–60.

5.17.7 Contests. In the event any Governmental Authority determines that Transmission Provider's receipt of payments or property constitutes income that is subject to taxation, Transmission Provider shall notify Interconnection Customer, in writing, within thirty (30) Calendar Days of receiving notification of such determination by a Governmental Authority. Upon the timely

written request by Interconnection Customer and at Interconnection Customer's sole expense, Transmission Provider may appeal, protest, seek abatement of, or otherwise oppose such determination. Upon Interconnection Customer's written request and sole expense, Transmission Provider may file a claim for refund with respect to any taxes paid under this Article 5.17, whether or not it has received such a determination. Transmission Provider reserves the right to make all decisions with regard to the prosecution of such appeal, protest, abatement or other contest, including the selection of counsel and compromise or settlement of the claim, but Transmission Provider shall keep Interconnection Customer informed, shall consider in good faith suggestions from Interconnection Customer about the conduct of the contest, and shall reasonably permit Interconnection Customer or an Interconnection Customer representative to attend contest proceedings.

Interconnection Customer shall pay to Transmission Provider on a periodic basis, as invoiced by Transmission Provider, Transmission Provider's documented reasonable costs of prosecuting such appeal, protest, abatement or other contest. At any time during the contest, Transmission Provider may agree to a settlement either with Interconnection Customer's consent or after obtaining written advice from nationally recognized tax counsel, selected by Transmission Provider, but reasonably acceptable to Interconnection Customer, that the proposed settlement represents a reasonable settlement given the hazards of litigation. Interconnection Customer's obligation shall be based on the amount of the settlement agreed to by Interconnection Customer, or if a higher amount, so much of the settlement that is supported by the written advice from nationally recognized tax counsel selected under the terms of the preceding sentence. The settlement amount shall be calculated on a fully grossed-up basis to cover any related cost consequences of the current tax liability. Any settlement without Interconnection Customer's consent or such written advice will relieve Interconnection Customer from any obligation to indemnify Transmission Provider for the tax at issue in the contest.

5.17.8 Refund. In the event that (a) a private letter ruling is issued to Transmission Provider which holds that any amount paid or the value of any property transferred by Interconnection Customer to Transmission Provider under the terms of this LGIA is not subject to federal income taxation, (b) any legislative change or administrative announcement, notice, ruling or other determination makes it reasonably clear to Transmission Provider in good faith that any amount paid or the value of any property transferred by Interconnection Customer to Transmission Provider under the terms of this LGIA is not taxable to Transmission Provider, (c) any abatement, appeal, protest, or other contest results in a determination that any payments or transfers made by Interconnection Customer to Transmission Provider are not subject to federal income tax, or (d) if Transmission Provider receives a refund from any taxing authority for any

overpayment of tax attributable to any payment or property transfer made by Interconnection Customer to Transmission Provider pursuant to this LGIA, Transmission Provider shall promptly refund to Interconnection Customer the following:

(i) any payment made by Interconnection Customer under this Article 5.17 for taxes that is attributable to the amount determined to be non-taxable, together with interest thereon,

(ii) interest on any amounts paid by Interconnection Customer to Transmission Provider for such taxes which Transmission Provider did not submit to the taxing authority, calculated in accordance with the methodology set forth in FERC's regulations at 18 CFR 35.19a(a)(2)(iii) from the date payment was made by Interconnection Customer to the date Transmission Provider refunds such payment to Interconnection Customer, and

(iii) with respect to any such taxes paid by Transmission Provider, any refund or credit Transmission Provider receives or to which it may be entitled from any Governmental Authority, interest (or that portion thereof attributable to the payment described in clause (i), above) owed to Transmission Provider for such overpayment of taxes (including any reduction in interest otherwise payable by Transmission Provider to any Governmental Authority resulting from an offset or credit); *provided, however*, that Transmission Provider will remit such amount promptly to Interconnection Customer only after and to the extent that Transmission Provider has received a tax refund, credit or offset from any Governmental Authority for any applicable overpayment of income tax related to Transmission Provider's Interconnection Facilities.

The intent of this provision is to leave the Parties, to the extent practicable, in the event that no taxes are due with respect to any payment for Interconnection Facilities and Network Upgrades hereunder, in the same position they would have been in had no such tax payments been made.

5.17.9 Taxes Other Than Income Taxes. Upon the timely request by Interconnection Customer, and at Interconnection Customer's sole expense, Transmission Provider may appeal, protest, seek abatement of, or otherwise contest any tax (other than federal or state income tax) asserted or assessed against Transmission Provider for which Interconnection Customer may be required to reimburse Transmission Provider under the terms of this LGIA. Interconnection Customer shall pay to Transmission Provider on a periodic basis, as invoiced by Transmission Provider, Transmission Provider's documented reasonable costs of prosecuting such appeal, protest, abatement, or other contest. Interconnection Customer and Transmission Provider shall cooperate in good faith with respect to any such contest. Unless the payment of such taxes is a prerequisite to an appeal or abatement or cannot be deferred, no amount shall be payable by Interconnection Customer to Transmission Provider for such taxes until they are assessed by a final, non-appealable order by any court or agency of competent

jurisdiction. In the event that a tax payment is withheld and ultimately due and payable after appeal, Interconnection Customer will be responsible for all taxes, interest and penalties, other than penalties attributable to any delay caused by Transmission Provider.

5.17.10 Transmission Owners Who Are Not Transmission Providers. If Transmission Provider is not the same entity as the Transmission Owner, then (i) all references in this Article 5.17 to Transmission Provider shall be deemed also to refer to and to include the Transmission Owner, as appropriate, and (ii) this LGIA shall not become effective until such Transmission Owner shall have agreed in writing to assume all of the duties and obligations of Transmission Provider under this Article 5.17 of this LGIA.

5.18 Tax Status. Each Party shall cooperate with the other to maintain the other Party's tax status. Nothing in this LGIA is intended to adversely affect any Transmission Provider's tax exempt status with respect to the issuance of bonds including, but not limited to, Local Furnishing Bonds.

5.19 Modification.

5.19.1 General. Either Party may undertake modifications to its facilities. If a Party plans to undertake a modification that reasonably may be expected to affect the other Party's facilities, that Party shall provide to the other Party sufficient information regarding such modification so that the other Party may evaluate the potential impact of such modification prior to commencement of the work. Such information shall be deemed to be confidential hereunder and shall include information concerning the timing of such modifications and whether such modifications are expected to interrupt the flow of electricity from the Large Generating Facility. The Party desiring to perform such work shall provide the relevant drawings, plans, and specifications to the other Party at least ninety (90) Calendar Days in advance of the commencement of the work or such shorter period upon which the Parties may agree, which agreement shall not unreasonably be withheld, conditioned or delayed.

In the case of Large Generating Facility modifications that do not require Interconnection Customer to submit an Interconnection Request, Transmission Provider shall provide, within thirty (30) Calendar Days (or such other time as the Parties may agree), an estimate of any additional modifications to the Transmission System, Transmission Provider's Interconnection Facilities or Network Upgrades necessitated by such Interconnection Customer modification and a good faith estimate of the costs thereof.

5.19.2 Standards. Any additions, modifications, or replacements made to a Party's facilities shall be designed, constructed and operated in accordance with this LGIA and Good Utility Practice.

5.19.3 Modification Costs. Interconnection Customer shall not be directly assigned for the costs of any additions, modifications, or replacements that Transmission Provider makes to

Transmission Provider's Interconnection Facilities or the Transmission System to facilitate the interconnection of a third party to Transmission Provider's Interconnection Facilities or the Transmission System, or to provide transmission service to a third party under Transmission Provider's Tariff. Interconnection Customer shall be responsible for the costs of any additions, modifications, or replacements to Interconnection Customer's Interconnection Facilities that may be necessary to maintain or upgrade such Interconnection Customer's Interconnection Facilities consistent with Applicable Laws and Regulations, Applicable Reliability Standards or Good Utility Practice.

Article 6. Testing and Inspection

6.1 Pre-Commercial Operation Date Testing and Modifications. Prior to the Commercial Operation Date, Transmission Provider shall test Transmission Provider's Interconnection Facilities and Network Upgrades and Interconnection Customer shall test the Large Generating Facility and Interconnection Customer's Interconnection Facilities to ensure their safe and reliable operation. Similar testing may be required after initial operation. Each Party shall make any modifications to its facilities that are found to be necessary as a result of such testing. Interconnection Customer shall bear the cost of all such testing and modifications. Interconnection Customer shall generate test energy at the Large Generating Facility only if it has arranged for the delivery of such test energy.

6.2 Post-Commercial Operation Date Testing and Modifications. Each Party shall at its own expense perform routine inspection and testing of its facilities and equipment in accordance with Good Utility Practice as may be necessary to ensure the continued interconnection of the Large Generating Facility with the Transmission System in a safe and reliable manner. Each Party shall have the right, upon advance written notice, to require reasonable additional testing of the other Party's facilities, at the requesting Party's expense, as may be in accordance with Good Utility Practice.

6.3 Right to Observe Testing. Each Party shall notify the other Party in advance of its performance of tests of its Interconnection Facilities. The other Party has the right, at its own expense, to observe such testing.

6.4 Right to Inspect. Each Party shall have the right, but shall have no obligation to: (i) observe the other Party's tests and/or inspection of any of its System Protection Facilities and other protective equipment, including Power System Stabilizers; (ii) review the settings of the other Party's System Protection Facilities and other protective equipment; and (iii) review the other Party's maintenance records relative to the Interconnection Facilities, the System Protection Facilities and other protective equipment. A Party may exercise these rights from time to time as it deems necessary upon reasonable notice to the other Party. The exercise or non-exercise by a Party of any such rights shall not be construed as an endorsement or confirmation of any element

or condition of the Interconnection Facilities or the System Protection Facilities or other protective equipment or the operation thereof, or as a warranty as to the fitness, safety, desirability, or reliability of same. Any information that a Party obtains through the exercise of any of its rights under this Article 6.4 shall be deemed to be Confidential Information and treated pursuant to Article 22 of this LGIA.

Article 7. Metering

7.1 General. Each Party shall comply with the [Applicable Reliability Council] *Electric Reliability Organization* requirements. Unless otherwise agreed by the Parties, Transmission Provider shall install Metering Equipment at the Point of Interconnection prior to any operation of the Large Generating Facility and shall own, operate, test and maintain such Metering Equipment. Power flows to and from the Large Generating Facility shall be measured at or, at Transmission Provider's option, compensated to, the Point of Interconnection. Transmission Provider shall provide metering quantities, in analog and/or digital form, to Interconnection Customer upon request. Interconnection Customer shall bear all reasonable documented costs associated with the purchase, installation, operation, testing and maintenance of the Metering Equipment.

7.2 Check Meters. Interconnection Customer, at its option and expense, may install and operate, on its premises and on its side of the Point of Interconnection, one or more check meters to check Transmission Provider's meters. Such check meters shall be for check purposes only and shall not be used for the measurement of power flows for purposes of this LGIA, except as provided in Article 7.4 below. The check meters shall be subject at all reasonable times to inspection and examination by Transmission Provider or its designee. The installation, operation and maintenance thereof shall be performed entirely by Interconnection Customer in accordance with Good Utility Practice.

7.3 Standards. Transmission Provider shall install, calibrate, and test revenue quality Metering Equipment in accordance with applicable ANSI standards.

7.4 Testing of Metering Equipment. Transmission Provider shall inspect and test all Transmission Provider-owned Metering Equipment upon installation and at least once every two (2) years thereafter. If requested to do so by Interconnection Customer, Transmission Provider shall, at Interconnection Customer's expense, inspect or test Metering Equipment more frequently than every two (2) years. Transmission Provider shall give reasonable notice of the time when any inspection or test shall take place, and Interconnection Customer may have representatives present at the test or inspection. If at any time Metering Equipment is found to be inaccurate or defective, it shall be adjusted, repaired or replaced at Interconnection Customer's expense, in order to provide accurate metering, unless the inaccuracy or defect is due to Transmission Provider's failure to maintain, then Transmission Provider shall pay. If Metering Equipment fails to register,

or if the measurement made by Metering Equipment during a test varies by more than two percent from the measurement made by the standard meter used in the test, Transmission Provider shall adjust the measurements by correcting all measurements for the period during which Metering Equipment was in error by using Interconnection Customer's check meters, if installed. If no such check meters are installed or if the period cannot be reasonably ascertained, the adjustment shall be for the period immediately preceding the test of the Metering Equipment equal to one-half the time from the date of the last previous test of the Metering Equipment.

7.5 Metering Data. At Interconnection Customer's expense, the metered data shall be telemetered to one or more locations designated by Transmission Provider and one or more locations designated by Interconnection Customer. Such telemetered data shall be used, under normal operating conditions, as the official measurement of the amount of energy delivered from the Large Generating Facility to the Point of Interconnection.

Article 8. Communications

8.1 Interconnection Customer Obligations. Interconnection Customer shall maintain satisfactory operating communications with Transmission Provider's Transmission System dispatcher or representative designated by Transmission Provider. Interconnection Customer shall provide standard voice line, dedicated voice line and facsimile communications at its Large Generating Facility control room or central dispatch facility through use of either the public telephone system, or a voice communications system that does not rely on the public telephone system. Interconnection Customer shall also provide the dedicated data circuit(s) necessary to provide Interconnection Customer data to Transmission Provider as set forth in Appendix D, Security Arrangements Details. The data circuit(s) shall extend from the Large Generating Facility to the location(s) specified by Transmission Provider. Any required maintenance of such communications equipment shall be performed by Interconnection Customer. Operational communications shall be activated and maintained under, but not be limited to, the following events: system paralleling or separation, scheduled and unscheduled shutdowns, equipment clearances, and hourly and daily load data.

8.2 Remote Terminal Unit. Prior to the Initial Synchronization Date of the Large Generating Facility, a Remote Terminal Unit, or equivalent data collection and transfer equipment acceptable to the Parties, shall be installed by Interconnection Customer, or by Transmission Provider at Interconnection Customer's expense, to gather accumulated and instantaneous data to be telemetered to the location(s) designated by Transmission Provider through use of a dedicated point-to-point data circuit(s) as indicated in Article 8.1. The communication protocol for the data circuit(s) shall be specified by Transmission Provider. Instantaneous bi-directional analog real power and reactive power flow

information must be telemetered directly to the location(s) specified by Transmission Provider.

Each Party will promptly advise the other Party if it detects or otherwise learns of any metering, telemetry or communications equipment errors or malfunctions that require the attention and/or correction by the other Party. The Party owning such equipment shall correct such error or malfunction as soon as reasonably feasible.

8.3 No Annexation. Any and all equipment placed on the premises of a Party shall be and remain the property of the Party providing such equipment regardless of the mode and manner of annexation or attachment to real property, unless otherwise mutually agreed by the Parties.

8.4 Provision of Data from a Variable Energy Resource. The Interconnection Customer whose Generating Facility *contains at least one*[is] Variable Energy Resource shall provide meteorological and forced outage data to the Transmission Provider to the extent necessary for the Transmission Provider's development and deployment of power production forecasts for that class of Variable Energy Resources. The Interconnection Customer with a Variable Energy Resource having wind as the energy source, at a minimum, will be required to provide the Transmission Provider with site-specific meteorological data including: temperature, wind speed, wind direction, and atmospheric pressure. The Interconnection Customer with a Variable Energy Resource having solar as the energy source, at a minimum, will be required to provide the Transmission Provider with site-specific meteorological data including: temperature, atmospheric pressure, and irradiance. The Transmission Provider and Interconnection Customer whose Generating Facility *contains* [is] a Variable Energy Resource shall mutually agree to any additional meteorological data that are required for the development and deployment of a power production forecast. The Interconnection Customer whose Generating Facility *contains* [is] a Variable Energy Resource also shall submit data to the Transmission Provider regarding all forced outages to the extent necessary for the Transmission Provider's development and deployment of power production forecasts for that class of Variable Energy Resources. The exact specifications of the meteorological and forced outage data to be provided by the Interconnection Customer to the Transmission Provider, including the frequency and timing of data submittals, shall be made taking into account the size and configuration of the Variable Energy Resource, its characteristics, location, and its importance in maintaining generation resource adequacy and transmission system reliability in its area. All requirements for meteorological and forced outage data must be commensurate with the power production forecasting employed by the Transmission Provider. Such requirements for meteorological and forced outage data are set forth in Appendix C, Interconnection Details, of this LGIA, as they may change from time to time.

Article 9. Operations

9.1 General. Each Party shall comply with the [Applicable Reliability Council] *Electric Reliability Organization* requirements. Each Party shall provide to the other Party all information that may reasonably be required by the other Party to comply with Applicable Laws and Regulations and Applicable Reliability Standards.

9.2 [Control Area] *Balancing Authority Area* Notification. At least three months before Initial Synchronization Date, Interconnection Customer shall notify Transmission Provider in writing of the [Control Area] *Balancing Authority Area* in which the Large Generating Facility will be located. If Interconnection Customer elects to locate the Large Generating Facility in a [Control Area] *Balancing Authority Area* other than the [Control Area] *Balancing Authority Area* in which the Large Generating Facility is physically located, and if permitted to do so by the relevant transmission tariffs, all necessary arrangements, including but not limited to those set forth in Article 7 and Article 8 of this LGIA, and remote [Control Area] *Balancing Authority Area* generator interchange agreements, if applicable, and the appropriate measures under such agreements, shall be executed and implemented prior to the placement of the Large Generating Facility in the other [Control Area] *Balancing Authority Area*.

9.3 Transmission Provider Obligations. Transmission Provider shall cause the Transmission System and Transmission Provider's Interconnection Facilities to be operated, maintained and controlled in a safe and reliable manner and in accordance with this LGIA. Transmission Provider may provide operating instructions to Interconnection Customer consistent with this LGIA and Transmission Provider's operating protocols and procedures as they may change from time to time. Transmission Provider will consider changes to its operating protocols and procedures proposed by Interconnection Customer.

9.4 Interconnection Customer Obligations. Interconnection Customer shall at its own expense operate, maintain and control the Large Generating Facility and Interconnection Customer's Interconnection Facilities in a safe and reliable manner and in accordance with this LGIA. Interconnection Customer shall operate the Large Generating Facility and Interconnection Customer's Interconnection Facilities in accordance with all applicable requirements of the [Control Area] *Balancing Authority Area* of which it is part, as such requirements are set forth in Appendix C, Interconnection Details, of this LGIA. Appendix C, Interconnection Details, will be modified to reflect changes to the requirements as they may change from time to time. Either Party may request that the other Party provide copies of the requirements set forth in Appendix C, Interconnection Details, of this LGIA.

9.5 Start-Up and Synchronization. Consistent with the Parties' mutually acceptable procedures, Interconnection Customer is responsible for the proper synchronization of the Large Generating

Facility to Transmission Provider's Transmission System.

9.6 Reactive Power and Primary Frequency Response.

9.6.1 Power Factor Design Criteria.

9.6.1.1 Synchronous Generation.

Interconnection Customer shall design the Large Generating Facility to maintain a composite power delivery at continuous rated power output at the Point of Interconnection at a power factor within the range of 0.95 leading to 0.95 lagging, unless [the] Transmission Provider has established different requirements that apply to all synchronous generators in the [Control Area] *Balancing Authority Area* on a comparable basis.

9.6.1.2 Non-Synchronous Generation. Interconnection Customer shall design the Large Generating Facility to maintain a composite power delivery at continuous rated power output at the high-side of the generator substation at a power factor within the range of 0.95 leading to 0.95 lagging, unless [the] Transmission Provider has established a different power factor range that applies to all non-synchronous generators in the [Control Area] *Balancing Authority Area* on a comparable basis. This power factor range standard shall be dynamic and can be met using, for example, power electronics designed to supply this level of reactive capability (taking into account any limitations due to voltage level, real power output, etc.) or fixed and switched capacitors, or a combination of the two. This requirement shall only apply to newly interconnecting non-synchronous generators that have not yet executed a Facilities Study Agreement as of the effective date of the Final rule establishing this requirement (Order No. 827).

9.6.2 Voltage Schedules. Once Interconnection Customer has synchronized the Large Generating Facility with the Transmission System, Transmission Provider shall require Interconnection Customer to operate the Large Generating Facility to produce or absorb reactive power within the design limitations of the Large Generating Facility set forth in Article 9.6.1 (Power Factor Design Criteria). Transmission Provider's voltage schedules shall treat all sources of reactive power in the [Control Area] *Balancing Authority Area* in an equitable and not unduly discriminatory manner. Transmission Provider shall exercise Reasonable Efforts to provide Interconnection Customer with such schedules at least one (1) day in advance, and may make changes to such schedules as necessary to maintain the reliability of the Transmission System. Interconnection Customer shall operate the Large Generating Facility to maintain the specified output voltage or power factor at the Point of Interconnection within the design limitations of the Large Generating Facility set forth in Article 9.6.1 (Power Factor Design Criteria). If Interconnection Customer is unable to maintain the specified voltage or power factor, it shall promptly notify the System Operator.

9.6.2.1 Voltage Regulators. Whenever the Large Generating Facility is operated in parallel with the Transmission System and voltage regulators are capable of operation,

Interconnection Customer shall operate the Large Generating Facility with its voltage regulators in automatic operation. If the Large Generating Facility's voltage regulators are not capable of such automatic operation, Interconnection Customer shall immediately notify Transmission Provider's system operator, or its designated representative, and ensure that such Large Generating Facility's reactive power production or absorption (measured in MVARs) are within the design capability of the Large Generating Facility's generating unit(s) and steady state stability limits. Interconnection Customer shall not cause its Large Generating Facility to disconnect automatically or instantaneously from the Transmission System or trip any generating unit comprising the Large Generating Facility for an under or over frequency condition unless the abnormal frequency condition persists for a time period beyond the limits set forth in ANSI/IEEE Standard C37.106, or such other standard as applied to other generators in the [Control Area] *Balancing Authority Area* on a comparable basis.

9.6.3 Payment for Reactive Power. Transmission Provider is required to pay Interconnection Customer for reactive power that Interconnection Customer provides or absorbs from the Large Generating Facility when Transmission Provider requests Interconnection Customer to operate its Large Generating Facility outside the range specified in Article 9.6.1, provided that if Transmission Provider pays its own or affiliated generators for reactive power service within the specified range, it must also pay Interconnection Customer. Payments shall be pursuant to Article 11.6 or such other agreement to which the Parties have otherwise agreed.

9.6.4 Primary Frequency Response. Interconnection Customer shall ensure the primary frequency response capability of its Large Generating Facility by installing, maintaining, and operating a functioning governor or equivalent controls. The term "functioning governor or equivalent controls" as used herein shall mean the required hardware and/or software that provides frequency responsive real power control with the ability to sense changes in system frequency and autonomously adjust the Large Generating Facility's real power output in accordance with the droop and deadband parameters and in the direction needed to correct frequency deviations. Interconnection Customer is required to install a governor or equivalent controls with the capability of operating: (1) with a maximum 5 percent droop and ± 0.036 Hz deadband; or (2) in accordance with the relevant droop, deadband, and timely and sustained response settings from an approved [NERC] *Electric Reliability Organization* [R]reliability [S]standard providing for equivalent or more stringent parameters. The droop characteristic shall be: (1) based on the nameplate capacity of the Large Generating Facility, and shall be linear in the range of frequencies between 59 to 61 Hz that are outside of the deadband parameter; or (2) based on an approved [NERC] *Electric Reliability Organization* [R]reliability [S]standard providing for an equivalent or more stringent

parameter. The deadband parameter shall be: the range of frequencies above and below nominal (60 Hz) in which the governor or equivalent controls is not expected to adjust the Large Generating Facility's real power output in response to frequency deviations. The deadband shall be implemented: (1) without a step to the droop curve, that is, once the frequency deviation exceeds the deadband parameter, the expected change in the Large Generating Facility's real power output in response to frequency deviations shall start from zero and then increase (for under-frequency deviations) or decrease (for over-frequency deviations) linearly in proportion to the magnitude of the frequency deviation; or (2) in accordance with an approved [NERC] *Electric Reliability Organization* [R]reliability [S]standard providing for an equivalent or more stringent parameter. Interconnection Customer shall notify Transmission Provider that the primary frequency response capability of the Large Generating Facility has been tested and confirmed during commissioning. Once Interconnection Customer has synchronized the Large Generating Facility with the Transmission System, Interconnection Customer shall operate the Large Generating Facility consistent with the provisions specified in Sections 9.6.4.1 and 9.6.4.2 of this Agreement. The primary frequency response requirements contained herein shall apply to both synchronous and non-synchronous Large Generating Facilities.

9.6.4.1 Governor or Equivalent Controls. Whenever the Large Generating Facility is operated in parallel with the Transmission System, Interconnection Customer shall operate the Large Generating Facility with its governor or equivalent controls in service and responsive to frequency. Interconnection Customer shall: (1) in coordination with Transmission Provider and/or the relevant balancing authority, set the deadband parameter to: (1) a maximum of ± 0.036 Hz and set the droop parameter to a maximum of 5 percent; or (2) implement the relevant droop and deadband settings from an approved [NERC] *Electric Reliability Organization* [R]reliability [S]standard that provides for equivalent or more stringent parameters. Interconnection Customer shall be required to provide the status and settings of the governor or equivalent controls to Transmission Provider and/or the relevant balancing authority upon request. If Interconnection Customer needs to operate the Large Generating Facility with its governor or equivalent controls not in service, Interconnection Customer shall immediately notify Transmission Provider and the relevant balancing authority, and provide both with the following information: (1) the operating status of the governor or equivalent controls (*i.e.*, whether it is currently out of service or when it will be taken out of service); (2) the reasons for removing the governor or equivalent controls from service; and (3) a reasonable estimate of when the governor or equivalent controls will be returned to service. Interconnection Customer shall make Reasonable Efforts to return its governor or equivalent controls into service as soon as practicable. Interconnection Customer shall make

Reasonable Efforts to keep outages of the Large Generating Facility's governor or equivalent controls to a minimum whenever the Large Generating Facility is operated in parallel with the Transmission System.

9.6.4.2 **Timely and Sustained Response.** Interconnection Customer shall ensure that the Large Generating Facility's real power response to sustained frequency deviations outside of the deadband setting is automatically provided and shall begin immediately after frequency deviates outside of the deadband, and to the extent the Large Generating Facility has operating capability in the direction needed to correct the frequency deviation. Interconnection Customer shall not block or otherwise inhibit the ability of the governor or equivalent controls to respond and shall ensure that the response is not inhibited, except under certain operational constraints including, but not limited to, ambient temperature limitations, physical energy limitations, outages of mechanical equipment, or regulatory requirements. The Large Generating Facility shall sustain the real power response at least until system frequency returns to a value within the deadband setting of the governor or equivalent controls. A Commission-approved [R]eliability [S]tandard with equivalent or more stringent requirements shall supersede the above requirements.

9.6.4.3 **Exemptions.** Large Generating Facilities that are regulated by the United States Nuclear Regulatory Commission shall be exempt from Sections 9.6.4, 9.6.4.1, and 9.6.4.2 of this Agreement. Large Generating Facilities that are behind the meter generation that is sized-to-load (*i.e.*, the thermal load and the generation are near-balanced in real-time operation and the generation is primarily controlled to maintain the unique thermal, chemical, or mechanical output necessary for the operating requirements of its host facility) shall be required to install primary frequency response capability in accordance with the droop and deadband capability requirements specified in Section 9.6.4, but shall be otherwise exempt from the operating requirements in Sections 9.6.4, 9.6.4.1, 9.6.4.2, and 9.6.4.4 of this Agreement.

9.6.4.4 **Electric Storage Resources.** Interconnection Customer interconnecting a *Generating Facility that contains* an electric storage resource shall establish an operating range in Appendix C of its LGIA that specifies a minimum state of charge and a maximum state of charge between which the electric storage resource will be required to provide primary frequency response consistent with the conditions set forth in Sections 9.6.4, 9.6.4.1, 9.6.4.2 and 9.6.4.3 of this Agreement. Appendix C shall specify whether the operating range is static or dynamic, and shall consider (1) the expected magnitude of frequency deviations in the interconnection; (2) the expected duration that system frequency will remain outside of the deadband parameter in the interconnection; (3) the expected incidence of frequency deviations outside of the deadband parameter in the interconnection; (4) the physical capabilities of the electric storage resource; (5) operational limitations

of the electric storage resource due to manufacturer specifications; and (6) any other relevant factors agreed to by Transmission Provider and Interconnection Customer, and in consultation with the relevant transmission owner or balancing authority as appropriate. If the operating range is dynamic, then Appendix C must establish how frequently the operating range will be reevaluated and the factors that may be considered during its reevaluation.

Interconnection Customer's electric storage resource is required to provide timely and sustained primary frequency response consistent with Section 9.6.4.2 of this Agreement when it is online and dispatched to inject electricity to the Transmission System and/or receive electricity from the Transmission System. This excludes circumstances when the electric storage resource is not dispatched to inject electricity to the Transmission System and/or dispatched to receive electricity from the Transmission System. If Interconnection Customer's electric storage resource is charging at the time of a frequency deviation outside of its deadband parameter, it is to increase (for over-frequency deviations) or decrease (for under-frequency deviations) the rate at which it is charging in accordance with its droop parameter. Interconnection Customer's electric storage resource is not required to change from charging to discharging, or vice versa, unless the response necessitated by the droop and deadband settings requires it to do so and it is technically capable of making such a transition.

9.7 Outages and Interruptions.

9.7.1 Outages.

9.7.1.1 **Outage Authority and Coordination.** Each Party may in accordance with Good Utility Practice in coordination with the other Party remove from service any of its respective Interconnection Facilities or Network Upgrades that may impact the other Party's facilities as necessary to perform maintenance or testing or to install or replace equipment. Absent an Emergency Condition, the Party scheduling a removal of such facility(ies) from service will use Reasonable Efforts to schedule such removal on a date and time mutually acceptable to the Parties. In all circumstances, any Party planning to remove such facility(ies) from service shall use Reasonable Efforts to minimize the effect on the other Party of such removal.

9.7.1.2 **Outage Schedules.** Transmission Provider shall post scheduled outages of its transmission facilities on the OASIS. Interconnection Customer shall submit its planned maintenance schedules for the Large Generating Facility to Transmission Provider for a minimum of a rolling twenty-four month period. Interconnection Customer shall update its planned maintenance schedules as necessary. Transmission Provider may request Interconnection Customer to reschedule its maintenance as necessary to maintain the reliability of the Transmission System; provided, however, adequacy of generation supply shall not be a criterion in determining Transmission System reliability. Transmission Provider shall compensate Interconnection Customer for any additional direct costs that

Interconnection Customer incurs as a result of having to reschedule maintenance, including any additional overtime, breaking of maintenance contracts or other costs above and beyond the cost Interconnection Customer would have incurred absent Transmission Provider's request to reschedule maintenance. Interconnection Customer will not be eligible to receive compensation, if during the twelve (12) months prior to the date of the scheduled maintenance, Interconnection Customer had modified its schedule of maintenance activities.

9.7.1.3 **Outage Restoration.** If an outage on a Party's Interconnection Facilities or Network Upgrades adversely affects the other Party's operations or facilities, the Party that owns or controls the facility that is out of service shall use Reasonable Efforts to promptly restore such facility(ies) to a normal operating condition consistent with the nature of the outage. The Party that owns or controls the facility that is out of service shall provide the other Party, to the extent such information is known, information on the nature of the Emergency Condition, an estimated time of restoration, and any corrective actions required. Initial verbal notice shall be followed up as soon as practicable with written notice explaining the nature of the outage.

9.7.2 **Interruption of Service.** If required by Good Utility Practice to do so, Transmission Provider may require Interconnection Customer to interrupt or reduce deliveries of electricity if such delivery of electricity could adversely affect Transmission Provider's ability to perform such activities as are necessary to safely and reliably operate and maintain the Transmission System. The following provisions shall apply to any interruption or reduction permitted under this Article 9.7.2:

9.7.2.1 The interruption or reduction shall continue only for so long as reasonably necessary under Good Utility Practice;

9.7.2.2 Any such interruption or reduction shall be made on an equitable, non-discriminatory basis with respect to all generating facilities directly connected to the Transmission System;

9.7.2.3 When the interruption or reduction must be made under circumstances which do not allow for advance notice, Transmission Provider shall notify Interconnection Customer by telephone as soon as practicable of the reasons for the curtailment, interruption, or reduction, and, if known, its expected duration. Telephone notification shall be followed by written notification as soon as practicable;

9.7.2.4 Except during the existence of an Emergency Condition, when the interruption or reduction can be scheduled without advance notice, Transmission Provider shall notify Interconnection Customer in advance regarding the timing of such scheduling and further notify Interconnection Customer of the expected duration. Transmission Provider shall coordinate with Interconnection Customer using Good Utility Practice to schedule the interruption or reduction during periods of least impact to Interconnection Customer and Transmission Provider;

9.7.2.5 The Parties shall cooperate and coordinate with each other to the extent necessary in order to restore the Large Generating Facility, Interconnection Facilities, and the Transmission System to their normal operating state, consistent with system conditions and Good Utility Practice.

9.7.3 [Under-Frequency and Over Frequency Conditions]*Ride Through Capability and Performance.* The Transmission System is designed to automatically activate a load-shed program as required by the [Applicable Reliability Council]*Electric Reliability Organization* in the event of an underfrequency system disturbance. Interconnection Customer shall implement under-frequency and over-frequency relay set points for the Large Generating Facility as required by the [Applicable Reliability Council] *Electric Reliability Organization* to ensure frequency “ride through” capability of the Transmission System. Large Generating Facility response to frequency deviations of pre-determined magnitudes, both under-frequency and over-frequency deviations, shall be studied and coordinated with Transmission Provider in accordance with Good Utility Practice. *Interconnection Customer shall also implement under-voltage and over-voltage relay set points, or equivalent electronic controls, as required by the Electric Reliability Organization to ensure voltage “ride through” capability of the Transmission System.* The term “ride through” as used herein shall mean the ability of a Large Generating Facility to stay connected to and synchronized with the Transmission System during system disturbances within a range of under-frequency, [and] over-frequency, under-voltage, and over-voltage conditions, in accordance with Good Utility Practice and consistent with any standards and guidelines that are applied to other Generating Facilities in the Balancing Authority Area on a comparable basis. *For abnormal frequency conditions and voltage conditions within the “no trip zone” defined by Reliability Standard PRC-024-3 or successor mandatory ride through reliability standards, the non-synchronous Large Generating Facility must ensure that, within any physical limitations of the Large Generating Facility, its control and protection settings are configured or set to (1) continue active power production during disturbance and post disturbance periods at pre-disturbance levels, unless providing primary frequency response or fast frequency response; (2) minimize reductions in active power and remain within dynamic voltage and current limits, if reactive power priority mode is enabled, unless providing primary frequency response or fast frequency response; (3) not artificially limit dynamic reactive power capability during disturbances; and (4) return to pre-disturbance active power levels without artificial ramp rate limits if active power is reduced, unless providing primary frequency response or fast frequency response.*

9.7.4 System Protection and Other Control Requirements.

9.7.4.1 System Protection Facilities. Interconnection Customer shall, at its expense, install, operate and maintain

System Protection Facilities as a part of the Large Generating Facility or Interconnection Customer's Interconnection Facilities.

Transmission Provider shall install at Interconnection Customer's expense any System Protection Facilities that may be required on Transmission Provider's Interconnection Facilities or the Transmission System as a result of the interconnection of the Large Generating Facility and Interconnection Customer's Interconnection Facilities.

9.7.4.2 Each Party's protection facilities shall be designed and coordinated with other systems in accordance with Good Utility Practice.

9.7.4.3 Each Party shall be responsible for protection of its facilities consistent with Good Utility Practice.

9.7.4.4 Each Party's protective relay design shall incorporate the necessary test switches to perform the tests required in Article 6. The required test switches will be placed such that they allow operation of lockout relays while preventing breaker failure schemes from operating and causing unnecessary breaker operations and/or the tripping of Interconnection Customer's units.

9.7.4.5 Each Party will test, operate and maintain System Protection Facilities in accordance with Good Utility Practice.

9.7.4.6 Prior to the In-Service Date, and again prior to the Commercial Operation Date, each Party or its agent shall perform a complete calibration test and functional trip test of the System Protection Facilities. At intervals suggested by Good Utility Practice and following any apparent malfunction of the System Protection Facilities, each Party shall perform both calibration and functional trip tests of its System Protection Facilities. These tests do not require the tripping of any in-service generation unit. These tests do, however, require that all protective relays and lockout contacts be activated.

9.7.5 Requirements for Protection. In compliance with Good Utility Practice, Interconnection Customer shall provide, install, own, and maintain relays, circuit breakers and all other devices necessary to remove any fault contribution of the Large Generating Facility to any short circuit occurring on the Transmission System not otherwise isolated by Transmission Provider's equipment, such that the removal of the fault contribution shall be coordinated with the protective requirements of the Transmission System. Such protective equipment shall include, without limitation, a disconnecting device or switch with load-interrupting capability located between the Large Generating Facility and the Transmission System at a site selected upon mutual agreement (not to be unreasonably withheld, conditioned or delayed) of the Parties. Interconnection Customer shall be responsible for protection of the Large Generating Facility and Interconnection Customer's other equipment from such conditions as negative sequence currents, over- or under-frequency, sudden load rejection, over- or under-voltage, and generator loss-of-field. Interconnection Customer shall be solely responsible to disconnect the Large Generating Facility and Interconnection Customer's other equipment

if conditions on the Transmission System could adversely affect the Large Generating Facility.

9.7.6 Power Quality. Neither Party's facilities shall cause excessive voltage flicker nor introduce excessive distortion to the sinusoidal voltage or current waves as defined by ANSI Standard C84.1-1989, in accordance with IEEE Standard 519, or any applicable superseding electric industry standard. In the event of a conflict between ANSI Standard C84.1-1989, or any applicable superseding electric industry standard, ANSI Standard C84.1-1989, or the applicable superseding electric industry standard, shall control.

9.8 Switching and Tagging Rules. Each Party shall provide the other Party a copy of its switching and tagging rules that are applicable to the other Party's activities. Such switching and tagging rules shall be developed on a non-discriminatory basis. The Parties shall comply with applicable switching and tagging rules, as amended from time to time, in obtaining clearances for work or for switching operations on equipment.

9.9 Use of Interconnection Facilities by Third Parties.

9.9.1 Purpose of Interconnection Facilities. Except as may be required by Applicable Laws and Regulations, or as otherwise agreed to among the Parties, the Interconnection Facilities shall be constructed for the sole purpose of interconnecting the Large Generating Facility to the Transmission System and shall be used for no other purpose.

9.9.2 Third Party Users. If required by Applicable Laws and Regulations or if the Parties mutually agree, such agreement not to be unreasonably withheld, to allow one or more third parties to use Transmission Provider's Interconnection Facilities, or any part thereof, Interconnection Customer will be entitled to compensation for the capital expenses it incurred in connection with the Interconnection Facilities based upon the pro rata use of the Interconnection Facilities by Transmission Provider, all third party users, and Interconnection Customer, in accordance with Applicable Laws and Regulations or upon some other mutually agreed upon methodology. In addition, cost responsibility for ongoing costs, including operation and maintenance costs associated with the Interconnection Facilities, will be allocated between Interconnection Customer and any third party users based upon the pro rata use of the Interconnection Facilities by Transmission Provider, all third party users, and Interconnection Customer, in accordance with Applicable Laws and Regulations or upon some other mutually agreed upon methodology. If the issue of such compensation or allocation cannot be resolved through such negotiations, it shall be submitted to FERC for resolution.

9.10 Disturbance Analysis Data Exchange. The Parties will cooperate with one another in the analysis of disturbances to either the Large Generating Facility or Transmission Provider's Transmission System by gathering and providing access to any information relating to any disturbance, including information from oscillography, protective

relay targets, breaker operations and sequence of events records, and any disturbance information required by Good Utility Practice.

Article 10. Maintenance

10.1 Transmission Provider Obligations. Transmission Provider shall maintain the Transmission System and Transmission Provider's Interconnection Facilities in a safe and reliable manner and in accordance with this LGIA.

10.2 Interconnection Customer Obligations. Interconnection Customer shall maintain the Large Generating Facility and Interconnection Customer's Interconnection Facilities in a safe and reliable manner and in accordance with this LGIA.

10.3 Coordination. The Parties shall confer regularly to coordinate the planning, scheduling and performance of preventive and corrective maintenance on the Large Generating Facility and the Interconnection Facilities.

10.4 Secondary Systems. Each Party shall cooperate with the other in the inspection, maintenance, and testing of control or power circuits that operate below 600 volts, AC or DC, including, but not limited to, any hardware, control or protective devices, cables, conductors, electric raceways, secondary equipment panels, transducers, batteries, chargers, and voltage and current transformers that directly affect the operation of a Party's facilities and equipment which may reasonably be expected to impact the other Party. Each Party shall provide advance notice to the other Party before undertaking any work on such circuits, especially on electrical circuits involving circuit breaker trip and close contacts, current transformers, or potential transformers.

10.5 Operating and Maintenance Expenses. Subject to the provisions herein addressing the use of facilities by others, and except for operations and maintenance expenses associated with modifications made for providing interconnection or transmission service to a third party and such third party pays for such expenses, Interconnection Customer shall be responsible for all reasonable expenses including overheads, associated with: (1) owning, operating, maintaining, repairing, and replacing Interconnection Customer's Interconnection Facilities; and (2) operation, maintenance, repair and replacement of Transmission Provider's Interconnection Facilities.

Article 11. Performance Obligation

11.1 Interconnection Customer Interconnection Facilities. Interconnection Customer shall design, procure, construct, install, own and/or control Interconnection Customer Interconnection Facilities described in Appendix A, Interconnection Facilities, Network Upgrades and Distribution Upgrades, at its sole expense.

11.2 Transmission Provider's Interconnection Facilities. Transmission Provider or Transmission Owner shall design, procure, construct, install, own and/or control the Transmission Provider's Interconnection Facilities described in Appendix A, Interconnection Facilities, Network Upgrades and Distribution

Upgrades, at the sole expense of the Interconnection Customer.

11.3 Network Upgrades and Distribution Upgrades. Transmission Provider or Transmission Owner shall design, procure, construct, install, and own the Network Upgrades and Distribution Upgrades described in Appendix A, Interconnection Facilities, Network Upgrades and Distribution Upgrades. [The]Interconnection Customer shall be responsible for all costs related to Distribution Upgrades. Unless Transmission Provider or Transmission Owner elects to fund the capital for the Network Upgrades, they shall be solely funded by Interconnection Customer.

11.4 Transmission Credits.

11.4.1 Repayment of Amounts Advanced for Network Upgrades. Interconnection Customer shall be entitled to a cash repayment, equal to the total amount paid to Transmission Provider and Affected System Operator, if any, for the Network Upgrades, including any tax gross-up or other tax-related payments associated with Network Upgrades, and not refunded to Interconnection Customer pursuant to Article 5.17.8 or otherwise, to be paid to Interconnection Customer on a dollar-for-dollar basis for the non-usage sensitive portion of transmission charges, as payments are made under Transmission Provider's Tariff and Affected System's Tariff for transmission services with respect to the Large Generating Facility. Any repayment shall include interest calculated in accordance with the methodology set forth in FERC's regulations at 18 CFR 35.19(a)(2)(iii) from the date of any payment for Network Upgrades through the date on which the Interconnection Customer receives a repayment of such payment pursuant to this subparagraph. Interconnection Customer may assign such repayment rights to any person.

Notwithstanding the foregoing, Interconnection Customer, Transmission Provider, and Affected System Operator may adopt any alternative payment schedule that is mutually agreeable so long as Transmission Provider and Affected System Operator take one of the following actions no later than five years from the Commercial Operation Date: (1) return to Interconnection Customer any amounts advanced for Network Upgrades not previously repaid, or (2) declare in writing that Transmission Provider or Affected System Operator will continue to provide payments to Interconnection Customer on a dollar-for-dollar basis for the non-usage sensitive portion of transmission charges, or develop an alternative schedule that is mutually agreeable and provides for the return of all amounts advanced for Network Upgrades not previously repaid; however, full reimbursement shall not extend beyond twenty (20) years from the Commercial Operation Date.

If the Large Generating Facility fails to achieve commercial operation, but it or another Generating Facility is later constructed and makes use of the Network Upgrades, Transmission Provider and Affected System Operator shall at that time reimburse Interconnection Customer for the amounts advanced for the Network Upgrades. Before any such reimbursement can occur,

the Interconnection Customer, or the entity that ultimately constructs the Generating Facility, if different, is responsible for identifying the entity to which reimbursement must be made.

11.4.2 Special Provisions for Affected Systems. Unless Transmission Provider provides, under the LGIA, for the repayment of amounts advanced to Affected System Operator for Network Upgrades, Interconnection Customer and Affected System Operator shall enter into an agreement that provides for such repayment. The agreement shall specify the terms governing payments to be made by Interconnection Customer to the Affected System Operator as well as the repayment by the Affected System Operator.

11.4.3 Notwithstanding any other provision of this LGIA, nothing herein shall be construed as relinquishing or foreclosing any rights, including but not limited to firm transmission rights, capacity rights, transmission congestion rights, or transmission credits, that Interconnection Customer, shall be entitled to, now or in the future under any other agreement or tariff as a result of, or otherwise associated with, the transmission capacity, if any, created by the Network Upgrades, including the right to obtain cash reimbursements or transmission credits for transmission service that is not associated with the Large Generating Facility.

11.5 Provision of Security. At least thirty (30) Calendar Days prior to the commencement of the procurement, installation, or construction of a discrete portion of a Transmission Provider's Interconnection Facilities, Network Upgrades, or Distribution Upgrades, Interconnection Customer shall provide Transmission Provider, at Interconnection Customer's option, a guarantee, a surety bond, letter of credit or other form of security that is reasonably acceptable to Transmission Provider and is consistent with the Uniform Commercial Code of the jurisdiction identified in Article 14.2.1. Such security for payment, *as specified in Appendix B of this LGIA*, shall be in an amount sufficient to cover the costs for constructing, procuring and installing the applicable portion of Transmission Provider's Interconnection Facilities, Network Upgrades, or Distribution Upgrades and shall be reduced on a dollar-for-dollar basis for payments made to Transmission Provider for these purposes. *Transmission Provider must use the LGIA Deposit required in Section 11.3 of the LGIP before requiring Interconnection Customer to submit security in addition to that LGIA Deposit. Transmission Provider must specify, in Appendix B of this LGIA, the dates for which Interconnection Customer must provide additional security for construction of each discrete portion of Transmission Provider's Interconnection Facilities, Network Upgrades, or Distribution Upgrades and Interconnection Customer must provide such additional security.*

In addition:

11.5.1 The guarantee must be made by an entity that meets the creditworthiness requirements of Transmission Provider, and contain terms and conditions that guarantee payment of any amount that may be due from

Interconnection Customer, up to an agreed-to maximum amount.

11.5.2 The letter of credit must be issued by a financial institution reasonably acceptable to Transmission Provider and must specify a reasonable expiration date.

11.5.3 The surety bond must be issued by an insurer reasonably acceptable to Transmission Provider and must specify a reasonable expiration date.

11.6 Interconnection Customer Compensation. If Transmission Provider requests or directs Interconnection Customer to provide a service pursuant to Articles 9.6.3 (Payment for Reactive Power), or 13.5.1 of this LGIA, Transmission Provider shall compensate Interconnection Customer in accordance with Interconnection Customer's applicable rate schedule then in effect unless the provision of such service(s) is subject to an RTO or ISO FERC-approved rate schedule. Interconnection Customer shall serve Transmission Provider or RTO or ISO with any filing of a proposed rate schedule at the time of such filing with FERC. To the extent that no rate schedule is in effect at the time the Interconnection Customer is required to provide or absorb any Reactive Power under this LGIA, Transmission Provider agrees to compensate Interconnection Customer in such amount as would have been due Interconnection Customer had the rate schedule been in effect at the time service commenced; provided, however, that such rate schedule must be filed at FERC or other appropriate Governmental Authority within sixty (60) Calendar Days of the commencement of service.

11.6.1 Interconnection Customer Compensation for Actions During Emergency Condition. Transmission Provider or RTO or ISO shall compensate Interconnection Customer for its provision of real and reactive power and other Emergency Condition services that Interconnection Customer provides to support the Transmission System during an Emergency Condition in accordance with Article 11.6.

Article 12. Invoice

12.1 General. Each Party shall submit to the other Party, on a monthly basis, invoices of amounts due for the preceding month. Each invoice shall state the month to which the invoice applies and fully describe the services and equipment provided. The Parties may discharge mutual debts and payment obligations due and owing to each other on the same date through netting, in which case all amounts a Party owes to the other Party under this LGIA, including interest payments or credits, shall be netted so that only the net amount remaining due shall be paid by the owing Party.

12.2 Final Invoice. Within six months after completion of the construction of Transmission Provider's Interconnection Facilities and the Network Upgrades, Transmission Provider shall provide an invoice of the final cost of the construction of Transmission Provider's Interconnection Facilities and the Network Upgrades and shall set forth such costs in sufficient detail to enable Interconnection Customer to compare the actual costs with the estimates and to ascertain deviations, if any, from the

cost estimates. Transmission Provider shall refund to Interconnection Customer any amount by which the actual payment by Interconnection Customer for estimated costs exceeds the actual costs of construction within thirty (30) Calendar Days of the issuance of such final construction invoice.

12.3 Payment. Invoices shall be rendered to the paying Party at the address specified in Appendix F. The Party receiving the invoice shall pay the invoice within thirty (30) Calendar Days of receipt. All payments shall be made in immediately available funds payable to the other Party, or by wire transfer to a bank named and account designated by the invoicing Party. Payment of invoices by either Party will not constitute a waiver of any rights or claims either Party may have under this LGIA.

12.4 Disputes. In the event of a billing dispute between Transmission Provider and Interconnection Customer, Transmission Provider shall continue to provide Interconnection Service under this LGIA as long as Interconnection Customer: (i) continues to make all payments not in dispute; and (ii) pays to Transmission Provider or into an independent escrow account the portion of the invoice in dispute, pending resolution of such dispute. If Interconnection Customer fails to meet these two requirements for continuation of service, then Transmission Provider may provide notice to Interconnection Customer of a Default pursuant to Article 17. Within thirty (30) Calendar Days after the resolution of the dispute, the Party that owes money to the other Party shall pay the amount due with interest calculated in accord with the methodology set forth in FERC's regulations at 18 CFR 35.19a(a)(2)(iii).

Article 13. Emergencies

13.1 Definition. "Emergency Condition" shall mean a condition or situation: (i) that in the judgment of the Party making the claim is imminently likely to endanger life or property; or (ii) that, in the case of Transmission Provider, is imminently likely (as determined in a non-discriminatory manner) to cause a material adverse effect on the security of, or damage to the Transmission System, Transmission Provider's Interconnection Facilities or the Transmission Systems of others to which the Transmission System is directly connected; or (iii) that, in the case of Interconnection Customer, is imminently likely (as determined in a non-discriminatory manner) to cause a material adverse effect on the security of, or damage to, the Large Generating Facility or Interconnection Customer's Interconnection Facilities' System restoration and black start shall be considered Emergency Conditions; provided, that Interconnection Customer is not obligated by this LGIA to possess black start capability.

13.2 Obligations. Each Party shall comply with the Emergency Condition procedures of the applicable ISO/RTO, [NERC,] the [Applicable Reliability Council] *Electric Reliability Organization*, Applicable Laws and Regulations, and any emergency procedures agreed to by the Joint Operating Committee.

13.3 Notice. Transmission Provider shall notify Interconnection Customer promptly when it becomes aware of an Emergency Condition that affects Transmission Provider's Interconnection Facilities or the Transmission System that may reasonably be expected to affect Interconnection Customer's operation of the Large Generating Facility or Interconnection Customer's Interconnection Facilities. Interconnection Customer shall notify Transmission Provider promptly when it becomes aware of an Emergency Condition that affects the Large Generating Facility or Interconnection Customer's Interconnection Facilities that may reasonably be expected to affect the Transmission System or Transmission Provider's Interconnection Facilities. To the extent information is known, the notification shall describe the Emergency Condition, the extent of the damage or deficiency, the expected effect on the operation of Interconnection Customer's or Transmission Provider's facilities and operations, its anticipated duration and the corrective action taken and/or to be taken. The initial notice shall be followed as soon as practicable with written notice.

13.4 Immediate Action. Unless, in Interconnection Customer's reasonable judgment, immediate action is required, Interconnection Customer shall obtain the consent of Transmission Provider, such consent to not be unreasonably withheld, prior to performing any manual switching operations at the Large Generating Facility or Interconnection Customer's Interconnection Facilities in response to an Emergency Condition either declared by Transmission Provider or otherwise regarding the Transmission System.

13.5 Transmission Provider Authority.

13.5.1 General. Transmission Provider may take whatever actions or inactions with regard to the Transmission System or Transmission Provider's Interconnection Facilities it deems necessary during an Emergency Condition in order to (i) preserve public health and safety, (ii) preserve the reliability of the Transmission System or Transmission Provider's Interconnection Facilities, (iii) limit or prevent damage, and (iv) expedite restoration of service.

Transmission Provider shall use Reasonable Efforts to minimize the effect of such actions or inactions on the Large Generating Facility or Interconnection Customer's Interconnection Facilities. Transmission Provider may, on the basis of technical considerations, require the Large Generating Facility to mitigate an Emergency Condition by taking actions necessary and limited in scope to remedy the Emergency Condition, including, but not limited to, directing Interconnection Customer to shut-down, start-up, increase or decrease the real or reactive power output of the Large Generating Facility; implementing a reduction or disconnection pursuant to Article 13.5.2; directing Interconnection Customer to assist with blackstart (if available) or restoration efforts; or altering the outage schedules of the Large Generating Facility and Interconnection Customer's Interconnection Facilities. Interconnection Customer shall comply with all of Transmission Provider's operating

instructions concerning Large Generating Facility real power and reactive power output within the manufacturer's design limitations of the Large Generating Facility's equipment that is in service and physically available for operation at the time, in compliance with Applicable Laws and Regulations.

13.5.2 Reduction and Disconnection. Transmission Provider may reduce Interconnection Service or disconnect the Large Generating Facility or Interconnection Customer's Interconnection Facilities, when such, reduction or disconnection is necessary under Good Utility Practice due to Emergency Conditions. These rights are separate and distinct from any right of curtailment of Transmission Provider pursuant to Transmission Provider's Tariff. When Transmission Provider can schedule the reduction or disconnection in advance, Transmission Provider shall notify Interconnection Customer of the reasons, timing and expected duration of the reduction or disconnection. Transmission Provider shall coordinate with Interconnection Customer using Good Utility Practice to schedule the reduction or disconnection during periods of least impact to Interconnection Customer and Transmission Provider. Any reduction or disconnection shall continue only for so long as reasonably necessary under Good Utility Practice. The Parties shall cooperate with each other to restore the Large Generating Facility, the Interconnection Facilities, and the Transmission System to their normal operating state as soon as practicable consistent with Good Utility Practice.

13.6 Interconnection Customer Authority. Consistent with Good Utility Practice and the LGIA and the LGIP, Interconnection Customer may take actions or inactions with regard to the Large Generating Facility or Interconnection Customer's Interconnection Facilities during an Emergency Condition in order to (i) preserve public health and safety, (ii) preserve the reliability of the Large Generating Facility or Interconnection Customer's Interconnection Facilities, (iii) limit or prevent damage, and (iv) expedite restoration of service. Interconnection Customer shall use Reasonable Efforts to minimize the effect of such actions or inactions on the Transmission System and Transmission Provider's Interconnection Facilities. Transmission Provider shall use Reasonable Efforts to assist Interconnection Customer in such actions.

13.7 Limited Liability. Except as otherwise provided in Article 11.6.1 of this LGIA, neither Party shall be liable to the other for any action it takes in responding to an Emergency Condition so long as such action is made in good faith and is consistent with Good Utility Practice.

Article 14. Regulatory Requirements and Governing Law

14.1 Regulatory Requirements. Each Party's obligations under this LGIA shall be subject to its receipt of any required approval or certificate from one or more Governmental Authorities in the form and substance satisfactory to the applying Party, or the Party making any required filings with, or

providing notice to, such Governmental Authorities, and the expiration of any time period associated therewith. Each Party shall in good faith seek and use its Reasonable Efforts to obtain such other approvals. Nothing in this LGIA shall require Interconnection Customer to take any action that could result in its inability to obtain, or its loss of, status or exemption under the Federal Power Act, the Public Utility Holding Company Act of 1935, as amended, or the Public Utility Regulatory Policies Act of 1978.

14.2 Governing Law.

14.2.1 The validity, interpretation and performance of this LGIA and each of its provisions shall be governed by the laws of the state where the Point of Interconnection is located, without regard to its conflicts of law principles.

14.2.2 This LGIA is subject to all Applicable Laws and Regulations.

14.2.3 Each Party expressly reserves the right to seek changes in, appeal, or otherwise contest any laws, orders, rules, or regulations of a Governmental Authority.

Article 15. Notices

15.1 General. Unless otherwise provided in this LGIA, any notice, demand or request required or permitted to be given by either Party to the other and any instrument required or permitted to be tendered or delivered by either Party in writing to the other shall be effective when delivered and may be so given, tendered or delivered, by recognized national courier, or by depositing the same with the United States Postal Service with postage prepaid, for delivery by certified or registered mail, addressed to the Party, or personally delivered to the Party, at the address set out in Appendix F, Addresses for Delivery of Notices and Billings.

Either Party may change the notice information in this LGIA by giving five (5) Business Days written notice prior to the effective date of the change.

15.2 Billings and Payments. Billings and payments shall be sent to the addresses set out in Appendix F.

15.3 Alternative Forms of Notice. Any notice or request required or permitted to be given by a Party to the other and not required by this Agreement to be given in writing may be so given by telephone, facsimile or email to the telephone numbers and email addresses set out in Appendix F.

15.4 Operations and Maintenance Notice. Each Party shall notify the other Party in writing of the identity of the person(s) that it designates as the point(s) of contact with respect to the implementation of Articles 9 and 10.

Article 16. Force Majeure

16.1 Force Majeure.

16.1.1 Economic hardship is not considered a Force Majeure event.

16.1.2 Neither Party shall be considered to be in Default with respect to any obligation hereunder, (including obligations under Article 4), other than the obligation to pay money when due, if prevented from fulfilling such obligation by Force Majeure. A Party unable to fulfill any obligation hereunder (other than an obligation to pay money when

due) by reason of Force Majeure shall give notice and the full particulars of such Force Majeure to the other Party in writing or by telephone as soon as reasonably possible after the occurrence of the cause relied upon. Telephone notices given pursuant to this article shall be confirmed in writing as soon as reasonably possible and shall specifically state full particulars of the Force Majeure, the time and date when the Force Majeure occurred and when the Force Majeure is reasonably expected to cease. The Party affected shall exercise due diligence to remove such disability with reasonable dispatch, but shall not be required to accede or agree to any provision not satisfactory to it in order to settle and terminate a strike or other labor disturbance.

Article 17. Default

17.1 Default.

17.1.1 General. No Default shall exist where such failure to discharge an obligation (other than the payment of money) is the result of Force Majeure as defined in this LGIA or the result of an act of omission of the other Party. Upon a Breach, the non-breaching Party shall give written notice of such Breach to the breaching Party. Except as provided in Article 17.1.2, the breaching Party shall have thirty (30) Calendar Days from receipt of the Default notice within which to cure such Breach; provided however, if such Breach is not capable of cure within thirty (30) Calendar Days, the breaching Party shall commence such cure within thirty (30) Calendar Days after notice and continuously and diligently complete such cure within ninety (90) Calendar Days from receipt of the Default notice; and, if cured within such time, the Breach specified in such notice shall cease to exist.

17.1.2 Right to Terminate. If a Breach is not cured as provided in this article, or if a Breach is not capable of being cured within the period provided for herein, the non-breaching Party shall have the right to declare a Default and terminate this LGIA by written notice at any time until cure occurs, and be relieved of any further obligation hereunder and, whether or not that Party terminates this LGIA, to recover from the breaching Party all amounts due hereunder, plus all other damages and remedies to which it is entitled at law or in equity. The provisions of this article will survive termination of this LGIA.

17.2 Violation of Operating Assumptions for Generating Facilities. If Transmission Provider requires Interconnection Customer to memorialize the operating assumptions for the charging behavior of a Generating Facility that includes at least one electric storage resource in Appendix H of this LGIA, Transmission Provider may consider Interconnection Customer to be in Breach of the LGIA if Interconnection Customer fails to operate the Generating Facility in accordance with those operating assumptions for charging behavior. However, if Interconnection Customer operates contrary to the operating assumptions for charging behavior specified in Appendix H of this LGIA at the direction of Transmission Provider, Transmission Provider shall not consider Interconnection Customer in Breach of this LGIA.

Article 18. Indemnity, Consequential Damages and Insurance

18.1 Indemnity. The Parties shall at all times indemnify, defend, and hold the other Party harmless from, any and all damages, losses, claims, including claims and actions relating to injury to or death of any person or damage to property, demand, suits, recoveries, costs and expenses, court costs, attorney fees, and all other obligations by or to third parties, arising out of or resulting from the other Party's action or inactions of its obligations under this LGIA on behalf of the Indemnifying Party, except in cases of gross negligence or intentional wrongdoing by the indemnified Party.

18.1.1 Indemnified Person. If an Indemnified Person is entitled to indemnification under this Article 18 as a result of a claim by a third party, and the Indemnifying Party fails, after notice and reasonable opportunity to proceed under Article 18.1, to assume the defense of such claim, such Indemnified Person may at the expense of the Indemnifying Party contest, settle or consent to the entry of any judgment with respect to, or pay in full, such claim.

18.1.2 Indemnifying Party. If an Indemnifying Party is obligated to indemnify and hold any Indemnified Person harmless under this Article 18, the amount owing to the Indemnified Person shall be the amount of such Indemnified Person's actual Loss, net of any insurance or other recovery.

18.1.3 Indemnity Procedures. Promptly after receipt by an Indemnified Person of any claim or notice of the commencement of any action or administrative or legal proceeding or investigation as to which the indemnity provided for in Article 18.1 may apply, the Indemnified Person shall notify the Indemnifying Party of such fact. Any failure of or delay in such notification shall not affect a Party's indemnification obligation unless such failure or delay is materially prejudicial to the Indemnifying Party.

The Indemnifying Party shall have the right to assume the defense thereof with counsel designated by such Indemnifying Party and reasonably satisfactory to the Indemnified Person. If the defendants in any such action include one or more Indemnified Persons and the Indemnifying Party and if the Indemnified Person reasonably concludes that there may be legal defenses available to it and/or other Indemnified Persons which are different from or additional to those available to the Indemnifying Party, the Indemnified Person shall have the right to select separate counsel to assert such legal defenses and to otherwise participate in the defense of such action on its own behalf. In such instances, the Indemnifying Party shall only be required to pay the fees and expenses of one additional attorney to represent an Indemnified Person or Indemnified Persons having such differing or additional legal defenses.

The Indemnified Person shall be entitled, at its expense, to participate in any such action, suit or proceeding, the defense of which has been assumed by the Indemnifying Party. Notwithstanding the foregoing, the Indemnifying Party (i) shall not be entitled to assume and control the defense of any such action, suit or proceedings if and

to the extent that, in the opinion of the Indemnified Person and its counsel, such action, suit or proceeding involves the potential imposition of criminal liability on the Indemnified Person, or there exists a conflict or adversity of interest between the Indemnified Person and the Indemnifying Party, in such event the Indemnifying Party shall pay the reasonable expenses of the Indemnified Person, and (ii) shall not settle or consent to the entry of any judgment in any action, suit or proceeding without the consent of the Indemnified Person, which shall not be reasonably withheld, conditioned or delayed.

18.2 Consequential Damages. Other than the Liquidated Damages heretofore described, in no event shall either Party be liable under any provision of this LGIA for any losses, damages, costs or expenses for any special, indirect, incidental, consequential, or punitive damages, including but not limited to loss of profit or revenue, loss of the use of equipment, cost of capital, cost of temporary equipment or services, whether based in whole or in part in contract, in tort, including negligence, strict liability, or any other theory of liability; provided, however, that damages for which a Party may be liable to the other Party under another agreement will not be considered to be special, indirect, incidental, or consequential damages hereunder.

18.3 Insurance. Each party shall, at its own expense, maintain in force throughout the period of this LGIA, and until released by the other Party, the following minimum insurance coverages, with insurers authorized to do business in the state where the Point of Interconnection is located:

18.3.1 Employers' Liability and Workers' Compensation Insurance providing statutory benefits in accordance with the laws and regulations of the state in which the Point of Interconnection is located.

18.3.2 Commercial General Liability Insurance including premises and operations, personal injury, broad form property damage, broad form blanket contractual liability coverage (including coverage for the contractual indemnification) products and completed operations coverage, coverage for explosion, collapse and underground hazards, independent contractors coverage, coverage for pollution to the extent normally available and punitive damages to the extent normally available and a cross liability endorsement, with minimum limits of One Million Dollars (\$1,000,000) per occurrence/One Million Dollars (\$1,000,000) aggregate combined single limit for personal injury, bodily injury, including death and property damage.

18.3.3 Comprehensive Automobile Liability Insurance for coverage of owned and non-owned and hired vehicles, trailers or semi-trailers designed for travel on public roads, with a minimum, combined single limit of One Million Dollars (\$1,000,000) per occurrence for bodily injury, including death, and property damage.

18.3.4 Excess Public Liability Insurance over and above the Employers' Liability Commercial General Liability and Comprehensive Automobile Liability Insurance coverage, with a minimum

combined single limit of Twenty Million Dollars (\$20,000,000) per occurrence/Twenty Million Dollars (\$20,000,000) aggregate.

18.3.5 The Commercial General Liability Insurance, Comprehensive Automobile Insurance and Excess Public Liability Insurance policies shall name the other Party, its parent, associated and Affiliate companies and their respective directors, officers, agents, servants and employees ("Other Party Group") as additional insured. All policies shall contain provisions whereby the insurers waive all rights of subrogation in accordance with the provisions of this LGIA against the Other Party Group and provide thirty (30) Calendar Days advance written notice to the Other Party Group prior to anniversary date of cancellation or any material change in coverage or condition.

18.3.6 The Commercial General Liability Insurance, Comprehensive Automobile Liability Insurance and Excess Public Liability Insurance policies shall contain provisions that specify that the policies are primary and shall apply to such extent without consideration for other policies separately carried and shall state that each insured is provided coverage as though a separate policy had been issued to each, except the insurer's liability shall not be increased beyond the amount for which the insurer would have been liable had only one insured been covered. Each Party shall be responsible for its respective deductibles or retentions.

18.3.7 The Commercial General Liability Insurance, Comprehensive Automobile Liability Insurance and Excess Public Liability Insurance policies, if written on a Claims First Made Basis, shall be maintained in full force and effect for two (2) years after termination of this LGIA, which coverage may be in the form of tail coverage or extended reporting period coverage if agreed by the Parties.

18.3.8 The requirements contained herein as to the types and limits of all insurance to be maintained by the Parties are not intended to and shall not in any manner, limit or qualify the liabilities and obligations assumed by the Parties under this LGIA.

18.3.9 Within ten (10) days following execution of this LGIA, and as soon as practicable after the end of each fiscal year or at the renewal of the insurance policy and in any event within ninety (90) days thereafter, each Party shall provide certification of all insurance required in this LGIA, executed by each insurer or by an authorized representative of each insurer.

18.3.10 Notwithstanding the foregoing, each Party may self-insure to meet the minimum insurance requirements of Articles 18.3.2 through 18.3.8 to the extent it maintains a self-insurance program; provided that, such Party's senior secured debt is rated at investment grade or better by Standard & Poor's and that its self-insurance program meets the minimum insurance requirements of Articles 18.3.2 through 18.3.8. For any period of time that a Party's senior secured debt is unrated by Standard & Poor's or is rated at less than investment grade by Standard & Poor's, such Party shall comply with the insurance requirements applicable to it under Articles 18.3.2 through 18.3.9. In

the event that a Party is permitted to self-insure pursuant to this article, it shall notify the other Party that it meets the requirements to self-insure and that its self-insurance program meets the minimum insurance requirements in a manner consistent with that specified in Article 18.3.9.

18.3.11 The Parties agree to report to each other in writing as soon as practical all accidents or occurrences resulting in injuries to any person, including death, and any property damage arising out of this LGIA.

Article 19. Assignment

19.1 Assignment. This LGIA may be assigned by either Party only with the written consent of the other; provided that either Party may assign this LGIA without the consent of the other Party to any Affiliate of the assigning Party with an equal or greater credit rating and with the legal authority and operational ability to satisfy the obligations of the assigning Party under this LGIA; and provided further that Interconnection Customer shall have the right to assign this LGIA, without the consent of Transmission Provider, for collateral security purposes to aid in providing financing for the Large Generating Facility, provided that Interconnection Customer will promptly notify Transmission Provider of any such assignment. Any financing arrangement entered into by Interconnection Customer pursuant to this article will provide that prior to or upon the exercise of the secured party's, trustee's or mortgagee's assignment rights pursuant to said arrangement, the secured creditor, the trustee or mortgagee will notify Transmission Provider of the date and particulars of any such exercise of assignment right(s), including providing the Transmission Provider with proof that it meets the requirements of Articles 11.5 and 18.3. Any attempted assignment that violates this article is void and ineffective. Any assignment under this LGIA shall not relieve a Party of its obligations, nor shall a Party's obligations be enlarged, in whole or in part, by reason thereof. Where required, consent to assignment will not be unreasonably withheld, conditioned or delayed.

Article 20. Severability

20.1 Severability. If any provision in this LGIA is finally determined to be invalid, void or unenforceable by any court or other Governmental Authority having jurisdiction, such determination shall not invalidate, void or make unenforceable any other provision, agreement or covenant of this LGIA; provided that if Interconnection Customer (or any third party, but only if such third party is not acting at the direction of Transmission Provider) seeks and obtains such a final determination with respect to any provision of the Alternate Option (Article 5.1.2), or the Negotiated Option (Article 5.1.4), then none of these provisions shall thereafter have any force or effect and the Parties' rights and obligations shall be governed solely by the Standard Option (Article 5.1.1).

Article 21. Comparability

21.1 Comparability. The Parties will comply with all applicable comparability and code of conduct laws, rules and regulations, as amended from time to time.

Article 22. Confidentiality

22.1 Confidentiality. Confidential Information shall include, without limitation, all information relating to a Party's technology, research and development, business affairs, and pricing, and any information supplied by either of the Parties to the other prior to the execution of this LGIA.

Information is Confidential Information only if it is clearly designated or marked in writing as confidential on the face of the document, or, if the information is conveyed orally or by inspection, if the Party providing the information orally informs the Party receiving the information that the information is confidential.

If requested by either Party, the other Party shall provide in writing, the basis for asserting that the information referred to in this Article 22 warrants confidential treatment, and the requesting Party may disclose such writing to the appropriate Governmental Authority. Each Party shall be responsible for the costs associated with affording confidential treatment to its information.

22.1.1 Term. During the term of this LGIA, and for a period of three (3) years after the expiration or termination of this LGIA, except as otherwise provided in this Article 22, each Party shall hold in confidence and shall not disclose to any person Confidential Information.

22.1.2 Scope. Confidential Information shall not include information that the receiving Party can demonstrate: (1) is generally available to the public other than as a result of a disclosure by the receiving Party; (2) was in the lawful possession of the receiving Party on a non-confidential basis before receiving it from the disclosing Party; (3) was supplied to the receiving Party without restriction by a third party, who, to the knowledge of the receiving Party after due inquiry, was under no obligation to the disclosing Party to keep such information confidential; (4) was independently developed by the receiving Party without reference to Confidential Information of the disclosing Party; (5) is, or becomes, publicly known, through no wrongful act or omission of the receiving Party or Breach of this LGIA; or (6) is required, in accordance with Article 22.1.7 of the LGIA, Order of Disclosure, to be disclosed by any Governmental Authority or is otherwise required to be disclosed by law or subpoena, or is necessary in any legal proceeding establishing rights and obligations under this LGIA. Information designated as Confidential Information will no longer be deemed confidential if the Party that designated the information as confidential notifies the other Party that it no longer is confidential.

22.1.3 Release of Confidential Information. Neither Party shall release or disclose Confidential Information to any other person, except to its Affiliates (limited by the Standards of Conduct requirements), subcontractors, employees, consultants, or to parties who may be or considering providing financing to or equity participation with Interconnection Customer, or to potential purchasers or assignees of Interconnection Customer, on a need-to-know basis in

connection with this LGIA, unless such person has first been advised of the confidentiality provisions of this Article 22 and has agreed to comply with such provisions. Notwithstanding the foregoing, a Party providing Confidential Information to any person shall remain primarily responsible for any release of Confidential Information in contravention of this Article 22.

22.1.4 Rights. Each Party retains all rights, title, and interest in the Confidential Information that each Party discloses to the other Party. The disclosure by each Party to the other Party of Confidential Information shall not be deemed a waiver by either Party or any other person or entity of the right to protect the Confidential Information from public disclosure.

22.1.5 No Warranties. By providing Confidential Information, neither Party makes any warranties or representations as to its accuracy or completeness. In addition, by supplying Confidential Information, neither Party obligates itself to provide any particular information or Confidential Information to the other Party nor to enter into any further agreements or proceed with any other relationship or joint venture.

22.1.6 Standard of Care. Each Party shall use at least the same standard of care to protect Confidential Information it receives as it uses to protect its own Confidential Information from unauthorized disclosure, publication or dissemination. Each Party may use Confidential Information solely to fulfill its obligations to the other Party under this LGIA or its regulatory requirements.

22.1.7 Order of Disclosure. If a court or a Government Authority or entity with the right, power, and apparent authority to do so requests or requires either Party, by subpoena, oral deposition, interrogatories, requests for production of documents, administrative order, or otherwise, to disclose Confidential Information, that Party shall provide the other Party with prompt notice of such request(s) or requirement(s) so that the other Party may seek an appropriate protective order or waive compliance with the terms of this LGIA. Notwithstanding the absence of a protective order or waiver, the Party may disclose such Confidential Information which, in the opinion of its counsel, the Party is legally compelled to disclose. Each Party will use Reasonable Efforts to obtain reliable assurance that confidential treatment will be accorded any Confidential Information so furnished.

22.1.8 Termination of Agreement. Upon termination of this LGIA for any reason, each Party shall, within ten (10) Calendar Days of receipt of a written request from the other Party, use Reasonable Efforts to destroy, erase, or delete (with such destruction, erasure, and deletion certified in writing to the other Party) or return to the other Party, without retaining copies thereof, any and all written or electronic Confidential Information received from the other Party.

22.1.9 Remedies. The Parties agree that monetary damages would be inadequate to compensate a Party for the other Party's Breach of its obligations under this Article 22. Each Party accordingly agrees that the other Party shall be entitled to equitable

relief, by way of injunction or otherwise, if the first Party Breaches or threatens to Breach its obligations under this Article 22, which equitable relief shall be granted without bond or proof of damages, and the receiving Party shall not plead in defense that there would be an adequate remedy at law. Such remedy shall not be deemed an exclusive remedy for the Breach of this Article 22, but shall be in addition to all other remedies available at law or in equity. The Parties further acknowledge and agree that the covenants contained herein are necessary for the protection of legitimate business interests and are reasonable in scope. No Party, however, shall be liable for indirect, incidental, or consequential or punitive damages of any nature or kind resulting from or arising in connection with this Article 22.

22.1.10 Disclosure to FERC, its Staff, or a State. Notwithstanding anything in this Article 22 to the contrary, and pursuant to 18 CFR 1b.20, if FERC or its staff, during the course of an investigation or otherwise, requests information from one of the Parties that is otherwise required to be maintained in confidence pursuant to this LGIA, the Party shall provide the requested information to FERC or its staff, within the time provided for in the request for information. In providing the information to FERC or its staff, the Party must, consistent with 18 CFR 388.112, request that the information be treated as confidential and non-public by FERC and its staff and that the information be withheld from public disclosure. Parties are prohibited from notifying the other Party to this LGIA prior to the release of the Confidential Information to FERC or its staff. The Party shall notify the other Party to the LGIA when it is notified by FERC or its staff that a request to release Confidential Information has been received by FERC, at which time either of the Parties may respond before such information would be made public, pursuant to 18 CFR 388.112. Requests from a state regulatory body conducting a confidential investigation shall be treated in a similar manner if consistent with the applicable state rules and regulations.

22.1.11 Subject to the exception in Article 22.1.10, any information that a Party claims is competitively sensitive, commercial or financial information under this LGIA ("Confidential Information") shall not be disclosed by the other Party to any person not employed or retained by the other Party, except to the extent disclosure is (i) required by law; (ii) reasonably deemed by the disclosing Party to be required to be disclosed in connection with a dispute between or among the Parties, or the defense of litigation or dispute; (iii) otherwise permitted by consent of the other Party, such consent not to be unreasonably withheld; or (iv) necessary to fulfill its obligations under this LGIA or as a transmission service provider or a [Control Area] *Balancing Authority Area* operator including disclosing the Confidential Information to an RTO or ISO or to a regional or national reliability organization. The Party asserting confidentiality shall notify the other Party in writing of the information it claims is confidential. Prior to any disclosures of the other Party's Confidential Information under

this subparagraph, or if any third party or Governmental Authority makes any request or demand for any of the information described in this subparagraph, the disclosing Party agrees to promptly notify the other Party in writing and agrees to assert confidentiality and cooperate with the other Party in seeking to protect the Confidential Information from public disclosure by confidentiality agreement, protective order or other reasonable measures.

Article 23. Environmental Releases

23.1 Each Party shall notify the other Party, first orally and then in writing, of the release of any Hazardous Substances, any asbestos or lead abatement activities, or any type of remediation activities related to the Large Generating Facility or the Interconnection Facilities, each of which may reasonably be expected to affect the other Party. The notifying Party shall: (i) provide the notice as soon as practicable, provided such Party makes a good faith effort to provide the notice no later than twenty-four hours after such Party becomes aware of the occurrence; and (ii) promptly furnish to the other Party copies of any publicly available reports filed with any Governmental Authorities addressing such events.

Article 24. Information Requirements

24.1 Information Acquisition. Transmission Provider and Interconnection Customer shall submit specific information regarding the electrical characteristics of their respective facilities to each other as described below and in accordance with Applicable Reliability Standards.

24.2 Information Submission by Transmission Provider. The initial information submission by Transmission Provider shall occur no later than one hundred eighty (180) Calendar Days prior to Trial Operation and shall include Transmission System information necessary to allow Interconnection Customer to select equipment and meet any system protection and stability requirements, unless otherwise agreed to by the Parties. On a monthly basis Transmission Provider shall provide Interconnection Customer a status report on the construction and installation of Transmission Provider's Interconnection Facilities and Network Upgrades, including, but not limited to, the following information: (1) progress to date; (2) a description of the activities since the last report (3) a description of the action items for the next period; and (4) the delivery status of equipment ordered.

24.3 Updated Information Submission by Interconnection Customer. The updated information submission by Interconnection Customer, including manufacturer information, shall occur no later than one hundred eighty (180) Calendar Days prior to the Trial Operation. Interconnection Customer shall submit a completed copy of the Large Generating Facility data requirements contained in Appendix 1 to the LGIP. It shall also include any additional information provided to Transmission Provider for the [Feasibility] *Cluster Study* and Facilities Study. Information in this submission shall be the most current Large

Generating Facility design or expected performance data. Information submitted for stability models shall be compatible with Transmission Provider standard models. If there is no compatible model, Interconnection Customer will work with a consultant mutually agreed to by the Parties to develop and supply a standard model and associated information.

If Interconnection Customer's data is materially different from what was originally provided to Transmission Provider pursuant to the Interconnection Study Agreement between Transmission Provider and Interconnection Customer, then Transmission Provider will conduct appropriate studies to determine the impact on Transmission Provider Transmission System based on the actual data submitted pursuant to this Article 24.3. [The] Interconnection Customer shall not begin Trial Operation until such studies are completed.

24.4 Information Supplementation. Prior to the Operation Date, the Parties shall supplement their information submissions described above in this Article 24 with any and all "as-built" Large Generating Facility information or "as-tested" performance information that differs from the initial submissions or, alternatively, written confirmation that no such differences exist. The Interconnection Customer shall conduct tests on the Large Generating Facility as required by Good Utility Practice such as an open circuit "step voltage" test on the Large Generating Facility to verify proper operation of the Large Generating Facility's automatic voltage regulator.

Unless otherwise agreed, the test conditions shall include: (1) Large Generating Facility at synchronous speed; (2) automatic voltage regulator on and in voltage control mode; and (3) a five percent change in Large Generating Facility terminal voltage initiated by a change in the voltage regulators reference voltage. Interconnection Customer shall provide validated test recordings showing the responses of Large Generating Facility terminal and field voltages. In the event that direct recordings of these voltages is impractical, recordings of other voltages or currents that mirror the response of the Large Generating Facility's terminal or field voltage are acceptable if information necessary to translate these alternate quantities to actual Large Generating Facility terminal or field voltages is provided. Large Generating Facility testing shall be conducted and results provided to Transmission Provider for each individual generating unit in a station.

Subsequent to the Operation Date, Interconnection Customer shall provide Transmission Provider any information changes due to equipment replacement, repair, or adjustment. Transmission Provider shall provide Interconnection Customer any information changes due to equipment replacement, repair or adjustment in the directly connected substation or any adjacent Transmission Provider-owned substation that may affect Interconnection Customer's Interconnection Facilities equipment ratings, protection or operating requirements. The Parties shall provide such information no later than thirty (30) Calendar Days after the

date of the equipment replacement, repair or adjustment.

Article 25. Information Access and Audit Rights

25.1 Information Access. Each Party (the “disclosing Party”) shall make available to the other Party information that is in the possession of the disclosing Party and is necessary in order for the other Party to: (i) verify the costs incurred by the disclosing Party for which the other Party is responsible under this LGIA; and (ii) carry out its obligations and responsibilities under this LGIA. The Parties shall not use such information for purposes other than those set forth in this Article 25.1 and to enforce their rights under this LGIA.

25.2 Reporting of Non-Force Majeure Events. Each Party (the “notifying Party”) shall notify the other Party when the notifying Party becomes aware of its inability to comply with the provisions of this LGIA for a reason other than a Force Majeure event. The Parties agree to cooperate with each other and provide necessary information regarding such inability to comply, including the date, duration, reason for the inability to comply, and corrective actions taken or planned to be taken with respect to such inability to comply. Notwithstanding the foregoing, notification, cooperation or information provided under this article shall not entitle the Party receiving such notification to allege a cause for anticipatory breach of this LGIA.

25.3 Audit Rights. Subject to the requirements of confidentiality under Article 22 of this LGIA, each Party shall have the right, during normal business hours, and upon prior reasonable notice to the other Party, to audit at its own expense the other Party’s accounts and records pertaining to either Party’s performance or either Party’s satisfaction of obligations under this LGIA. Such audit rights shall include audits of the other Party’s costs, calculation of invoiced amounts, Transmission Provider’s efforts to allocate responsibility for the provision of reactive support to the Transmission System, Transmission Provider’s efforts to allocate responsibility for interruption or reduction of generation on the Transmission System, and each Party’s actions in an Emergency Condition. Any audit authorized by this article shall be performed at the offices where such accounts and records are maintained and shall be limited to those portions of such accounts and records that relate to each Party’s performance and satisfaction of obligations under this LGIA. Each Party shall keep such accounts and records for a period equivalent to the audit rights periods described in Article 25.4.

25.4 Audit Rights Periods.

25.4.1 Audit Rights Period for Construction-Related Accounts and Records. Accounts and records related to the design, engineering, procurement, and construction of Transmission Provider’s Interconnection Facilities and Network Upgrades shall be subject to audit for a period of twenty-four months following Transmission Provider’s issuance of a final invoice in accordance with Article 12.2.

25.4.2 Audit Rights Period for All Other Accounts and Records. Accounts and records related to either Party’s performance or satisfaction of all obligations under this LGIA other than those described in Article 25.4.1 shall be subject to audit as follows: (i) for an audit relating to cost obligations, the applicable audit rights period shall be twenty-four months after the auditing Party’s receipt of an invoice giving rise to such cost obligations; and (ii) for an audit relating to all other obligations, the applicable audit rights period shall be twenty-four months after the event for which the audit is sought.

25.5 Audit Results. If an audit by a Party determines that an overpayment or an underpayment has occurred, a notice of such overpayment or underpayment shall be given to the other Party together with those records from the audit which support such determination.

Article 26. Subcontractors

26.1 General. Nothing in this LGIA shall prevent a Party from utilizing the services of any subcontractor as it deems appropriate to perform its obligations under this LGIA; provided, however, that each Party shall require its subcontractors to comply with all applicable terms and conditions of this LGIA in providing such services and each Party shall remain primarily liable to the other Party for the performance of such subcontractor.

26.2 Responsibility of Principal. The creation of any subcontract relationship shall not relieve the hiring Party of any of its obligations under this LGIA. The hiring Party shall be fully responsible to the other Party for the acts or omissions of any subcontractor the hiring Party hires as if no subcontract had been made; provided, however, that in no event shall Transmission Provider be liable for the actions or inactions of Interconnection Customer or its subcontractors with respect to obligations of Interconnection Customer under Article 5 of this LGIA. Any applicable obligation imposed by this LGIA upon the hiring Party shall be equally binding upon, and shall be construed as having application to, any subcontractor of such Party.

26.3 No Limitation by Insurance. The obligations under this Article 26 will not be limited in any way by any limitation of subcontractor’s insurance.

Article 27. Disputes

27.1 Submission. In the event either Party has a dispute, or asserts a claim, that arises out of or in connection with this LGIA or its performance, such Party (the “disputing Party”) shall provide the other Party with written notice of the dispute or claim (“Notice of Dispute”). Such dispute or claim shall be referred to a designated senior representative of each Party for resolution on an informal basis as promptly as practicable after receipt of the Notice of Dispute by the other Party. In the event the designated representatives are unable to resolve the claim or dispute through unassisted or assisted negotiations within thirty (30) Calendar Days of the other Party’s receipt of the Notice of Dispute, such claim or dispute may, upon mutual agreement of the Parties, be submitted to arbitration and resolved in

accordance with the arbitration procedures set forth below. In the event the Parties do not agree to submit such claim or dispute to arbitration, each Party may exercise whatever rights and remedies it may have in equity or at law consistent with the terms of this LGIA.

27.2 External Arbitration Procedures. Any arbitration initiated under this LGIA shall be conducted before a single neutral arbitrator appointed by the Parties. If the Parties fail to agree upon a single arbitrator within ten (10) Calendar Days of the submission of the dispute to arbitration, each Party shall choose one arbitrator who shall sit on a three-member arbitration panel. The two arbitrators so chosen shall within twenty (20) Calendar Days select a third arbitrator to chair the arbitration panel. In either case, the arbitrators shall be knowledgeable in electric utility matters, including electric transmission and bulk power issues, and shall not have any current or past substantial business or financial relationships with any party to the arbitration (except prior arbitration). The arbitrator(s) shall provide each of the Parties an opportunity to be heard and, except as otherwise provided herein, shall conduct the arbitration in accordance with the Commercial Arbitration Rules of the American Arbitration Association (“Arbitration Rules”) and any applicable FERC regulations or RTO rules; provided, however, in the event of a conflict between the Arbitration Rules and the terms of this Article 27, the terms of this Article 27 shall prevail.

27.3 Arbitration Decisions. Unless otherwise agreed by the Parties, the arbitrator(s) shall render a decision within ninety (90) Calendar Days of appointment and shall notify the Parties in writing of such decision and the reasons therefor. The arbitrator(s) shall be authorized only to interpret and apply the provisions of this LGIA and shall have no power to modify or change any provision of this Agreement in any manner. The decision of the arbitrator(s) shall be final and binding upon the Parties, and judgment on the award may be entered in any court having jurisdiction. The decision of the arbitrator(s) may be appealed solely on the grounds that the conduct of the arbitrator(s), or the decision itself, violated the standards set forth in the Federal Arbitration Act or the Administrative Dispute Resolution Act. The final decision of the arbitrator must also be filed with FERC if it affects jurisdictional rates, terms and conditions of service, Interconnection Facilities, or Network Upgrades.

27.4 Costs. Each Party shall be responsible for its own costs incurred during the arbitration process and for the following costs, if applicable: (1) the cost of the arbitrator chosen by the Party to sit on the three member panel and one half of the cost of the third arbitrator chosen; or (2) one half the cost of the single arbitrator jointly chosen by the Parties.

Article 28. Representations, Warranties, and Covenants

28.1 General. Each Party makes the following representations, warranties and covenants:

28.1.1 Good Standing. Such Party is duly organized, validly existing and in good

standing under the laws of the state in which it is organized, formed, or incorporated, as applicable; that it is qualified to do business in the state or states in which the Large Generating Facility, Interconnection Facilities and Network Upgrades owned by such Party, as applicable, are located; and that it has the corporate power and authority to own its properties, to carry on its business as now being conducted and to enter into this LGIA and carry out the transactions contemplated hereby and perform and carry out all covenants and obligations on its part to be performed under and pursuant to this LGIA.

28.1.2 Authority. Such Party has the right, power and authority to enter into this LGIA, to become a Party hereto and to perform its obligations hereunder. This LGIA is a legal, valid and binding obligation of such Party, enforceable against such Party in accordance with its terms, except as the enforceability thereof may be limited by applicable bankruptcy, insolvency, reorganization or other similar laws affecting creditors' rights generally and by general equitable principles (regardless of whether enforceability is sought in a proceeding in equity or at law).

28.1.3 No Conflict. The execution, delivery and performance of this LGIA does not violate or conflict with the organizational or formation documents, or bylaws or operating agreement, of such Party, or any judgment, license, permit, order, material agreement or instrument applicable to or binding upon such Party or any of its assets.

28.1.4 Consent and Approval. Such Party has sought or obtained, or, in accordance with this LGIA will seek or obtain, each consent, approval, authorization, order, or acceptance by any Governmental Authority in connection with the execution, delivery and performance of this LGIA, and it will provide to any Governmental Authority notice of any actions under this LGIA that are required by Applicable Laws and Regulations.

Article 29. Joint Operating Committee

29.1 Joint Operating Committee. Except in the case of ISOs and RTOs, Transmission Provider shall constitute a Joint Operating Committee to coordinate operating and technical considerations of Interconnection Service. At least six (6) months prior to the expected Initial Synchronization Date, Interconnection Customer and Transmission Provider shall each appoint one representative and one alternate to the Joint Operating Committee. Each Interconnection Customer shall notify Transmission Provider of its appointment in writing. Such appointments may be changed at any time by similar notice. The Joint Operating Committee shall meet as necessary, but not less than once each calendar year, to carry out the duties set forth herein. The Joint Operating Committee shall hold a meeting at the request of either Party, at a time and place agreed upon by the representatives. The Joint Operating Committee shall perform all of its duties consistent with the provisions of this LGIA. Each Party shall cooperate in providing to the Joint Operating Committee all information required in the performance

of the Joint Operating Committee's duties. All decisions and agreements, if any, made by the Joint Operating Committee, shall be evidenced in writing. The duties of the Joint Operating Committee shall include the following:

29.1.1 Establish data requirements and operating record requirements.

29.1.2 Review the requirements, standards, and procedures for data acquisition equipment, protective equipment, and any other equipment or software.

29.1.3 Annually review the one (1) year forecast of maintenance and planned outage schedules of Transmission Provider's and Interconnection Customer's facilities at the Point of Interconnection.

29.1.4 Coordinate the scheduling of maintenance and planned outages on the Interconnection Facilities, the Large Generating Facility and other facilities that impact the normal operation of the interconnection of the Large Generating Facility to the Transmission System.

29.1.5 Ensure that information is being provided by each Party regarding equipment availability.

29.1.6 Perform such other duties as may be conferred upon it by mutual agreement of the Parties.

Article 30. Miscellaneous

30.1 Binding Effect. This LGIA and the rights and obligations hereof, shall be binding upon and shall inure to the benefit of the successors and assigns of the Parties hereto.

30.2 Conflicts. In the event of a conflict between the body of this LGIA and any attachment, appendices or exhibits hereto, the terms and provisions of the body of this LGIA shall prevail and be deemed the final intent of the Parties.

30.3 Rules of Interpretation. This LGIA, unless a clear contrary intention appears, shall be construed and interpreted as follows: (1) the singular number includes the plural number and vice versa; (2) reference to any person includes such person's successors and assigns but, in the case of a Party, only if such successors and assigns are permitted by this LGIA, and reference to a person in a particular capacity excludes such person in any other capacity or individually; (3) reference to any agreement (including this LGIA), document, instrument or tariff means such agreement, document, instrument, or tariff as amended or modified and in effect from time to time in accordance with the terms thereof and, if applicable, the terms hereof; (4) reference to any Applicable Laws and Regulations means such Applicable Laws and Regulations as amended, modified, codified, or reenacted, in whole or in part, and in effect from time to time, including, if applicable, rules and regulations promulgated thereunder; (5) unless expressly stated otherwise, reference to any Article, Section or Appendix means such Article of this LGIA or such Appendix to this LGIA, or such Section to the LGIP or such Appendix to the LGIP, as the case may be; (6) "hereunder", "hereof", "herein", "hereto" and words of similar import shall be deemed references to this LGIA as a whole and not to any particular Article or other provision

hereof or thereof; (7) "including" (and with correlative meaning "include") means including without limiting the generality of any description preceding such term; and (8) relative to the determination of any period of time, "from" means "from and including", "to" means "to but excluding" and "through" means "through and including".

30.4 Entire Agreement. This LGIA, including all Appendices and Schedules attached hereto, constitutes the entire agreement between the Parties with reference to the subject matter hereof, and supersedes all prior and contemporaneous understandings or agreements, oral or written, between the Parties with respect to the subject matter of this LGIA. There are no other agreements, representations, warranties, or covenants which constitute any part of the consideration for, or any condition to, either Party's compliance with its obligations under this LGIA.

30.5 No Third Party Beneficiaries. This LGIA is not intended to and does not create rights, remedies, or benefits of any character whatsoever in favor of any persons, corporations, associations, or entities other than the Parties, and the obligations herein assumed are solely for the use and benefit of the Parties, their successors in interest and, where permitted, their assigns.

30.6 Waiver. The failure of a Party to this LGIA to insist, on any occasion, upon strict performance of any provision of this LGIA will not be considered a waiver of any obligation, right, or duty of, or imposed upon, such Party.

Any waiver at any time by either Party of its rights with respect to this LGIA shall not be deemed a continuing waiver or a waiver with respect to any other failure to comply with any other obligation, right, duty of this LGIA. Termination or Default of this LGIA for any reason by Interconnection Customer shall not constitute a waiver of Interconnection Customer's legal rights to obtain an interconnection from Transmission Provider. Any waiver of this LGIA shall, if requested, be provided in writing.

30.7 Headings. The descriptive headings of the various Articles of this LGIA have been inserted for convenience of reference only and are of no significance in the interpretation or construction of this LGIA.

30.8 Multiple Counterparts. This LGIA may be executed in two or more counterparts, each of which is deemed an original but all constitute one and the same instrument.

30.9 Amendment. The Parties may by mutual agreement amend this LGIA by a written instrument duly executed by the Parties.

30.10 Modification by the Parties. The Parties may by mutual agreement amend the Appendices to this LGIA by a written instrument duly executed by the Parties. Such amendment shall become effective and a part of this LGIA upon satisfaction of all Applicable Laws and Regulations.

30.11 Reservation of Rights. Transmission Provider shall have the right to make a unilateral filing with FERC to modify this LGIA with respect to any rates, terms and conditions, charges, classifications of service, rule or regulation under section 205 or any

other applicable provision of the Federal Power Act and FERC's rules and regulations thereunder, and Interconnection Customer shall have the right to make a unilateral filing with FERC to modify this LGIA pursuant to section 206 or any other applicable provision of the Federal Power Act and FERC's rules and regulations thereunder; provided that each Party shall have the right to protest any such filing by the other Party and to participate fully in any proceeding before FERC in which such modifications may be considered. Nothing in this LGIA shall limit the rights of the Parties or of FERC under sections 205 or 206 of the Federal Power Act and FERC's rules and regulations thereunder, except to the extent that the Parties otherwise mutually agree as provided herein.

30.12 No Partnership. This LGIA shall not be interpreted or construed to create an association, joint venture, agency relationship, or partnership between the Parties or to impose any partnership obligation or partnership liability upon either Party. Neither Party shall have any right, power or authority to enter into any agreement or undertaking for, or act on behalf of, or to act as or be an agent or representative of, or to otherwise bind, the other Party.

IN WITNESS WHEREOF, the Parties have executed this LGIA in duplicate originals, each of which shall constitute and be an original effective Agreement between the Parties.

[Insert name of Transmission Provider or Transmission Owner, if applicable]

By: _____

Title: _____

Date: _____

[Insert name of Interconnection Customer]

By: _____

Title: _____

Date: _____

Appendix A to LGIA

Interconnection Facilities, Network Upgrades and Distribution Upgrades

1. Interconnection Facilities:
 - (a) {insert Interconnection Customer's Interconnection Facilities};
 - (b) {insert Transmission Provider's Interconnection Facilities};
2. Network Upgrades:
 - (a) {insert Stand Alone Network Upgrades};
 - (b) {insert Substation Network Upgrades [Other Network Upgrades]};
 - (c) {insert System Network Upgrades};
3. Distribution Upgrades:

Appendix B to LGIA

Milestones

Site Control

Check box if applicable []

Interconnection Customer with qualifying regulatory limitations must demonstrate 100% Site Control by {Transmission Provider to insert date 180 days from the effective date of this LGIA} or the LGIA may be terminated per Article 17 (Default) of this LGIA and the Interconnection Customer may be subject to Withdrawal Penalties per Section 3.7.1.1 of

the Transmission Provider's LGIP (Calculation of the Withdrawal Penalty).

Appendix C to LGIA

Interconnection Details

Appendix D to LGIA

Security Arrangements Details

Infrastructure security of Transmission System equipment and operations and control hardware and software is essential to ensure day-to-day Transmission System reliability and operational security. FERC will expect all Transmission Providers, market participants, and Interconnection Customers interconnected to the Transmission System to comply with the recommendations offered by the President's Critical Infrastructure Protection Board and, eventually, best practice recommendations from the electric reliability authority. All public utilities will be expected to meet basic standards for system infrastructure and operational security, including physical, operational, and cyber-security practices.

Appendix E to LGIA

Commercial Operation Date

This Appendix E is a part of the LGIA between Transmission Provider and Interconnection Customer.

{Date}

{Transmission Provider Address}

Re: _____ Large Generating Facility

Dear: _____.

On {Date} {Interconnection Customer} has completed Trial Operation of Unit No. _____. This letter confirms that {Interconnection Customer} commenced Commercial Operation of Unit No. ____ at the Large Generating Facility, effective as of {Date plus one day}.

Thank you.

{Signature}

{Interconnection Customer Representative}

Appendix F to LGIA

Addresses for Delivery of Notices and Billings

Notices:

Transmission Provider:

{To be supplied.}

Interconnection Customer:

{To be supplied.}

Billings and Payments:

Transmission Provider:

{To be supplied.}

Interconnection Customer:

{To be supplied.}

Alternative Forms of Delivery of Notices (telephone, facsimile or email):

Transmission Provider:

{To be supplied.}

Interconnection Customer:

{To be supplied.}

APPENDIX G

Interconnection Requirements for a Wind Generating Plant

Appendix G sets forth requirements and provisions specific to a wind generating plant or a Generating Facility that contains a wind generating plant. All other requirements of this LGIA continue to apply to wind generating plant interconnections.

A. Technical Standards Applicable to a Wind Generating Plant

i. Low Voltage Ride-Through (LVRT) Capability

A wind generating plant shall be able to remain online during voltage disturbances up to the time periods and associated voltage levels set forth in the standard below. The LVRT standard provides for a transition period standard and a post-transition period standard.

Transition Period LVRT Standard

The transition period standard applies to wind generating plants subject to FERC Order 661 that have either: (i) interconnection agreements signed and filed with the Commission, filed with the Commission in unexecuted form, or filed with the Commission as non-conforming agreements between January 1, 2006 and December 31, 2006, with a scheduled in-service date no later than December 31, 2007, or (ii) wind generating turbines subject to a wind turbine procurement contract executed prior to December 31, 2005, for delivery through 2007.

1. Wind generating plants are required to remain in-service during three-phase faults with normal clearing (which is a time period of approximately 4–9 cycles) and single line to ground faults with delayed clearing, and subsequent post-fault voltage recovery to pre-fault voltage unless clearing the fault effectively disconnects the generator from the system. The clearing time requirement for a three-phase fault will be specific to the wind generating plant substation location, as determined by and documented by the transmission provider. The maximum clearing time the wind generating plant shall be required to withstand for a three-phase fault shall be 9 cycles at a voltage as low as 0.15 p.u., as measured at the high side of the wind generating plant step-up transformer (*i.e.* the transformer that steps the voltage up to the transmission interconnection voltage or "GSU"), after which, if the fault remains following the location-specific normal clearing time for three-phase faults, the wind generating plant may disconnect from the transmission system.

2. This requirement does not apply to faults that would occur between the wind generator terminals and the high side of the GSU or to faults that would result in a voltage lower than 0.15 per unit on the high side of the GSU serving the facility.

3. Wind generating plants may be tripped after the fault period if this action is intended as part of a special protection system.

4. Wind generating plants may meet the LVRT requirements of this standard by the performance of the generators or by installing additional equipment (*e.g.*, Static VAR

Compensator, etc.) within the wind generating plant or by a combination of generator performance and additional equipment.

5. Existing individual generator units that are, or have been, interconnected to the network at the same location at the effective date of the Appendix G LVRT Standard are exempt from meeting the Appendix G LVRT Standard for the remaining life of the existing generation equipment. Existing individual generator units that are replaced are required to meet the Appendix G LVRT Standard.

Post-transition Period LVRT Standard

All wind generating plants subject to FERC Order No. 661 and not covered by the transition period described above must meet the following requirements:

1. Wind generating plants are required to remain in-service during three-phase faults with normal clearing (which is a time period of approximately 4–9 cycles) and single line to ground faults with delayed clearing, and subsequent post-fault voltage recovery to prefault voltage unless clearing the fault effectively disconnects the generator from the system. The clearing time requirement for a three-phase fault will be specific to the wind generating plant substation location, as determined by and documented by the transmission provider. The maximum clearing time the wind generating plant shall be required to withstand for a three-phase fault shall be 9 cycles after which, if the fault remains following the location-specific normal clearing time for three-phase faults, the wind generating plant may disconnect from the transmission system. A wind generating plant shall remain interconnected during such a fault on the transmission system for a voltage level as low as zero volts, as measured at the high voltage side of the wind GSU.

2. This requirement does not apply to faults that would occur between the wind generator terminals and the high side of the GSU.

3. Wind generating plants may be tripped after the fault period if this action is intended as part of a special protection system.

4. Wind generating plants may meet the LVRT requirements of this standard by the performance of the generators or by installing additional equipment (*e.g.*, Static VAR Compensator) within the wind generating plant or by a combination of generator performance and additional equipment.

Existing individual generator units that are, or have been, interconnected to the network at the same location at the effective date of the Appendix G LVRT Standard are exempt from meeting the Appendix G LVRT Standard for the remaining life of the existing generation equipment. Existing individual generator units that are replaced are required to meet the Appendix G LVRT Standard.

ii. Power Factor Design Criteria (Reactive Power)

The following reactive power requirements apply only to a newly interconnecting wind generating plant that has executed a Facilities Study Agreement as of the effective date of the Final rule establishing the reactive power requirements for non-synchronous generators in S[ection] 9.6.1 of this LGIA (Order No.

827). A wind generating plant to which this provision applies shall maintain a power factor within the range of 0.95 leading to 0.95 lagging, measured at the Point of Interconnection as defined in this LGIA, if the Transmission Provider's [System Impact] Cluster Study shows that such a requirement is necessary to ensure safety or reliability. The power factor range standard can be met by using, for example, power electronics designed to supply this level of reactive capability 606 (taking into account any limitations due to voltage level, real power output, etc.) or fixed and switched capacitors if agreed to by the Transmission Provider, or a combination of the two. The Interconnection Customer shall not disable power factor equipment while the wind plant is in operation. Wind plants shall also be able to provide sufficient dynamic voltage support in lieu of the power system stabilizer and automatic voltage regulation at the generator excitation system if the System Impact Study shows this to be required for system safety or reliability.

iii. Supervisory Control and Data Acquisition (SCADA) Capability

The wind plant shall provide SCADA capability to transmit data and receive instructions from the Transmission Provider to protect system reliability. The Transmission Provider and the wind plant Interconnection Customer shall determine what SCADA information is essential for the proposed wind plant, taking into account the size of the plant and its characteristics, location, and importance in maintaining generation resource adequacy and transmission system reliability in its area.

Appendix H to LGIA

Operating Assumptions for Generating Facility

Check box if applicable []

Operating Assumptions:

{insert operating assumptions that reflect the charging behavior of the Generating Facility that includes at least one electric storage resource}

Appendix E: Pro Forma SGIP

Note: Deletions are in brackets and additions are in italics.

Section 1. Application

* * * * *

1.4 *Modification of the Interconnection Request*

Any modification to machine data or equipment configuration or to the interconnection site of the Small Generating Facility not agreed to in writing by the Transmission Provider and the Interconnection Customer may be deemed a withdrawal of the Interconnection Request and may require submission of a new Interconnection Request, unless proper notification of each Party by the other and a reasonable time to cure the problems created by the changes are undertaken. *Any such modification of the Interconnection Request must be accompanied by any resulting*

updates to the models described in Attachment 2 of this SGIP.

* * * * *

Section 3. Study Process

* * * * *

3.3 *Feasibility Study*

3.3.1 The feasibility study shall identify any potential adverse system impacts that would result from the interconnection of the Small Generating Facility.

3.3.2 A deposit of the lesser of 50 percent of the good faith estimated feasibility study costs or earnest money of \$1,000 may be required from the Interconnection Customer.

3.3.3 The scope of and cost responsibilities for the feasibility study are described in the attached feasibility study agreement (Attachment 6).

3.3.4 If the feasibility study shows no potential for adverse system impacts, the Transmission Provider shall send the Interconnection Customer a facilities study agreement, including an outline of the scope of the study and a non-binding good faith estimate of the cost to perform the study. If no additional facilities are required, the Transmission Provider shall send the Interconnection Customer an executable interconnection agreement within five Business Days.

3.3.5 If the feasibility study shows the potential for adverse system impacts, the review process shall proceed to the appropriate system impact study(s).

3.3.6 *The feasibility study shall evaluate static synchronous compensators, static VAR compensators, advanced power flow control devices, transmission switching, synchronous condensers, voltage source converters, advanced conductors, and tower lifting. Transmission Provider shall evaluate each identified alternative transmission technology and determine whether it should be used, consistent with Good Utility Practice and other applicable regulatory requirements. Transmission Provider shall include an explanation of the results of Transmission Provider's evaluation for each technology in the feasibility study report.*

3.4 *System Impact Study*

3.4.1 A system impact study shall identify and detail the electric system impacts that would result if the proposed Small Generating Facility were interconnected without project modifications or electric system modifications, focusing on the adverse system impacts identified in the feasibility study, or to study potential impacts, including but not limited to those identified in the scoping meeting. A system impact study shall evaluate the impact of the proposed interconnection on the reliability of the electric system.

3.4.2 If no transmission system impact study is required, but potential electric power Distribution System adverse system impacts are identified in the scoping meeting or shown in the feasibility study, a distribution system impact study must be performed. The Transmission Provider shall send the Interconnection Customer a distribution system impact study agreement within 15 Business Days of transmittal of the feasibility study report, including an outline of the scope of the study and a non-binding

good faith estimate of the cost to perform the study, or following the scoping meeting if no feasibility study is to be performed.

3.4.3 In instances where the feasibility study or the distribution system impact study shows potential for transmission system adverse system impacts, within five Business Days following transmittal of the feasibility study report, the Transmission Provider shall send the Interconnection Customer a transmission system impact study agreement, including an outline of the scope of the study and a non-binding good faith estimate of the cost to perform the study, if such a study is required.

3.4.4 If a transmission system impact study is not required, but electric power Distribution System adverse system impacts are shown by the feasibility study to be possible and no distribution system impact study has been conducted, [the]Transmission Provider shall send [the]Interconnection Customer a distribution system impact study agreement.

3.4.5 If the feasibility study shows no potential for transmission system or Distribution System adverse system impacts, the Transmission Provider shall send the Interconnection Customer either a facilities study agreement (Attachment 8), including an outline of the scope of the study and a non-binding good faith estimate of the cost to perform the study, or an executable interconnection agreement, as applicable.

3.4.6 In order to remain under consideration for interconnection, the Interconnection Customer must return executed system impact study agreements, if applicable, within 30 Business Days.

3.4.7 A deposit of the good faith estimated costs for each system impact study

may be required from the Interconnection Customer.

3.4.8 The scope of and cost responsibilities for a system impact study are described in the attached system impact study agreement.

3.4.9 Where transmission systems and Distribution Systems have separate owners, such as is the case with transmission-dependent utilities (“TDUs”)—whether investor-owned or not—the Interconnection Customer may apply to the nearest Transmission Provider (Transmission Owner, Regional Transmission Operator, or Independent Transmission Provider) providing transmission service to the TDU to request project coordination. Affected Systems shall participate in the study and provide all information necessary to prepare the study.

3.4.10 The system impact study shall evaluate static synchronous compensators, static VAR compensators, advanced power flow control devices, transmission switching, synchronous condensers, voltage source converters, advanced conductors, and tower lifting. Transmission Provider shall evaluate each identified alternative transmission technology and determine whether it should be used, consistent with Good Utility Practice and other applicable regulatory requirements. Transmission Provider shall include an explanation of the results of Transmission Provider’s evaluation for each technology in the system impact study report.

* * * * *

Attachment 2

Small Generator Interconnection Request

(Application Form)

* * * * *

Models for Non-synchronous Small Generating Facilities

For a non-synchronous Small Generating Facility, Interconnection Customer shall provide (1) a validated user-defined root mean squared (RMS) positive sequence dynamics model; (2) an appropriately parameterized generic library RMS positive sequence dynamics model, including model block diagram of the inverter control and plant control systems, as defined by the selection in Table 1 or a model otherwise approved by the Western Electricity Coordinating Council, that corresponds to Interconnection Customer’s Small Generating Facility; and (3) if applicable, a validated electromagnetic transient model if Transmission Provider performs an electromagnetic transient study as part of the interconnection study process. A user-defined model is a set of programming code created by equipment manufacturers or developers that captures the latest features of controllers that are mainly software based and represents the entities’ control strategies but does not necessarily correspond to any generic library model. Interconnection Customer must also demonstrate that the model is validated by providing evidence that the equipment behavior is consistent with the model behavior (e.g., an attestation from Interconnection Customer that the model accurately represents the entire Small Generating Facility; attestations from each equipment manufacturer that the user defined model accurately represents the component of the Small Generating Facility; or test data).

TABLE 1—ACCEPTABLE GENERIC LIBRARY RMS POSITIVE SEQUENCE DYNAMICS MODELS

GE PSLF	Siemens PSS/E*	PowerWorld simulator	Description
<i>pvd1</i>	DERAU1	PVD1	Distributed PV system model.
<i>der_a</i>	REGCAU1, REGCA1	DER_A	Distributed energy resource model.
<i>regc_a</i>	REGCBU1	REGC_A	Generator/converter model.
<i>regc_b</i>	WT1G1	REGC_B	Generator/converter model.
<i>wt1g</i>	WT2G1	WT1G and WT1G1	Wind turbine model for Type-1 wind turbines (conventional directly connected induction generator).
<i>wt2g</i>	WT2E1	WT2G and WT2G1	Generator model for generic Type-2 wind turbines.
<i>wt2e</i>	REECAU1, REECA1	WT2E and WT2E1	Rotor resistance control model for wound-rotor induction wind-turbine generator wt2g.
<i>reec_a</i>	REECCU1	REEC_A	Renewable energy electrical control model.
<i>reec_c</i>	REECDU1	REEC_C	Electrical control model for battery energy storage system.
<i>reec_d</i>	WT12T1	REEC_D	Renewable energy electrical control model.
<i>wt1t</i>	wt1p_b	WT1T and WT12T1	Wind turbine model for Type-1 wind turbines (conventional directly connected induction generator).
<i>wt1p_b</i>	WT12T1	WT12A1U_B	Generic wind turbine pitch controller for WTGs of Types 1 and 2.
<i>wt2t</i>	WTDTAU1, WTDTA1	WT2T	Wind turbine model for Type-2 wind turbines (directly connected induction generator wind turbines with an external rotor resistance).
<i>wtgt_a</i>	WTARAU1, WTARA1	WTGT_A	Wind turbine drive train model.
<i>wtga_a</i>	WTPTAU1, WTPTA1	WTGA_A	Simple aerodynamic model.
<i>wtgp_a</i>	WTTQAU1, WTTQA1	WTGPT_A	Wind Turbine Generator Pitch controller.
<i>wtgq_a</i>	WTGWGOAU	WTGTRQ_A	Wind Turbine Generator Torque controller.
<i>wtgwo_a</i>	WTGIBFFRA	WTGWGO_A	Supplementary control model for Weak Grids.
<i>wtgibfr_a</i>	WTPTBU1	WTGIBFFR_A	Inertial-base fast frequency response control.
<i>wtgp_b</i>	WTDTBU1	WTGPT_B	Wind Turbine Generator Pitch controller.
<i>wtgt_b</i>	Type 4: REPCAUI (v33), REPCA1 (v34) Type 3: REPCTAU1 (v33), REPCTA1 (v34).	WTGT_B	Drive train model.
<i>repc_a</i>	PLNTBU1	REPC_A	Power Plant Controller.
<i>repc_b</i>		REPC_B	Power Plant Level Controller for controlling several plants/devices. In regard to Siemens PSS/E*: Names of other models for interface with other devices: REA3XBU1, REAX4BU1—for interface with Type 3 and 4 renewable machines. SWSAXBU1—for interface with SVC (modeled as switched shunt in powerflow).

TABLE 1—ACCEPTABLE GENERIC LIBRARY RMS POSITIVE SEQUENCE DYNAMICS MODELS—Continued

GE PSLF	Siemens PSS/E*	PowerWorld simulator	Description
repc_c	REPCCU	REPC_C	SYNAXBU1—for interface with synchronous condenser. FCTAXBU1—for interface with FACTS device. Power plant controller.

* * * * *

Appendix F: Pro Forma SGIA

Note: Deletions are in brackets and additions are in *italics*.

* * * * *

Article 1. Scope and Limitations of Agreement

* * * * *

1.5 Responsibilities of the Parties

1.5.1 The Parties shall perform all obligations of this Agreement in accordance with all Applicable Laws and Regulations, Operating Requirements, and Good Utility Practice.

1.5.2 The Interconnection Customer shall construct, interconnect, operate and maintain its Small Generating Facility and construct, operate, and maintain its Interconnection Facilities in accordance with the applicable manufacturer's recommended maintenance schedule, and in accordance with this Agreement, and with Good Utility Practice.

1.5.3 The Transmission Provider shall construct, operate, and maintain its Transmission System and Interconnection Facilities in accordance with this Agreement, and with Good Utility Practice.

1.5.4 The Interconnection Customer agrees to construct its facilities or systems in accordance with applicable specifications that meet or exceed those provided by the National Electrical Safety Code, the American National Standards Institute, IEEE, Underwriter's Laboratory, and Operating Requirements in effect at the time of construction and other applicable national and state codes and standards. The Interconnection Customer agrees to design, install, maintain, and operate its Small Generating Facility so as to reasonably minimize the likelihood of a disturbance adversely affecting or impairing the system or equipment of the Transmission Provider and any Affected Systems.

1.5.5 Each Party shall operate, maintain, repair, and inspect, and shall be fully responsible for the facilities that it now or subsequently may own unless otherwise specified in the Attachments to this Agreement. Each Party shall be responsible for the safe installation, maintenance, repair and condition of their respective lines and appurtenances on their respective sides of the point of change of ownership. The Transmission Provider and the Interconnection Customer, as appropriate, shall provide Interconnection Facilities that adequately protect the Transmission Provider's Transmission System, personnel, and other persons from damage and injury. The allocation of responsibility for the design, installation, operation, maintenance and ownership of Interconnection Facilities

shall be delineated in the Attachments to this Agreement.

1.5.6 The Transmission Provider shall coordinate with all Affected Systems to support the interconnection.

1.5.7 The Interconnection Customer shall ensure "frequency ride through" capability and "voltage ride through" capability of its Small Generating Facility. The Interconnection Customer shall enable these capabilities such that its Small Generating Facility shall not disconnect automatically or instantaneously from the system or equipment of the Transmission Provider and any Affected Systems for a defined under-frequency or over-frequency condition, or an under-voltage or over-voltage condition, as tested pursuant to S[s]ection 2.1 of this agreement. The defined conditions shall be in accordance with Good Utility Practice and consistent with any standards and guidelines that are applied to other generating facilities in the Balancing Authority Area on a comparable basis. The Small Generating Facility's protective equipment settings shall comply with the Transmission Provider's automatic load-shed program. The Transmission Provider shall review the protective equipment settings to confirm compliance with the automatic load-shed program. The term "ride through" as used herein shall mean the ability of a Small Generating Facility to stay connected to and synchronized with the system or equipment of the Transmission Provider and any Affected Systems during system disturbances within a range of conditions, in accordance with Good Utility Practice and consistent with any standards and guidelines that are applied to other generating facilities in the Balancing Authority Area on a comparable basis. The term "frequency ride through" as used herein shall mean the ability of a Small Generating Facility to stay connected to and synchronized with the system or equipment of the Transmission Provider and any Affected Systems during system disturbances within a range of under-frequency and over-frequency conditions, in accordance with Good Utility Practice and consistent with any standards and guidelines that are applied to other generating facilities in the Balancing Authority Area on a comparable basis. The term "voltage ride through" as used herein shall mean the ability of a Small Generating Facility to stay connected to and synchronized with the system or equipment of the Transmission Provider and any Affected Systems during system disturbances within a range of under-voltage and over-voltage conditions, in accordance with Good Utility Practice and consistent with any standards and guidelines that are applied to other generating facilities in the Balancing Authority Area on a comparable basis. *For abnormal frequency conditions and voltage conditions within the "no trip zone" defined*

by Reliability Standard PRC-024-3 or successor mandatory ride through Applicable Reliability Standards, the non-synchronous Small Generating Facility must ensure that, within any physical limitations of the Small Generating Facility, its control and protection settings are configured or set to (1) continue active power production during disturbance and post disturbance periods at pre-disturbance levels unless providing primary frequency response or fast frequency response; (2) minimize reductions in active power and remain within dynamic voltage and current limits, if reactive power protection mode is enabled, unless providing primary frequency response or fast frequency response; (3) not artificially limit dynamic reactive power capability during disturbances; and (4) return to pre-disturbance active power levels without artificial ramp rate limits if active power is reduced, unless providing primary frequency response or fast frequency response.

1.6 Parallel Operation Obligations

Once the Small Generating Facility has been authorized to commence parallel operation, the Interconnection Customer shall abide by all rules and procedures pertaining to the parallel operation of the Small Generating Facility in the applicable [control area] *Balancing Authority Area*, including, but not limited to: (1) the rules and procedures concerning the operation of generation set forth in the Tariff or by the applicable system operator(s) for the Transmission Provider's Transmission System and; (2) the Operating Requirements set forth in Attachment 5 of this Agreement.

* * * * *

1.8 Reactive Power and Primary Frequency Response**1.8.1 Power Factor Design Criteria**

1.8.1.1 *Synchronous Generation.* The Interconnection Customer shall design its Small Generating Facility to maintain a composite power delivery at continuous rated power output at the Point of Interconnection at a power factor within the range of 0.95 leading to 0.95 lagging, unless the Transmission Provider has established different requirements that apply to all similarly situated synchronous generators in the [control area] *Balancing Authority Area* on a comparable basis.

1.8.1.2 *Non-Synchronous Generation.* The Interconnection Customer shall design its Small Generating Facility to maintain a composite power delivery at continuous rated power output at the high-side of the generator substation at a power factor within the range of 0.95 leading to 0.95 lagging, unless the Transmission Provider has established a different power factor range that applies to all similarly situated non-

synchronous generators in the [control area] *Balancing Authority Area* on a comparable basis. This power factor range standard shall be dynamic and can be met using, for example, power electronics designed to supply this level of reactive capability (taking into account any limitations due to voltage level, real power output, etc.) or fixed and switched capacitors, or a combination of the two. This requirement shall only apply to newly interconnecting non-synchronous generators that have not yet executed a Facilities Study Agreement as of the effective date of the Final rule establishing this requirement (Order No. 827).

1.8.2 The Transmission Provider is required to pay the Interconnection Customer for reactive power that the Interconnection Customer provides or absorbs from the Small Generating Facility when the Transmission Provider requests the Interconnection Customer to operate its Small Generating Facility outside the range specified in A[a]rticle 1.8.1. In addition, if the Transmission Provider pays its own or affiliated generators for reactive power service within the specified range, it must also pay the Interconnection Customer.

1.8.3 Payments shall be in accordance with the Interconnection Customer's applicable rate schedule then in effect unless the provision of such service(s) is subject to a regional transmission organization or independent system operator FERC-approved rate schedule. To the extent that no rate schedule is in effect at the time the Interconnection Customer is required to provide or absorb reactive power under this Agreement, the Parties agree to expeditiously file such rate schedule and agree to support any request for waiver of the Commission's prior notice requirement in order to compensate the Interconnection Customer from the time service commenced.

1.8.4 *Primary Frequency Response.* Interconnection Customer shall ensure the primary frequency response capability of its Small Generating Facility by installing, maintaining, and operating a functioning governor or equivalent controls. The term "functioning governor or equivalent controls" as used herein shall mean the required hardware and/or software that provides frequency responsive real power control with the ability to sense changes in system frequency and autonomously adjust the Small Generating Facility's real power output in accordance with the droop and deadband parameters and in the direction needed to correct frequency deviations. Interconnection Customer is required to install a governor or equivalent controls with the capability of operating: (1) with a maximum 5 percent droop and ± 0.036 Hz deadband; or (2) in accordance with the relevant droop, deadband, and timely and sustained response settings from an approved [NERC] *Electric Reliability Organization* [R]reliability [S]standard providing for equivalent or more stringent parameters. The droop characteristic shall be: (1) based on the nameplate capacity of the Small Generating Facility, and shall be linear in the range of frequencies between 59 to 61 Hz that are outside of the deadband parameter; or (2) based on an approved [NERC] *Electric Reliability*

Organization [R]reliability [S]standard providing for an equivalent or more stringent parameter. The deadband parameter shall be: the range of frequencies above and below nominal (60 Hz) in which the governor or equivalent controls is not expected to adjust the Small Generating Facility's real power output in response to frequency deviations. The deadband shall be implemented: (1) without a step to the droop curve, that is, once the frequency deviation exceeds the deadband parameter, the expected change in the Small Generating Facility's real power output in response to frequency deviations shall start from zero and then increase (for under-frequency deviations) or decrease (for over-frequency deviations) linearly in proportion to the magnitude of the frequency deviation; or (2) in accordance with an approved [NERC] *Electric Reliability Organization* [R]reliability [S]standard providing for an equivalent or more stringent parameter. Interconnection Customer shall notify Transmission Provider that the primary frequency response capability of the Small Generating Facility has been tested and confirmed during commissioning. Once Interconnection Customer has synchronized the Small Generating Facility with the Transmission System, Interconnection Customer shall operate the Small Generating Facility consistent with the provisions specified in Sections 1.8.4.1 and 1.8.4.2 of this Agreement. The primary frequency response requirements contained herein shall apply to both synchronous and non-synchronous Small Generating Facilities.

1.8.4.1 *Governor or Equivalent Controls.* Whenever the Small Generating Facility is operated in parallel with the Transmission System, Interconnection Customer shall operate the Small Generating Facility with its governor or equivalent controls in service and responsive to frequency. Interconnection Customer shall: (1) in coordination with Transmission Provider and/or the relevant [b]Balancing [a]Authority, set the deadband parameter to: (1) a maximum of ± 0.036 Hz and set the droop parameter to a maximum of 5 percent; or (2) implement the relevant droop and deadband settings from an approved [NERC] *Electric Reliability Organization* [R]reliability [S]standard that provides for equivalent or more stringent parameters. Interconnection Customer shall be required to provide the status and settings of the governor or equivalent controls to Transmission Provider and/or the relevant [b]Balancing [a]Authority upon request. If Interconnection Customer needs to operate the Small Generating Facility with its governor or equivalent controls not in service, Interconnection Customer shall immediately notify Transmission Provider and the relevant [b]Balancing [a]Authority, and provide both with the following information: (1) the operating status of the governor or equivalent controls (*i.e.*, whether it is currently out of service or when it will be taken out of service); (2) the reasons for removing the governor or equivalent controls from service; and (3) a reasonable estimate of when the governor or equivalent controls will be returned to service. Interconnection Customer shall make Reasonable Efforts to return its governor or equivalent controls into

service as soon as practicable.

Interconnection Customer shall make Reasonable Efforts to keep outages of the Small Generating Facility's governor or equivalent controls to a minimum whenever the Small Generating Facility is operated in parallel with the Transmission System.

1.8.4.2 *Timely and Sustained Response.* Interconnection Customer shall ensure that the Small Generating Facility's real power response to sustained frequency deviations outside of the deadband setting is automatically provided and shall begin immediately after frequency deviates outside of the deadband, and to the extent the Small Generating Facility has operating capability in the direction needed to correct the frequency deviation. Interconnection Customer shall not block or otherwise inhibit the ability of the governor or equivalent controls to respond and shall ensure that the response is not inhibited, except under certain operational constraints including, but not limited to, ambient temperature limitations, physical energy limitations, outages of mechanical equipment, or regulatory requirements. The Small Generating Facility shall sustain the real power response at least until system frequency returns to a value within the deadband setting of the governor or equivalent controls. A Commission-approved Reliability Standard with equivalent or more stringent requirements shall supersede the above requirements.

1.8.4.3 *Exemptions.* Small Generating Facilities that are regulated by the United States Nuclear Regulatory Commission shall be exempt from Sections 1.8.4, 1.8.4.1, and 1.8.4.2 of this Agreement. Small Generating Facilities that are behind the meter generation that is sized-to-load (*i.e.*, the thermal load and the generation are near-balanced in real-time operation and the generation is primarily controlled to maintain the unique thermal, chemical, or mechanical output necessary for the operating requirements of its host facility) shall be required to install primary frequency response capability in accordance with the droop and deadband capability requirements specified in Section 1.8.4, but shall be otherwise exempt from the operating requirements in Sections 1.8.4, 1.8.4.1, 1.8.4.2, and 1.8.4.4 of this Agreement.

1.8.4.4 *Electric Storage Resources.* Interconnection Customer interconnecting an electric storage resource shall establish an operating range in Attachment 5 of its SGIA that specifies a minimum state of charge and a maximum state of charge between which the electric storage resource will be required to provide primary frequency response consistent with the conditions set forth in Sections 1.8.4, 1.8.4.1, 1.8.4.2 and 1.8.4.3 of this Agreement. Attachment 5 shall specify whether the operating range is static or dynamic, and shall consider: (1) the expected magnitude of frequency deviations in the interconnection; (2) the expected duration that system frequency will remain outside of the deadband parameter in the interconnection; (3) the expected incidence of frequency deviations outside of the deadband parameter in the interconnection; (4) the physical capabilities of the electric

storage resource; (5) operational limitations of the electric storage resource due to manufacturer specifications; and (6) any other relevant factors agreed to by Transmission Provider and Interconnection Customer, and in consultation with the relevant transmission owner or [b]Balancing [a]Authority as appropriate. If the operating range is dynamic, then Attachment 5 must establish how frequently the operating range will be reevaluated and the factors that may be considered during its reevaluation.

Interconnection Customer's electric storage resource is required to provide timely and sustained primary frequency response consistent with Section 1.8.4.2 of this Agreement when it is online and dispatched to inject electricity to the Transmission System and/or receive electricity from the Transmission System. This excludes circumstances when the electric storage resource is not dispatched to inject electricity to the Transmission System and/or dispatched to receive electricity from the Transmission System. If Interconnection Customer's electric storage resource is charging at the time of a frequency deviation outside of its deadband parameter, it is to increase (for over-frequency deviations) or decrease (for under-frequency deviations) the rate at which it is charging in accordance with its droop parameter. Interconnection Customer's electric storage resource is not required to change from charging to discharging, or vice versa, unless the response necessitated by the droop and deadband settings requires it to do so and it is technically capable of making such a transition.

* * * * *

Attachment 1

Glossary of Terms

Affected System—An electric system other than the Transmission Provider's Transmission System that may be affected by the proposed interconnection.

Applicable Laws and Regulations—All duly promulgated applicable federal, state and local laws, regulations, rules, ordinances, codes, decrees, judgments, directives, or judicial or administrative orders, permits and other duly authorized actions of any Governmental Authority.

Balancing Authority shall mean an entity that integrates resource plans ahead of time, maintains demand and resource balance within a Balancing Authority Area, and supports interconnection frequency in real time.

Balancing Authority Area shall mean the collection of generation, transmission, and loads within the metered boundaries of the Balancing Authority. The Balancing Authority maintains load-resource balance within this area.

Business Day—Monday through Friday, excluding Federal Holidays.

Default—The failure of a breaching Party to cure its breach under the Small Generator Interconnection Agreement.

Distribution System—The Transmission Provider's facilities and equipment used to transmit electricity to ultimate usage points such as homes and industries directly from

nearby generators or from interchanges with higher voltage transmission networks which transport bulk power over longer distances. The voltage levels at which Distribution Systems operate differ among areas.

Distribution Upgrades—The additions, modifications, and upgrades to the Transmission Provider's Distribution System at or beyond the Point of Interconnection to facilitate interconnection of the Small Generating Facility and render the transmission service necessary to effect the Interconnection Customer's wholesale sale of electricity in interstate commerce. Distribution Upgrades do not include Interconnection Facilities.

Good Utility Practice—Any of the practices, methods and acts engaged in or approved by a significant portion of the electric industry during the relevant time period, or any of the practices, methods and acts which, in the exercise of reasonable judgment in light of the facts known at the time the decision was made, could have been expected to accomplish the desired result at a reasonable cost consistent with good business practices, reliability, safety and expedition. Good Utility Practice is not intended to be limited to the optimum practice, method, or act to the exclusion of all others, but rather to be acceptable practices, methods, or acts generally accepted in the region.

Governmental Authority—Any federal, state, local or other governmental regulatory or administrative agency, court, commission, department, board, or other governmental subdivision, legislature, rulemaking board, tribunal, or other governmental authority having jurisdiction over the Parties, their respective facilities, or the respective services they provide, and exercising or entitled to exercise any administrative, executive, police, or taxing authority or power; provided, however, that such term does not include the Interconnection Customer, the Interconnection Provider, or any Affiliate thereof.

Interconnection Customer—Any entity, including the Transmission Provider, the Transmission Owner or any of the affiliates or subsidiaries of either, that proposes to interconnect its Small Generating Facility with the Transmission Provider's Transmission System.

Interconnection Facilities—The Transmission Provider's Interconnection Facilities and the Interconnection Customer's Interconnection Facilities. Collectively, Interconnection Facilities include all facilities and equipment between the Small Generating Facility and the Point of Interconnection, including any modification, additions or upgrades that are necessary to physically and electrically interconnect the Small Generating Facility to the Transmission Provider's Transmission System. Interconnection Facilities are sole use facilities and shall not include Distribution Upgrades or Network Upgrades.

Interconnection Request—The Interconnection Customer's request, in accordance with the Tariff, to interconnect a new Small Generating Facility, or to increase the capacity of, or make a Material Modification to the operating characteristics

of, an existing Small Generating Facility that is interconnected with the Transmission Provider's Transmission System.

Material Modification—A modification that has a material impact on the cost or timing of any Interconnection Request with a later queue priority date.

Network Upgrades—Additions, modifications, and upgrades to the Transmission Provider's Transmission System required at or beyond the point at which the Small Generating Facility interconnects with the Transmission Provider's Transmission System to accommodate the interconnection of the Small Generating Facility with the Transmission Provider's Transmission System. Network Upgrades do not include Distribution Upgrades.

Operating Requirements—Any operating and technical requirements that may be applicable due to Regional Transmission Organization, Independent System Operator, [control area]Balancing Authority Area, or [the]Transmission Providers requirements, including those set forth in the Small Generator Interconnection Agreement.

Party or Parties—The Transmission Provider, Transmission Owner, Interconnection Customer or any combination of the above.

Point of Interconnection—The point where the Interconnection Facilities connect with the Transmission Provider's Transmission System.

Reasonable Efforts—With respect to an action required to be attempted or taken by a Party under the Small Generator Interconnection Agreement, efforts that are timely and consistent with Good Utility Practice and are otherwise substantially equivalent to those a Party would use to protect its own interests.

Small Generating Facility—The Interconnection Customer's device for the production and/or storage for later injection of electricity identified in the Interconnection Request, but shall not include the Interconnection Customer's Interconnection Facilities.

Tariff—The Transmission Provider or Affected System's Tariff through which open access transmission service and Interconnection Service are offered, as filed with the FERC, and as amended or supplemented from time to time, or any successor tariff.

Transmission Owner—The entity that owns, leases or otherwise possesses an interest in the portion of the Transmission System at the Point of Interconnection and may be a Party to the Small Generator Interconnection Agreement to the extent necessary.

Transmission Provider—The public utility (or its designated agent) that owns, controls, or operates transmission or distribution facilities used for the transmission of electricity in interstate commerce and provides transmission service under the Tariff. The term Transmission Provider should be read to include the Transmission Owner when the Transmission Owner is separate from the Transmission Provider.

Transmission System—The facilities owned, controlled or operated by the

Transmission Provider or the Transmission Owner that are used to provide transmission service under the Tariff.

Upgrades—The required additions and modifications to the Transmission Provider's Transmission System at or beyond the Point of Interconnection. Upgrades may be Network Upgrades or Distribution Upgrades. Upgrades do not include Interconnection Facilities.

* * * * *

Improvements to Generator Interconnection—Docket No. RM22-14-000

Procedures and Agreements

DANLY, Commissioner, *concurring*:

1. I concur in the issuance of today's final rule. I write separately to state that, while I continue to harbor misgivings about the Commission's power to implement far-reaching, uniform policies based on our authority under FPA section 206,¹ I am satisfied on this record that existing interconnection procedures in both RTO and non-RTO regions have been shown to be unjust and unreasonable, and that we take today's action consistent with the standards articulated in precedent.² Though I am not convinced that this precedent will ultimately be proven correct in declaring that "the Commission may rely on 'generic' or 'general' findings of a systemic problem to support imposition of an industry-wide solution," the Commission is entitled to act under prevailing case law.³

2. I also agree that the relatively narrow reforms contemplated in this final rule appear, based on this record, to be a just and reasonable replacement rate. I am pleased that most of that which I considered to be the most problematic elements in the Notice of Proposed Rulemaking have been excluded from this rule.⁴ I also remind parties of the availability of "the independent entity variation standard for regional transmission organizations (RTO) and independent system operators (ISO) and the consistent with or superior to standard for non-RTO/ISO transmission providers" should they choose to seek variations from these rules.⁵

3. While I vote to approve today's order, I will also thoroughly review any requests for rehearing, particularly to the extent to which parties to the proceeding wish to advance arguments that we have exceeded our authority under FPA section 206, or that we have failed to carry our evidentiary burden, either generally, or in a sufficient number of specific cases that our order amounts to an unlawful exercise of our powers.

¹ 16 U.S.C. 824e.

² *Improvements to Generator Interconnection Procedures & Agreements*, 184 FERC ¶ 61,054, at P 57 & n.149 (2023) (Interconnection Rule) (citing *S.C. Pub. Serv. Auth. v. FERC*, 762 F.3d 41, 67 (D.C. Cir. 2014) (quoting *Interstate Nat. Gas Ass'n v. FERC*, 285 F.3d 18, 37 (D.C. Cir. 2002))).

³ *Id.*

⁴ *Improvements to Generator Interconnection Procedures & Agreements*, 179 FERC ¶ 61,194 (2022) (Danly, Comm'r, concurring at PP 6–10) (NOPR Concurrence).

⁵ Interconnection Rule, 184 FERC ¶ 61,054 at P 10 (citation omitted).

4. I would have preferred to receive section 205⁶ filings from utilities proposing interconnection reforms—and indeed we have received and ruled upon a number of such filings. Failing that, I would have preferred for the Commission or interested parties to have initiated FPA section 206 complaints against the RTOs or other entities with interconnection delays, rather than to have proceeded generically in an effort to establish uniformity.⁷ However, my preferences do not make this rule unlawful, and I am satisfied that today's rule is consistent with our legal obligations.

For these reasons, I respectfully concur.

James P. Danly,
Commissioner.

Improvements to Generator Interconnection—Docket No. RM22-14-000

Procedures and Agreements

CLEMENTS, Commissioner, *concurring*:

1. As the findings of this final rule illustrate, our nation is facing a grid infrastructure crisis. Five years ago, the Commission issued Order No. 845 in an effort to improve interconnection queue delays, noting that "despite Commission efforts to improve the interconnection process . . . many interconnection customers experience delays, and some interconnection queues have significant backlogs and long timelines."¹ Unfortunately, the same observation can be made today, only the problem has gotten far worse.² As of the end of 2022, a staggering 10,000 projects representing over 2,000 GW of potential generation and storage capacity are stuck in line to connect to the grid.³ That is nearly double the 1,250 GW of total installed capacity in the United States today.⁴ Wait times have "increased markedly," with Lawrence Berkeley National Lab reporting that "[t]he typical project built in 2022 took 5 years from the interconnection request to commercial operations, compared to 3 years in 2015 and [less than] 2 years in 2008."⁵ Meanwhile, interconnection costs have increased significantly.⁶ Project completion rates are very low,⁷ and late-stage withdrawal is becoming more common.⁸ In addition, the

⁶ 16 U.S.C. 824d.

⁷ See NOPR Concurrence at PP 1, 4.

¹ *Reform of Generator Interconnection Procs. & Agreements*, Order No. 845, 83 FR 21342 (May 9, 2018), 163 FERC ¶ 61,043, at P 24 (2018), *order on reh'g*, Order No. 845–A, 166 FERC ¶ 61,137, 84 FR 8156 (Mar. 6, 2019), *order on reh'g*, Order No. 845–B, 168 FERC ¶ 61,092 (2019).

² See *Improvements to Generator Interconnection Procedures and Agreements*, Order No. 2023, 184 FERC ¶ 61,054, at PP 37–40 (2023) [hereinafter Final Rule].

³ Joseph Rand et al., Lawrence Berkeley Nat'l Lab'y, *Queued Up: Characteristics of Power Plants Seeking Transmission Interconnection As of the End of 2022*, at 7–8 (Apr. 2023), https://emp.lbl.gov/sites/default/files/queued_up_2022_04-06-2023.pdf [hereinafter *Queued Up* 2023].

⁴ *Id.* at 10.

⁵ *Id.* at 3.

⁶ See Final rule at P 41 (detailing interconnection cost increases seen across different regions).

⁷ See *Queued Up* 2023 at 18–20.

⁸ *Id.* at 22.

typical timespan between the execution of a project's interconnection agreement and its commercial operations date has also increased, from roughly 17 months for projects built between 2007–2014 to around 22 months for projects built between 2015–2022.⁹

2. Ultimately, the dysfunction of the interconnection process harms consumers. It prevents low-cost generation from coming online that could have reduced the cost of electricity,¹⁰ and it harms reliability. Several of the nation's largest grid operators have stated that they could face resource adequacy problems if new resource entry does not occur rapidly enough to match the pace of resource retirements.¹¹ Given these challenges and their attendant impacts on consumers, I enthusiastically support this final rule, which includes a number of helpful reforms that will improve interconnection processes across the country. The bulk of these reforms will widely extend proven best practices to utilities around the country.

3. What we have learned through consideration of comments to and stakeholder engagement about the Commission's Notice of Proposed Rulemaking, however, is that while this rule can be expected to improve matters, more will be necessary to solve the problem. What was perhaps considered a straightforward kitchen renovation has become more complicated. After we have removed the cabinets and taken out the drywall, we have discovered outdated wires, rusted pipes and cracks in the foundation. None of these additional challenges are insurmountable, but they are in some ways more fundamental to getting that modern, working kitchen up and running.

4. I therefore write separately to highlight some of the remaining issues and potential solutions parties have brought forward that may address the remainder of the full interconnection reform challenge, as well as to encourage stakeholders to remain focused on taking additional critical steps toward addressing these issues.

5. I do not suggest that solving the remaining challenges related to interconnection will be easy. The record

⁹ *Id.* at 30.

¹⁰ See, e.g., T. Bruce Tsuchida et al., The Brattle Grp., *Unlocking the Queue with Grid-Enhancing Technologies: Case Study of the Southwest Power Pool* at 9 (Feb. 1, 2021), https://watt-transmission.org/wp-content/uploads/2021/02/Brattle_Unlocking-the-Queue-with-Grid-Enhancing-Technologies_Final-Report_Public-Version.pdf#90 (estimating that integrating 2,670 MW of new generation in the Southwest Power Pool would yield annual production cost savings of \$175 million).

¹¹ See PJM Interconnection, LLC, *Energy Transition in PJM: Resource Retirements, Replacements & Risks* at 2 (Feb. 24, 2023), <https://www.pjm.com/marketing-and-regulatory/energy-transition-in-pjm-resource-retirements-replacements-and-risks.ashx>; Midcontinent Indep. Sys. Operator, *2022 Regional Resource Assessment* at 4, 20 (Nov. 2022), <https://cdn.misoenergy.org/2022%20Regional%20Resource%20Assessment%20Report627163.pdf>; California Indep. Sys. Operator, *Summer Loads and Resources Assessment* at 20 (May 18, 2022), <http://www.caiso.com/Documents/2022-Summer-Loads-and-Resources-Assessment.pdf>.

reveals quite the opposite. A comprehensive solution set will require out-of-the-box thinking in some areas and continued incremental improvements in others.

6. Fortunately, we have received many thoughtful suggestions for further reforms, which serve as the seeds for future solutions. Below, I discuss two categories of promising ideas meriting further discussion: (1) deeper reforms that get at some of the remaining fundamental challenges with interconnection processes; and (2) additional nuts and bolts changes that could enhance the effectiveness of a variety of interconnection processes, but which were not part of the proposal giving rise to this final rule.

7. I urge stakeholders to examine these and related suggestions, and for transmission planners to adopt regionally appropriate solutions beyond those required by this final rule.

I. Deeper reforms

8. In considering interconnection processes across the country, twin challenges emerge as the most fundamental problems. First, interconnection studies initially examine clusters of projects that often bear little resemblance to what ultimately interconnects to the system. They rely on a long and painful process of attrition to arrive at a final set of projects along with corresponding network upgrades.

9. More specifically, processes that rely solely on interconnection applications to determine study scope, and which require substantial study work for each customer based on inputs that depend on other projects in the queue, have become overwhelmed. For example, S&P reports that the California Independent System Operator (CAISO) received more than 350 GW of projects in its latest application window, driving its total queue to over 500 GW.¹² Meanwhile, the Midcontinent Independent System Operator's (MISO) queue has ballooned to 339 GW, while PJM Interconnection, LLC's (PJM) has risen to 298 GW, both comfortably greater than the present installed capacity of either region.¹³ According to a recent CAISO stakeholder presentation, "[t]he massive increase in interconnection requests seeking to meet the accelerated cadence of resource development . . . has overwhelmed critical planning and engineering resources across the industry. . . . The current generator interconnection processes simply cannot efficiently accommodate the latest level of

interconnection requests received."¹⁴ Other queues are similarly overwhelmed.¹⁵

10. Second, project developers face enormous cost uncertainty.¹⁶ Initial study results may be far different from final costs because the number of projects reaching the facilities study stage (the final stage before the execution of a generator interconnection agreement) can be far fewer than those earlier examined in the cluster study stage. As CAISO observed in a recent stakeholder presentation, its "[s]tudy results lose accuracy, meaning and utility when the level of cluster [Interconnection Resource] capacity [is] multiple times the existing or planned transmission capacity for an area."¹⁷

11. Today's final rule will help to ameliorate these problems. In particular, the rule's site control requirements,¹⁸ requirement for an interconnection customer to select a definitive point of interconnection,¹⁹ commercial readiness requirements,²⁰ and withdrawal penalty framework²¹ will each contribute to more streamlined study clusters. As we have learned through this proceeding, however, they will likely be inadequate, on their own, to fully solve these deep challenges.²²

12. In my estimation, the record of this proceeding, as well as recent stakeholder

initiatives, suggest several options for further improvement. They are not necessarily exclusive of one another, and appropriate application may depend on the particular regional context. They include: (1) linking the interconnection process to proactive transmission system planning; (2) in applicable regions, aligning the interconnection process more closely with competitive resource solicitations; and (3) transitioning to a "focused" interconnection process or "connect and manage" approach for all energy-only resources.

A. Link The Interconnection Process to Proactive Transmission System Planning

13. Foundationally, it should be acknowledged that for interconnection reform to succeed, holistic, forward-looking transmission planning, as included in the Commission's notice of proposed rulemaking on regional planning and cost allocation,²³ must also succeed. Interconnection processes are overloaded in part because they are being relied on to build out core transmission system infrastructure that should be considered in regional planning processes. We know interconnection processes were not intended for, and are ill suited to perform, this task. As a coalition of consumer groups and the R Street Institute argues in a recent letter to the Commission, "[t]he cost of network upgrades can be dramatically reduced through proactive regional transmission planning, which enables major reductions in [Generator Interconnection] requirements and delays."²⁴ Even prior to the adoption of any final rule in the Commission's regional transmission planning proceeding, individual transmission providers can make significant strides toward the cost-effective construction of new transmission infrastructure via regionally tailored proposals and initiatives.²⁵

14. There may also be opportunities to streamline the interconnection process by more closely linking it to the transmission system planning process,²⁶ or to carry out forward-looking interconnection studies driven by a more holistic assessment of interconnection needs.

15. Southwest Power Pool (SPP) and its stakeholders have embarked on a potentially promising initiative along these lines, which proposes a "Consolidated Planning Process" that would connect SPP's interconnection

¹⁴ CAISO, *2023 Interconnection Process Enhancements: Summary of June 20 & 21 Track 2 Working Group Meeting—Revised Principles and Problem Statements 1 and 2*, at 4 (June 23, 2023), <http://www.caiso.com/InitiativeDocuments/Revised-Principles-and-Problem-Statements-Interconnection-Process-Enhancements-2023-Track%202-Jun%2020-212023.pdf>.

¹⁵ See Queued Up 2023 at 9 (showing very large amounts of queue capacity across several regions).

¹⁶ See Final rule at P 43 ("Cost uncertainty poses an especially significant obstacle because interconnection customers may not be able to finance substantial increases in unexpected interconnection costs."). For example, in one relatively recent interconnection cluster in MISO, the preliminary system impact study estimated \$3.2 billion in network upgrades for 31 projects, but that estimate was cut to only \$330 million by Decision Point I after more than half of the projects withdrew. See *Midcontinent Indep. Sys. Operator*, 169 FERC ¶ 61,173, at P 11 (2019).

¹⁷ CAISO, *2023 Interconnection Process Enhancements Track 2 Working Group* at 10 (July 11, 2023), <http://www.caiso.com/InitiativeDocuments/Presentation-Interconnection-Process-Enhancements-2023-Track-2-Working-Group-Jul112023.pdf>.

¹⁸ See Final rule at PP 583–612.

¹⁹ *Id.* at PP 200–03.

²⁰ *Id.* at PP 690–707.

²¹ *Id.* at PP 780–813].

²² The Arizona Corporation Commission, for example, argues that "'first-ready' queue reforms that are not explicitly linked to an effective rationing process will likely fail to help resolve the growing backlog. Some mechanism to prioritize projects and allocate scarce interconnection access to the highest quality projects is likely needed." Arizona Commission Initial Comments at 1–2. Similarly, a coalition of consumer groups and the R Street Institute argues that the Commission's notice of proposed rulemaking in this proceeding "leaves many critical reforms unresolved." R Street Institute et al. June 8, 2023 Comments in Support of Generator Interconnection Reform Under RM22–14, at 2. See also Cypress Creek Initial Comments at 12 (arguing that "a cluster-based approach alone, without further changes, will not provide adequate reform").

²³ See *Building for the Future Through Elec. Reg'l Transmission Planning & Cost Allocation & Generator Interconnection*, 179 FERC ¶ 61,028 (2022).

²⁴ R Street Institute et al. June 8, 2023 Comments in Support of Generator Interconnection Reform Under RM22–14, at 2.

²⁵ See, e.g., MISO, *MTEP21 Report Addendum: Long Range Transmission Planning Tranche 1 Executive Summary* at 1 (2022), <https://cdn.misoenergy.org/MTEP21%20Addendum-LRTP%20Tranche%201%20Report%20with%20Executive%20Summary%20625790.pdf> (describing a proposed "portfolio of 18 transmission projects located in the MISO Midwest Subregions with a total investment of \$10.3 billion, and benefit-to-cost ratios average of 2.6").

²⁶ See, e.g., AEE Initial Comments at 10–13 (advocating for a closer linkage between transmission planning and generator interconnection).

¹² Garrett Hering, *California ISO Tackles 'Broken' Interconnection Process as Queue Tops 500 GW*, S&P Global (July 19, 2023); see also CAISO, *Cluster 15 Interconnection Requests*, <http://www.caiso.com/planning/Pages/GeneratorInterconnection/Default.aspx> (last visited July 26, 2023).

¹³ Queued Up 2023 at 9–10.

process to its regional transmission planning process.²⁷ Similarly, CAISO is seeking to “[p]rioritize interconnection in zones where transmission capacity exists or new transmission has been approved, while providing opportunities to identify and provide alternative points of interconnection or upgrades.”²⁸ Like SPP, CAISO aims to overhaul a bloated queue that requires initial studies that bear little relation to transmission system reality, and instead chart a course to a new process that produces “meaningful study results that take into account system capability, resource planning and procurement.”²⁹

16. The promise of a forward-looking approach is also becoming clear through the ongoing effort that MISO and SPP are pioneering in the affected systems context. That effort, known as the Joint Targeted Interconnection Queue (JTIQ), examines a larger portfolio of projects to identify solutions that more efficiently solve their collective needs.³⁰ By assessing larger, long-

term system needs across study clusters, this approach identifies efficiencies that could not be captured on a more project-specific basis.³¹

17. As these regions’ proposals are still in flux and have yet to be filed with the Commission, I do not prejudge them. But, at a high level, it appears that these types of approaches may hold the potential to provide developers more certainty; avoid a dynamic whereby large upgrades are assigned to individual projects that then drop from the queue, causing a cascading need for restudy; and deliver benefits to consumers by identifying more efficient infrastructure solutions than would be delivered on a piecemeal basis.

18. Questions worth exploring as these types of processes develop include:

a. How can the process ensure that fees charged to interconnection customers provide the funds needed for the relevant proactively-planned network upgrades, while providing developers with a reasonable degree of cost certainty?

b. Would a mechanism such as a competitive auction or open season administered by the transmission provider be an effective tool for allocating scarce interconnection capacity identified by the forward-looking plans, and/or are there other processes that can effectively streamline the study process?

c. How can such processes be designed in a manner that is not unduly discriminatory and is consistent with open access principles?; and

d. What process is appropriate for interconnection applications that do not align with the transmission provider’s forward-looking regional transmission plan?

B. Align Interconnection Processes With Competitive Resource Solicitations

19. In some regions of the country, it may be appropriate to link aspects of the interconnection process to resource solicitation.³² The Colorado Public Utilities Commission (Colorado Commission), for example, characterizes the interconnection queue management processes of transmission providers in its state as “highly functional.”³³ The key, it says, is that its “existing FERC-approved tariffs and bilateral market structure . . . ensures that projects selected in [its] competitive resource planning and acquisition process obtain

scarce interconnection in a cost-effective and timely manner.”³⁴

20. The Colorado Commission and Arizona Corporation Commission (Arizona Commission) argue that a mechanism to allocate scarce interconnection capacity is needed.³⁵ The Colorado Commission explains that if there is 400 MW of low-cost headroom on the system, for instance, several commercially viable projects that collectively exceed that amount may compete for that headroom yet be unviable on a collective basis if all proceed.³⁶ It contends that, lacking a mechanism to allocate the headroom, a cluster study process may result in an inefficient cycle of study, re-study and delay, without necessarily ensuring that the 400 MW of headroom is used efficiently.³⁷ It argues that facilitating a process where state-jurisdictional competitive solicitation can be used to allocate scarce interconnection capacity is appropriate given “state priorities involving reliability, customer, and environmental preferences.”³⁸

21. FERC proposed a similar “optional resource solicitation” study in this proceeding. Our proposed process differed in a critical respect: the resource solicitation was not granted a queue position,³⁹ and being selected in the resource solicitation would not serve as a mechanism for allocating scarce interconnection capacity. The possibility of more comprehensively aligning the interconnection process with competitive resource solicitations (beyond the jurisdictions where such an approach is currently used) raises many questions, such as:

a. How can competitive solicitations and interconnection processes be designed to effectively coordinate with one another, especially where the soliciting entity (e.g., a state) is different from the transmission provider (e.g., an RTO)?

b. To be effective as a mechanism to allocate scarce interconnection capacity, must a competitive solicitation be paired with a mechanism such as further strengthened commercial readiness requirements to limit the pool of resources in the queue not responding to solicitations, or be designed in a fashion that limits the interactions in the study process between resources responding to the relevant solicitation(s) and those that do not?⁴⁰ Can

³⁴ *Id.*

³⁵ Arizona Commission Initial Comments at 1–2; Colorado Commission Initial Comments at 21–27.

³⁶ Colorado Commission Initial Comments at 21–27.

³⁷ *Id.*

³⁸ *Id.* at 29.

³⁹ Commenters argue that the Commission should have proposed to grant a queue position to the resource solicitation. See, e.g., Colorado Commission Reply Comments at 6; EEI Initial Comments at 5–6; Xcel Initial Comments at 11–14; Clean Energy Associations Initial Comments at 51. Without a queue position for the resource solicitation, the costs identified in the study may not hold true for the various queue positions of underlying resources.

⁴⁰ The Colorado Commission argues that if projects to be studied as part of a competitive solicitation request are “comingled with a much broader pool of speculative projects,” the process

Continued

²⁷ See Southwest Power Pool, *Consolidated Planning Process Task Force*, <https://www.spp.org/stakeholder-groups-list/organizational-groups/board-of-directorsmembers-committee/consolidated-planning-process-task-force/> (last visited July 26, 2023); Southwest Power Pool, *Consolidated Planning Process: Phase 1 Recommendations* (May 17, 2023), <https://www.spp.org/spp-documents-filings/?id=297513> (when accessing “CPPTF Meeting Materials 20230621”). SPP proposes to calculate an “entry fee,” which would involve per-MW costs of any “regional” or “sub-regional” interconnection network infrastructure, along with a “local” component derived from a narrower reliability assessment examining any necessary facilities at the point of interconnection. See Southwest Power Pool, *CPP Entry Fee Rate Structure*, at 20 (July 14, 2023), <https://www.spp.org/spp-documents-filings/?id=297513> (when accessing “CPPTF Meeting Materials 20230714”) (setting forth entry fee components). The key to SPP’s proposal, as I understand it, is that the regional and sub-regional components of the entry fee would be identified by “forward-casting,” a “longer-term assessment” derived from estimated costs of interconnecting resources in a fashion that is integrated with SPP’s long-term regional plan. *Id.* By assessing costs across a broader range of projects than any individual cluster, and by calculating it based on SPP’s proactive planning vision rather than calculating costs for a hypothetical cluster of initial applicants that will not all reach commercial operation, SPP may be able to offer far greater cost certainty for project developers and thereby greatly streamline and accelerate the interconnection process. *Id.* at 11, 19 (illustrating a greatly simplified flow chart for the consolidated planning approach as compared to SPP’s status quo).

²⁸ CAISO, *2023 Interconnection Process Enhancements Track 2 Working Group* at 9 (July 11, 2023), <http://www.caiso.com/InitiativeDocuments/Presentation-Interconnection-Process-Enhancements-2023-Track-2-Working-Group-July112023.pdf>.

²⁹ *Id.*

³⁰ See generally SPP & MISO, *SPP–MISO Joint Targeted Interconnection Queue Cost Allocation and Affected System Study Process Changes White Paper* (Dec. 20, 2022), <https://www.spp.org/documents/68518/spp-miso%20jtiq%20study%20updated%20white%20paper%2020221220.pdf>. Because this approach looks at projects that have reached the affected systems study stage, it does not provide a template for narrowing the initial pool of projects to facilitate meaningful study results. But the

forward-looking nature of the initiative may nevertheless provide valuable insights to regional interconnection processes more broadly.

³¹ See SPP & MISO, *MISO–SPP Joint Targeted Interconnection Queue Update* at 7 (March 27, 2023), <https://cdn.misoenergy.org/20230337%20MISO%20SPP%20JTIQ%20Update628357.pdf>.

³² See, e.g., Clean Energy Associations Initial Comments at 38 (urging the acceptance of “regionally specific proposals that would align the interconnection process with competitive procurements associated with resource planning, rather than placing them at odds”). Such alignment may not be appropriate or feasible, of course, in certain multi-state regions in which the bulk of resource development is driven by anticipated market revenues.

³³ Colorado Commission Initial Comments at 2.

such requirements be designed in a manner that is not unduly discriminatory, and if so, how?

c. Are safeguards necessary to render not unduly discriminatory an interconnection process closely linked to a competitive solicitation process, and if so, what safeguards are necessary or appropriate?⁴¹

d. Is linking the interconnection process to competitive solicitations a viable option in RTO regions, in which state solicitation processes play a large role in supporting new market entrants but other paths to commercial viability may also exist?

C. Facilitate a “Focused” Interconnection Process

22. Other promising ideas for improving cost certainty and reducing delays were put forward to the Commission in this proceeding. In particular, several commenters endorse a more “focused”

could become “unworkable.” Colorado Commission Reply Comments at 5. It argues that, in the RTO context, commercial readiness requirements will be inadequate for this task, and suggests that the Commission allow transmission providers to prioritize native load, using solicitations as a mechanism to allocate scarce interconnection capacity. See Colorado Commission Initial Comments at 21–30. In contrast, the Interwest Energy Alliance argues that while competitive resource solicitations could be a useful tool to organize a portion of the interconnection process, they should not “becom[e] the only pathway through the cluster study process,” because “alternative pathways with reasonable commercial readiness requirements may . . . reveal opportunities for independent transmission companies (potentially associated with independent generation developers) to discover cost-effective ways to add much-needed transmission expansion through additional lines along with additional interconnection capacity.” Interwest Initial Comments at 11–12. Alternatives may be available that allow for other development opportunities alongside resources solicitation clusters. For example, a resource solicitation might be granted its own cluster (so as to allow the soliciting entity to understand the interconnection costs for its combination of resources), while providing for serial processing of clusters composed of resources not participating in the resource solicitation. See Enel Initial Comments at 72 (arguing that if the Commission were to adopt an optional resource solicitation process that designated a queue position, it “should be a separate queue cycle with an intermediate queue priority between the Transmission Provider’s annual study clusters”).

⁴¹ Several entities highlighted the need for guardrails to prevent undue discrimination with regard to the Commission’s proposal of an optional resource solicitation study. See, e.g., R Street Initial Comments at 15–16 (“Guardrails may be helpful to prevent inefficiencies, preference or undue discrimination”); NARUC Initial Comments at 26 (“NARUC strongly supports FERC’s proposal to limit the applicability of the optional resource solicitation study to instances where the resource acquisition is overseen by a state regulatory authority and is competitive and open. Without this requirement, NARUC is concerned about the opportunity for load-serving entities to potentially use the process in a way that would inappropriately favor the interconnection of company-owned resources.”); Pine Gate Initial Comments at 43 (advocating for “appropriate safeguards”). This concern is heightened in the context where the solicitation is granted a queue position, and/or where inclusion in the solicitation serves as a commercial readiness indicator.

interconnection process that streamlines study scope and reduces the need for restudies for projects requesting energy-only service.⁴² As Enel observes, the dilemma of unwieldy studies and cascading restudy needs, and the delay and cost uncertainty that stems from these challenges, is ultimately caused by “the interdependence amongst Interconnection Customers.”⁴³ Cypress Creek notes that “[i]n one extreme example, a group of non-firm, energy-only resource interconnection service (‘ERIS’) requests triggered the need for upgrades up to 1,000 miles away on three different systems.”⁴⁴ Accordingly, another way to facilitate a more workable interconnection process could be to focus study of new projects on their immediate impact to the system. While the number of studies pursuant to such a process could still be large, their scope would be smaller and the potential for cascading restudies would be greatly reduced.

23. Johannes Pfeifenberger of The Brattle Group notes that, using a “connect and manage” approach, the Electric Reliability Council of Texas (ERCOT) has interconnected more generation more quickly than other regions.⁴⁵ Under its system, which “limits restudy needs,” “[p]rojects can be developed and interconnected within 2–3 years,” while “in other regions, the interconnection study process itself may take longer than that.”⁴⁶ Public Interest Organizations state that “[t]he UK’s ‘Connect and Manage’ approach has reduced lead times by 5 years compared to its previous ‘Invest and Connect’ approach.”⁴⁷

24. While ERCOT’s system, which treats all generators as energy-only resources,⁴⁸ may not provide a model for capacity resources, it could provide a template for ERIS

interconnection. Enel argues that a “focused” approach to interconnection is appropriate for resources seeking ERIS because “the Transmission Provider is not obligated to maintain the transmission system such that ERIS generators can maintain the same level of as available injection throughout the life of the generator,” and accordingly, “it would be unreasonable to expect an ERIS generator to mitigate every constraint identified” in a more expansive study that uses a lower transfer distribution factor (TDF) threshold to identify more remote impacts of the project.⁴⁹ Streamlining ERIS interconnection assessment could allow transmission providers to focus their study resources on a smaller number of requests seeking network resource interconnection service (NRIS).⁵⁰

25. Cypress Creek argues that a more focused study approach could be implemented across the many regions that provide an NRIS interconnection option through use of a “two-step ERIS–NRIS” process by which the transmission provider could by default study all resources for ERIS and provide a subsequent process by which an interconnection customer can add firm rights.⁵¹ Such a process might even feasibly provide a faster path to commercial operation while still facilitating deliverable resources in the long run if “NRIS requests [could] be connected more quickly on an ERIS basis while NRIS-related network upgrade study and construction work is still pending.”⁵² While the final rule did not adopt the recommendation for a two-step study process because it was outside the scope of this proceeding,⁵³ individual transmission providers could propose to implement such a process on their own initiative or the Commission could take up this suggestion in a subsequent rulemaking.

26. Key questions that this approach raises include:

a. What is the appropriate mechanism to narrow the scope of ERIS studies to limit the interdependence of projects in the study process? For example, Enel argues that ERIS resources should be studied using a minimum TDF threshold of 20 percent,⁵⁴ and that transmission providers should replace power flow models that assume extreme grid conditions with more realistic economic

⁴⁹ Enel Initial Comments at 23.

⁵⁰ See Public Interest Organizations Initial Comments at 50–52.

⁵¹ Cypress Creek Initial Comments at 8–9.

⁵² Public Interest Organizations Initial Comments at 52. Cypress Creek highlights that SPP currently allows for interim energy-only injection service, providing for a subsequent process by which a generator can add firm rights. Cypress Creek Initial Comments at 8–9. Such a process to add deliverability rights to ERIS resources may hold potential to facilitate immediate contributions to system reliability by these resources, even if such resources are not fully deliverable or compensated in capacity markets or accounted for in applicable resource adequacy analysis.

⁵³ Final rule at P 183.

⁵⁴ Enel Initial Comments at 21–25; see also AEE Reply Comments at 10 (supporting a minimum impact threshold); SEIA Initial Comments at 11 (same); Clean Energy Associations Initial Comments at 27 (same); Pine Gate Initial Comments at 19 (supporting a minimum distribution factor impact threshold of 20 percent).

⁴² See, e.g., R Street Institute et al. June 8, 2023 Comments in Support of Generator Interconnection Reform, at 2 (urging the Commission to “[c]onsider a focused interconnection study approach”); Public Interest Organizations Initial Comments at 50–52 (highlighting the potential for a narrow study process for ERIS resources to produce significantly faster interconnection timelines); ACORE Initial Comments at 2–3 (identifying potential benefits from an interconnection process “focused on local transmission needs only”); R Street Initial Comments at 6–7 (arguing that ERCOT’s “connect and manage” approach is “perhaps the most effective” domestic interconnection process).

⁴³ Enel Initial Comments at 2.

⁴⁴ Cypress Creek Initial Comments at 3–4 (citing Pfeifenberger, *Generation Interconnection and Transmission Planning* (Aug. 9, 2022), <https://www.esig.energy/download/generation-interconnection-and-transmission-planning-johannespfeifenberger/?wpdmdl=9241&refresh=62f38b6ade44a1660128106>).

⁴⁵ See Pfeifenberger, *Planning for Generation Interconnection* 2 (May 31, 2022), <https://www.brattle.com/wp-content/uploads/2022/05/Planning-for-Generation-Interconnection.pdf> (showing that ERCOT has interconnected more than 8 GW of capacity since 2021, significantly more than all other RTOs, even those with considerably greater peak load); see also Cypress Creek Initial Comments at 7.

⁴⁶ Pfeifenberger, *Planning for Generation Interconnection* at 4.

⁴⁷ Public Interest Organizations Initial Comments at 51.

⁴⁸ See Cypress Creek Initial Comments at 7–8.

dispatch models reflecting security constrained economic dispatch.⁵⁵ How do these approaches interact and are they mutually exclusive? Are there other appropriate mechanisms?

b. To the extent that ERIIS studies are narrowed, are changes to market dispatch rules or other measures appropriate to account for the possibility that NRIS resources or resources with long-term firm transmission service may be curtailed before them?⁵⁶

c. If a two-step study process that considers ERIIS analysis first is appropriate, how should it be designed?⁵⁷ Would it be effective to provide for a process that allows ERIIS resources to be converted to NRIS after they are constructed?⁵⁸

d. Could a focused interconnection approach for ERIIS resources be combined with approaches above that may align the interconnection process more closely with long-term transmission planning, and/or use competitive selection processes to allocate scarce interconnection capacity?⁵⁹

II. General Interconnection Process Improvements

27. In addition to these deeper reforms, commenters identified several potential incremental improvements to interconnection processes that were not proposed in the Commission's notice of proposed rulemaking. I discuss some of the most promising ideas below, which in some or most cases may be applicable on a generic basis.⁶⁰

A. Further Refine Study Assumptions

28. Commenters identified a number of ways that study assumptions could be further

clarified, which may help to streamline and improve the accuracy of the interconnection process.

1. Clarify ERIIS and NRIS Assumptions

29. As Enel points out, the Commission has not to date clarified what ERIIS studies should entail, and it has "observed vastly different treatments of" resources seeking ERIIS by different transmission providers.⁶¹ As discussed above, a narrow approach to ERIIS studies may facilitate a more streamlined interconnection process. In addition, some developers contend that grid operators deploy widely varying study assumptions on issues such as whether the models used allow for resource re-dispatch to mitigate any reliability issues that are identified.⁶² They argue that requiring "a uniform set of minimum interconnection study requirements" would "facilitate effective, efficient interconnection queue processing."⁶³

30. While the Commission declined to provide direction on how ERIIS should be studied because such requests were outside the scope of this final rule,⁶⁴ the Commission could take up this topic as part of a subsequent rulemaking. As an initial step, the Commission could solicit information from transmission providers documenting what assumptions and processes are used for ERIIS and NRIS, respectively, to provide a starting point for dialogue around what study assumptions may be appropriate.⁶⁵ Topics that may benefit from further clarification include: (1) the definition and scope of ERIIS; (2) the study assumptions that should be implemented in examining ERIIS requests; and (3) the proper scope of study results and other information that must be provided by transmission providers to interconnection customers so that they can understand the results.

2. Provide for More Accurate Assumptions Regarding Injection of Energy by Resources

31. The final rule clarifies that its requirement to more accurately reflect the proposed charging behavior of electric

storage resources extends only to "the operating assumptions for withdrawals of energy."⁶⁶ In part due to concerns regarding the administrative burden of extending the proposal to injections or other resource types, the final rule declines to extend the reform in these areas.⁶⁷ But while the Commission determined that this record did not support adopting a structure where such assumptions would be studied at the request of individual generators, further examination of how to render operating assumptions more accurate is warranted.

32. Many commenters argued that the Commission should also require more accurate assumptions regarding injections of storage.⁶⁸ And as the final rule acknowledges, many commenters "support eliminating unrealistic interconnection study assumptions for resource types other than electric storage resources, such as assuming that a solar facility will operate at night, or that a wind resource will produce maximum output during low-wind seasons."⁶⁹ Further, several commenters highlighted the benefits of using realistic fuel-based dispatch assumptions in studies, as demonstrated by MISO.⁷⁰ The final rule "acknowledge[s] that fuel-based dispatch assumptions may be able to address some of the identified challenges associated with inaccurate modeling assumptions for all resource types and encourage[s] transmission providers to

⁵⁵ Final rule at PP 1509, 1524.

⁵⁶ Final rule at P 1529.

⁵⁷ See, e.g., Clean Energy Associations Initial Comments at 53 ("[T]he Clean Energy Associations recommend that the Commission specify that transmission providers should also not study electric storage resources as 100% injecting energy during low load periods by default.") (emphasis in original); NextEra Initial Comments at 37 ("Transmission providers should not study electric storage resources as . . . injecting energy during low load and shoulder periods, as [this does] not reasonably reflect typical operations of such units."); Pine Gate Initial Comments at 51 (arguing that the Commission should prohibit transmission providers from using unrealistic operating assumptions, which includes "assuming that electric storage resources will . . . discharge during light load periods").

⁵⁸ Final rule at P 1480 (citing Enel Initial Comments at 74; AES Clean Energy Initial Comments at 24–25; Ameren Initial Comments at 29; CREA and NewSun Initial Comments at 92; Cypress Creek Initial Comments at 9–10; Invenery Initial Comments at 59–61; Microgrid Resources Initial Comments at 7–8; Pine Gate Initial Comments at 54; Public Interest Organizations Initial Comments at 48–49; R Street Initial Comments at 16; rPlus Initial Comments at 6); see also *id.* ("Ameren, Cypress Creek, Microgrid Resources, NARUC, Pine Gate, and rPlus all request that the Commission extend this reform to allow any resource type, not just electric storage or co-located resources, to request that interconnection studies be based on their particular operating assumptions and characteristics.").

⁶⁰ See Invenery Initial Comments at 59–61 (highlighting MISO's practice, as well as "recently approved more realistic fuel-based dispatch" assumptions in SPP); see also Enel Initial Comments at 77–78 (arguing that the Commission should require fuel-based dispatch of generators in modeling "[i]f Power flow analyses are not replaced with SCED studies"); Interwest Reply Comment at 15 (urging the adoption of "realistic fuel-based dispatch assumptions").

⁶¹ Enel Initial Comments at 26–27.

⁶² See, e.g., Cypress Creek Initial Comments at 6 n.11 ("Some RTOs conduct power flow analyses that consider redispatch opportunities (e.g., NYISO via a manual process, PJM via a simplified approach) but many do not check if generation redispatch can address an identified criteria violation."); Pine Gate Initial Comments at 54 ("The primary issues identified relative to current study assumptions are extreme contingency scenarios and overly conservative operational characteristics and strategies (i.e., redispatch protocols).").

⁶³ Pine Gate Initial Comments at 55; see also Cypress Creek Initial Comments at 6 ("re-dispatch should be a standard approach"); Clean Energy Associations Initial Comments at 28 ("[T]he study approach to re-dispatching the system to account for proposed injections . . . is a crucial assumption that is not well understood or defined, but can trigger significant upgrades and increase complexity of interconnection process, even for energy-only (non-firm) interconnection requests. . . . Economic redispatch should be a standard approach to limit regional upgrades identified in the study process, particularly for energy-only interconnection requests.").

⁶⁴ Final rule at P 1291.

⁶⁵ See Enel Initial Comments at 26–27.

⁵⁵ Enel Initial Comments at 73–74.

⁵⁶ Xcel objects to the treatment of ERIIS resources in RTO markets because "[t]hese resources do not bear the costs necessary to ensure that they are deliverable to load as NRIS resources or ERIIS resources that have acquired long term firm transmission service do," and suggests that, as a consequence, it may be appropriate for "ERIS-only service [to] receive a lower dispatch priority." Xcel Initial Comments at 15–16.

⁵⁷ Some regions currently employ a similar two-step process that considers local project needs prior to considering deliverability analysis non-local upgrades based on project interactions. See, e.g., New York State Department Initial Comments at 5–6 (describing NYISO's Class Year study process).

⁵⁸ See Public Interest Organizations Initial Comments at 52 (arguing that "[i]deally, the interconnecting customer would receive an upfront estimate of typical curtailment levels to be expected under ERIIS and would have the option to apply for NRIS at a later date if experienced curtailment levels rise above acceptable levels"). Might such a process be able to efficiently examine a large number of projects, while still requiring significantly fewer restudies than existing interconnection processes by examining only projects that have already secured ERIIS?

⁵⁹ For example, might a transmission provider efficiently assess ERIIS upgrades by studying them using a distribution factor of 20 percent, while simultaneously developing an "entry fee" or open season process aligned with its forward-looking transmission plan to fund upgrades to guarantee deliverability of NRIS resources?

⁶⁰ The discussion herein is not intended to comprehensively capture all potential reforms, but rather to highlight some of the ideas that may be appropriate for further stakeholder discussion.

evaluate the merits of adopting it.”⁷¹ Individual transmission providers remain free to advance such assumptions on an individual basis, and further examination of this concept could create a record adequate for the Commission to determine whether to require fuel-based operating assumptions on a generic basis, and if so, how to precisely structure such a requirement.

B. Use Automation To Facilitate More Efficient Interconnection

33. Currently, the interconnection study and queue process is heavily labor-intensive, and market participants frequently suffer from shortages of qualified study staff, including transmission planners and engineers, in the face of a high volume of interconnection requests.⁷² Accordingly, numerous commenters noted the great potential of automation to conserve staffing resources and speed up this process.⁷³ The broad term “automation” in this context can refer to a wide variety of time-saving steps to bring the queue process fully into the digital age, such as standardized data entry and collection; a web-based application process and data submission with automated validation; automated study model construction and study processes; and pre-population of manufacturer models for relevant equipment.⁷⁴ Commenters requested steps, including the convening of a technical conference, to study how the interconnection process might become more robustly automated to save resources⁷⁵ and facilitate other benefits, such as the more robust integration of grid enhancing technologies (referred to as “alternative transmission technologies” in the final rule) into the bulk power system.⁷⁶ Of course, continuing to

support career path development in this area will remain critical. At the same time, as we have seen in many other industries, automation done right has the potential to save a great deal of unnecessary time, effort, and expense. I support more deeply exploring the range of options available in this domain.

C. Reduce Delay and Cost Overruns in Network Upgrade Construction

34. While there appears to be a lack of good data about the timing and cost of construction of network upgrades once an interconnection agreement is executed,⁷⁷ developers have raised concerns that they have little recourse if such upgrades are delayed or subject to cost increases.⁷⁸ As noted above, the Lawrence Berkeley National Laboratory’s *Queued Up* report does not trace the cause of delays between execution of a project’s interconnection agreement and commercial operation, but shows that the average timespan for this period has increased from roughly 17 months for projects built between 2007–2014 to around 22 months for projects built between 2015–2022, with projects in CAISO showing particularly heightened delays.⁷⁹ Enel contends that “upgrades for Interconnection Customers are only overseen by the Commission for adherence to good utility practice standards,” and “[t]he Commission does not review the timeliness or cost of upgrades unless an Interconnection Customer elects to file an LGIA in unexecuted form and challenge these specific assumptions,” a choice that could result in “costly delays in project timelines that often outweigh any benefit that might be gained from a favorable Commission decision.”⁸⁰

35. Accordingly, it may be appropriate for the Commission to take action to facilitate more timely and cost-conscious construction of such upgrades. One initial step could be for the Commission to gather more data concerning delays that may affect the commercial operation date of a generating facility, and to establish “metrics associated with the delayed construction of facilities.”⁸¹ The Commission could also consider adopting penalties for delays or cost overruns, or an incentive structure for transmission providers that carry out construction on time and on budget.⁸²

36. Finally, it may be appropriate to reconsider the scope of “stand alone network upgrades” to include facilities that may be needed for multiple interconnection customers, and to develop a process that either designates an interconnection customer to build such upgrades, or competitively solicits bids to award construction rights. While this final rule “clarif[ies] that, for a network upgrade to be eligible for treatment as a stand alone network upgrade, the network upgrade must be required for only one interconnection customer,”⁸³ it does so in order to “explicitly maintain[] the status quo.”⁸⁴ The Commission’s Notice of Proposed Rulemaking examined changes to the definition of stand alone network upgrade necessary “to implement a first-ready, first-served cluster study process,”⁸⁵ and did not contemplate any mechanism to “prevent lengthy conflict and negotiations in instances where multiple interconnection requests trigger the need for a network upgrade” beyond restricting such upgrades to those that are required for only one interconnection customer.⁸⁶

37. Ideas were put forth in this proceeding, however, that may hold potential to efficiently allocate construction rights and obligations. In particular, one idea is that “the Commission should consider establishing a new third-party construction option” pursuant to which stand alone network upgrades could “be bid out and built by third parties, such as non-incumbent utilities, independent transmission developers or contractors.”⁸⁷ To develop

cost management. *See, e.g.*, Advanced Energy Economy, Pre-Conference Comments, Docket No. AD22–8, at 2–3 (filed Oct. 4, 2022) (noting that a “major driver[] of transmission cost increases in recent years [has] been . . . incremental network upgrades identified in generator interconnection studies”). In that docket, the Commission has considered, and some commenters have supported, among other measures, new independent entities to monitor transmission planning. *See, e.g.*, Electricity Transmission Competition Coalition, Comments, Docket No. AD22–8, at 6 (filed Oct. 4, 2022); Harvard Electricity Law Initiative, Comment, Docket No. AD22–8, at 18–31 (filed Mar. 23, 2023); R Street Institute, Comments, Docket No. AD22–8, at 6–7 (filed Mar. 23, 2023). To the extent that such entities are established, the Commission could also consider tasking them with monitoring the timely and cost-conscious construction of network upgrades.

⁸³ Final rule at P 192.

⁸⁴ *Id.* at P 193.

⁸⁵ *Improvements to Generator Interconnection Procedures and Agreements*, Notice of Proposed Rulemaking, 179 FERC ¶ 61,194, at P 65 (2022).

⁸⁶ *Id.*; *see* final rule at P 194 (requests to “expand the definition of stand alone network upgrade . . . are outside the scope of this proceeding, which is not proposing to modify the scope of interconnection customers’ option to build certain stand alone network upgrades but rather is only revising definitions insofar as is necessary to implement reforms adopted elsewhere in this final rule”).

⁸⁷ Enel Initial Comments at 52; *see also* Pine Gate Initial Comments at 63–64 (proposing that “the Commission should grant the interconnection customer with the largest projected impact on a potential Stand Alone Network Upgrade facility the ability to elect the option to build with priority falling to each interconnection customer based on

⁷¹ Final rule at P 1529.

⁷² *See, e.g.*, *Cal. Indep. Sys. Operator Corp.*, 176 FERC ¶ 61,207, at PP 7, 21 (2021) (noting CAISO’s statement of its difficulty in finding sufficient expert staff and consultants to timely process a large cluster study); MISO, Informational Report, Docket No. ER19–1960, at 12 (filed Nov. 16, 2020) (noting similar delays); *see also* Akielly Hu, *US Clean Energy Rollout Continues to Be Hamstrung by Grid Challenges*, *Canary Media* (June 13, 2023), <https://www.canarymedia.com/articles/transmission/us-clean-energy-rollout-continues-to-be-hamstrung-by-grid-challenges> (noting that “interconnection studies rely on a workforce of engineers at grid operators, and experts say there are not enough to get the job done,” and quoting the author of Lawrence Berkeley National Laboratory’s *Queued Up* study as saying this staffing issue represents a “fundamental constraint” on queue processing); Avangrid Reply Comments at 12 (“Transmission providers are processing unprecedented numbers of interconnection requests at a time when these qualified transmission planners and engineers are scarce.”); APPA–LPPC Initial Comments at 13 (noting that “available industry system simulation tools” can in some cases ameliorate “labor-intensive study obligations”).

⁷³ *See, e.g.*, California Energy Storage Alliance Initial Comments at 5; NextEra Initial Comments at 14, 40; MISO Initial Comments at 26 n.107; ACORE Initial Comments at 5; ACE–NY Initial Comments at 2–3; Pine Gate Reply Comments at 5.

⁷⁴ NextEra Initial Comments at 14, 40.

⁷⁵ *See* NextEra Initial Comments at 14; Pine Gate Reply Comments at 5.

⁷⁶ *See, e.g.*, WATT Coalition Reply Comments at 2–3.

⁷⁷ *See* *Queued Up* 2023 at 30 (“[L]imited data were available to analyze typical durations from interconnection agreement to commercial operations.”).

⁷⁸ *See, e.g.*, Enel Initial Comments at 50 (“Under the current standard[] of . . . good utility practice, there is a notable lack of incentive, and often a disincentive, for Transmission Owners to perform . . . EPC work in a timely and cost-conscious manner.”); Pine Gate Initial Comments at 64 (expressing concern that limiting the option for interconnection customers to self build will “further exacerbate construction delays and . . . ultimately harm consumers”).

⁷⁹ *See* *Queued Up* 2023 at 30. “The typical solar project built in CAISO since 2018 took over 4 years to reach commercial operations after securing an interconnection agreement; those built in 2022 averaged over 6 years.” *Id.* (emphasis in original).

⁸⁰ Enel Initial Comments at 50–51.

⁸¹ Pine Gate Initial Comments at 64.

⁸² This issue has also arisen in the context of the Commission’s docket on transmission planning and

such an option, the Commission would need to consider “details such as the posting of minimum design standards that must be met, the criteria for choosing a winning bidder, the incentives to hold the winning bidder to cost and schedule estimates, responsibility for cost overruns, rights to own, operate and maintain the Stand-Alone Network Upgrades, and the profit awarded to the winning bidder.”⁸⁸ Further process is warranted to examine this concept.⁸⁹ I encourage transmission providers to work with interconnection customers and other stakeholders to explore structures such as this that may provide greater certainty surrounding the timing and cost of certain network upgrades.

D. Address Challenges Faced by Projects Serving Tribes and Tribal Communities

38. Beyond these recommendations to further facilitate efficient interconnection of new resources, I encourage transmission providers to examine potential changes to address important considerations of equity and fairness related to interconnection of resources serving or developed by Tribes. In particular, I encourage transmission providers to examine whether any exceptions or waivers to the commercial readiness requirements or withdrawal penalties framework are appropriate for certain projects serving Tribal nations or their communities. While the commercial readiness deposit and withdrawal framework adopted in this final rule hold the potential to make interconnection processes more efficient, they may act as a barrier to projects serving or developed by Tribes in cases where such projects adopt unique ownership and financing structures.⁹⁰ This may also be a concern with regard to projects developed by, or in partnership with, communities that have been historically marginalized or overburdened by pollution, and I encourage further dialogue examining whether that is the case.

39. For example, the Commission recently granted a waiver to the SAGE Development Authority (SAGE), an entity developing a wind generation project on Tribal land, to allow it more time to post financial security as required by SPP.⁹¹ SAGE was created by the Standing Rock Sioux Tribe and is developing the project through “a community-led process designed to, among other things, implement Tribal values and ensure that the financial benefits of the Project will in turn support further community projects intended to address disparities around public health and other issues.”⁹² The Commission granted SAGE’s requested waiver in part because “due to its

unique Tribal business structure, it [was] unable to secure credit in advance” of the relevant security deposit deadline.⁹³ Waiver “provide[d] SAGE the time necessary to secure additional credit.”⁹⁴

40. To the extent this rule’s deposit requirements subject Tribal projects to greater risk, the need for similar waivers could be heightened. Accordingly, I encourage further inquiry into whether certain projects developed to serve Tribal communities or disadvantaged communities may have other characteristics that uniquely demonstrate commercial readiness as alternatives to the new deposit requirements. The inquiry could also consider other measures that may allow such projects to overcome any unique barriers that they face.⁹⁵

41. While challenges remain, the Commission’s issuance of a final rule today is an important step forward in the effort to address interconnection backlogs around the country. The ideas for continuing reform that I describe in this concurrence represent best practices and innovative thinking by regions and stakeholders considering how to solve the challenges the final rule does not address. I encourage transmission providers, interconnection customers and other stakeholders to consider the rule’s requirements a strong baseline and not a ceiling, and to continue to engage on the topics I have addressed herein.

For these reasons, I respectfully concur.

Allison Clements,
Commissioner.

Improvements to Generator Interconnection Docket No. RM22–14–000

Procedures and Agreements—

CHRISTIE, Commissioner, *concurring*:

1. I concur to this final rule,¹ which represents major progress towards the primary goal we set out to accomplish last year when we issued the NOPR: To move from a system of “first come, first served” to a system of “first ready, first served” by identifying generation projects in the interconnection queues that are commercially more viable and then moving them ahead of requests that are speculative and which have been causing major backlogs. I write separately about four issues contained within:

I. Evaluation of Alternative Transmission Technologies (Section III.C.2.iii)

2. Alternative transmission technologies, or grid-enhancing technologies (GETs), is a short-hand categorical term that covers a sweeping array of very different technologies. A GET may hold the potential of squeezing

more juice—literally—out of the existing transmission grid. By increasing the capacity of the existing grid, a GET could reduce or even eliminate the need for the future construction of new transmission assets. So the potential for cost-savings from the use of GETs is too important to ignore.

3. One of the most promising GETs—dynamic line ratings (DLRs)—could potentially save billions of dollars in avoided costs for new transmission assets. DLRs are not covered by this final rule, but are the subject of a separate proceeding,² and I hope we will use the record of that proceeding to move forward on a proposed rule to require implementation of DLRs when and where DLRs will be technologically sound and cost-effective.

4. While DLRs have tremendous potential and should be pursued, there is a problem with any categorical regulatory mandate to use GETs, which is this: Some GETs work somewhere but not everywhere; some work sometimes but not all the time; some only work under certain weather conditions; some don’t work at all, or at least not as advertised; and some are only cost-effective where the congestion costs are greater than the cost of the GET itself.

5. Given these engineering and economic realities, some knowledgeable transmission planning experts have argued that GETs categorically are not planning tools, but rather are *operational* applications that should be deployed when and where their efficacy is likely and can be appropriately proven. If they work in the real world as advertised, they could reduce or eliminate the need for *future* network upgrades or even backbone transmission assets, but they should not be mandated as planning tools or as potential substitutes for network upgrades caused by interconnection requests.³

6. Against this cautious view of GETs, I recognize the counterargument that transmission *owners* themselves have an economic incentive to favor the construction of costly new transmission assets rather than deploy GETs to squeeze out more capacity. New transmission assets can be rate-based, and the transmission owner can take advantage of the very generous formula rate treatment offered here at the Commission (another issue I have raised concerns about).⁴

² *Implementation of Dynamic Line Ratings*, 178 FERC ¶ 61,110 (2022).

³ See PJM Initial Comments at 68 (“PJM therefore cautions the Commission *not* to conflate the *operational* benefits of alternative transmission technologies . . . with the need to address significant capacity enhancement needs (short and long-term) or long-range transmission needs under rapid growth or changing resource mix scenarios.”); MISO Initial Comments at 121–22 (“Further, although these technologies may be evaluated, the technologies identified by the Commission still may *not* provide the appropriate solution from a *planning* perspective. Many of the technologies identified are appropriately considered as *operational tools* or *short-term solutions* but are *not* necessarily appropriate for *planning* to support a particular generator interconnection.”) (emphases added, footnote omitted).

⁴ See, e.g., *Sw. Power Pool, Inc.*, 183 FERC ¶ 61,151 (2023) (Clements, Comm’r, and Christie, Comm’r, concurring at P 4) (“Indeed, the

their interconnection request having the next largest impact on the Stand Alone Network Upgrade”).

⁸⁸ Enel Initial Comments at 52.

⁸⁹ Enel notes that “[t]he Commission could establish workshops or other mechanisms to further explore and develop these details.” *Id.*

⁹⁰ See OSPA Initial Comments at 8, 15–16 (arguing that SPP’s current security deposit regime has been “an insuperable barrier to renewable energy development on Tribal lands”).

⁹¹ See *SAGE Development Authority*, 182 FERC ¶ 61,180 (2023).

⁹² *Id.* at P 4.

⁹³ *Id.* at P 20.

⁹⁴ *Id.*

⁹⁵ See also Energy Keepers Initial Comments at 2–3 (arguing that it would not be “unduly discriminatory or preferential for transmission providers to expedite the processing of Native American interconnection requests,” considering “prior environmental justice inequities.”).

¹ *Improvements to Generator Interconnection Procedures and Agreements*, 184 FERC ¶ 61,054 (2023) (Final Rule).

So to overcome this incentive against GETs deployment, proponents argue that the Commission should require it.

7. But—as usual—the economic incentives argument has more than one side. The companies that sell GETs (and the organizations they fund) stand to profit from any regulation mandating that their products must be used. And generation developers (and the organizations they fund) have every incentive to lobby for a regulation mandating the use of GETs as a way to avoid paying the costs of the traditional network upgrades made necessary by their interconnections. This incentive is particularly salient in RTOs/ISOs that use participant funding to pay for the costs of network upgrades caused by the interconnecting customers (*i.e.*, developers).

8. So—again, as usual with sweeping Commission regulations—there is plenty of rent-seeking to go around. Striking the appropriate balance—one that is in the *public* interest—is a challenge. I believe this final rule—unlike the NOPR—does strike the right balance, in terms of a requirement simply to evaluate GETs in determining the appropriate network upgrade.

9. Importantly, the final rule makes it explicitly clear that while it is requiring the *evaluation* of certain listed GETs in the interconnection studies process, it is *not* requiring—nor even suggesting—that a GET must be deployed as an alternative to a necessary network upgrade. Indeed, the final rule explicitly says:

This final rule does not create a presumption in favor of substituting alternative transmission technologies for necessary traditional network upgrades, either categorically or in specific cases. This final rule is agnostic as to whether, in a specific case, an alternative transmission technology is an acceptable alternative to a traditional network upgrade

10. The final rule also makes it explicitly clear that the determination in each case is to be made at the *sole* discretion of the transmission provider (*i.e.*, RTO/ISOs or non-RTO transmission providers), applying good utility practices, applicable reliability standards, and other applicable regulatory requirements. To avoid continual litigation aimed at the transmission provider's determination in specific cases when a generation developer does not want to pay the costs of a network upgrade, the final rule explicitly makes clear that it is requiring a

Commission grants formula rate treatment, including a presumption of prudence, to filings from transmission owners seeking cost recovery for transmission projects without regard to whether such projects have been subject to a serious vetting in any proceeding in which both need and prudence of cost must be demonstrated by the transmission developer. We have expressed concerns about this lack of oversight previously, and this filing by SPP illustrates exactly why that is a major problem pertinent to the issue of rising consumer costs for transmission.”), <https://www.ferc.gov/news-events/news/commissioner-clements-and-commissioner-christies-joint-concurrence-spp-project>; Transmission Planning and Cost Management, Technical Conference, Docket No. AD22–8–000, Tr. 16:4–20:11 (Comm'r Mark Christie) (Oct. 6, 2022).

process of evaluation, *not mandating outcomes* in specific cases. And it makes clear that if the transmission provider performs the *evaluation* as required in the final rule, it has complied with the final rule.

11. This agnosticism as to outcomes in specific cases is critically important. Transmission providers must require the appropriate network upgrade necessary to fix the reliability issue caused by the interconnection request. If a GET is used instead, and it fails to fix the reliability issue caused by the interconnection, a later network upgrade will be required, one potentially more costly than the network upgrade originally required. And who will pay those costs? Certainly in RTOs/ISOs using participant funding, *load (retail consumers) should not*. Sticking those costs on consumers would raise a serious question of unjust and unreasonable rates.

12. In summary though, I believe that this final rule strikes the appropriate balance between requiring the evaluation of GETs, but not mandating the use of a GET in specific cases unless the transmission provider—and only the transmission provider—determines it would work from a real-world applicability standpoint. In all cases, the transmission provider should apply its engineering expertise to come to the right determination as to the necessary network upgrades. This final rule requires nothing less.

II. Repayment of Affected Systems Network Upgrade Costs (Section III.B.2.c.iii(c))

13. The final rule essentially codifies existing precedent as to the repayment of affected systems network upgrade costs when a generation developer interconnects at or near a seam between an RTO (which uses participant funding to pay for interconnection costs) and a non-RTO, vertically integrated load-serving utility that uses a crediting mechanism.

14. Three recent cases involving Duke Energy Progress, LLC (Duke) in North Carolina⁵ illustrate my concern about the Commission's repayment policy.⁶ In these

⁵ *Duke Energy Progress, LLC*, 181 FERC ¶ 61,229 (2022), *reh'g deemed denied*, 182 FERC ¶ 62,088 (2023); *Duke Energy Progress, LLC*, 180 FERC ¶ 61,005, *order on reh'g*, 181 FERC ¶ 61,197 (2022) (Edgecombe Rehearing Order); *Duke Energy Progress, LLC*, 177 FERC ¶ 61,001 (2021), *order on reh'g*, 179 FERC ¶ 61,007 (2022) (American Beech Rehearing Order). My concurrences to the Edgecombe Rehearing Order and American Beech Rehearing Order set forth my concerns as well. *See* Edgecombe Rehearing Order, 181 FERC ¶ 61,197 (Christie, Comm'r, concurring) (Edgecombe Concurrence), <https://www.ferc.gov/news-events/news/commissioner-christies-concurrence-concerning-rehearing-duke-energy-progress>; American Beech Rehearing Order, 179 FERC ¶ 61,007 (Christie, Comm'r, concurring).

⁶ *See Standardization of Generator Interconnection Agreements & Procs.*, Order No. 2003, 68 FR 49846 (Aug. 19, 2003), 104 FERC ¶ 61,103, at PP 693–696, 720–739 (2003), *order on reh'g*, Order No. 2003–A, 69 FR 15932, 106 FERC ¶ 61,220, at PP 584–586, *order on reh'g*, Order No. 2003–B, 70 FR 265 (Jan. 19, 2005), 109 FERC ¶ 61,287 (2004), *order on reh'g*, Order No. 2003–C, 70 FR 37661 (July 18, 2005), 111 FERC ¶ 61,401 (2005), *aff'd sub nom. Nat'l Ass'n of Regul. Util. Comm'rs v. FERC*, 475 F.3d 1277 (D.C. Cir. 2007).

cases, generation developers located within the PJM footprint, which extends into a corner of northeastern North Carolina due to Dominion Energy, Inc.'s PJM membership, chose to interconnect very close to the seam with Duke's North Carolina territory. Duke is a vertically integrated utility regulated by the North Carolina Utilities Commission (NCUC) on an Integrated Resource Plan (IRP) model. Duke builds transmission (and generation) subject to an IRP approved by the NCUC, and the costs of network upgrades caused by that new generation are paid by retail consumers. Since the NCUC approves new generation through its IRP process, which includes the costs to interconnect that new generation, the NCUC decides the generation and interconnection costs that are appropriately paid for by retail consumers.

15. In these three cases, however, Duke was considered an “affected system” for the interconnection costs caused by the generation developers located just across the seam in PJM's footprint. So the affected systems network upgrades were not paid by the developer (creating an incentive to locate close to the seam), but by Duke's retail consumers through crediting pursuant to Commission policy. And unlike the costs of transmission and network upgrades built with the prior approval of the NCUC, no state-approved IRP controls the construction of generation in the PJM footprint in North Carolina. Not surprisingly, the NCUC and the NCUC Public Staff, which represents consumers in North Carolina, filed vigorous—and in my opinion, persuasive—comments in several proceedings on these issues.⁷

I note that this policy applies not just to affected systems network upgrades but also network upgrades on the host transmission provider's system.

⁷ *See* NCUC and NCUC Public Staff Initial Comments at 6; NCUC and NCUC Public Staff, Joint Comments, Docket No. RM21–17–000, at 12 (filed Aug. 17, 2022); NCUC Public Staff, Comments, Docket No. RM21–17–000, at 13–15 (filed Oct. 12, 2021); NCUC Public Staff Reply Comments, Docket No. RM21–17–000, at 6 (filed Nov. 30, 2021) (“[U]nder the crediting policy, ratepayers are left paying the bill regardless of the benefits, or lack thereof, they received from the network upgrades. Further, the [NCUC] Public Staff believes that [interconnection customers] are beginning to ‘game’ the system by placing large merchant plants into the interconnection queue in congested areas to take advantage of the crediting policy and fill what excess capacity is then created with state jurisdictional projects that would normally have to fund the upgrades themselves.”); *see also* NCUC Public Staff, Motion to Intervene Out-of-Time and Comment, Docket No. ER21–1955–003, at 1–9 (filed Nov. 9, 2021) (generally arguing, *inter alia*, that Duke customers will not or will only minimally benefit from upgrading its system to accommodate power being interconnected and delivering to PJM; that Duke ratepayers are subsidizing costs that should be paid for by the developer, the party that is both causing the costs to be incurred and reaping the resulting benefits; that given the proliferation of merchant generation trying to locate in this area of North Carolina, the NCUC Public Staff is concerned that Duke ratepayers will be burdened with potentially hundreds of millions of dollars in affected systems network upgrade cost as a result of the Commission's actions; and that the project in American Beech had not yet received a CPCN from North Carolina so any decision put the “cart before the horse.”).

16. While I recognize that the results in these cases were consistent with prior precedent and Order No. 2003,⁸ I think that precedent and, if necessary, Order No. 2003 itself, should be revisited as to the affected systems repayment policy. I concur to the issuance of this final rule because this final rule is not the appropriate place to revisit the issue and because the final rule by its own terms does not go beyond existing precedent.

III. Inappropriate Allocation of Certain Costs to Consumers

17. As described below, while I support the final rule, I am concerned that study delay penalties on RTOs/ISOs and the costs of transmission provider heatmaps used as a tool for interconnection customers will be inappropriately allocated to consumers even though they both appear to provide much more of a benefit to generation developers than consumers. I address each in turn.

A. Study Delay Penalties on RTOs/ISOs (Section III.B.1.c.x)

18. The final rule adopts the NOPR proposal to eliminate the reasonable efforts standard from the *pro forma* LGIP, and it adds a new section to the *pro forma* LGIP that imposes penalties on transmission providers who miss study deadlines. I have no qualms about assessing penalties on non-RTO/ISO transmission providers and transmission-owning members of RTOs/ISOs. These are generally investor-owned companies and stockholders will bear such costs. On the other hand, I have concerns about assessing study penalties on RTOs/ISOs, as they are not-for-profit entities who do not have stockholders. In my concurrence to the NOPR, I explained:

[T]he penalty provisions do not answer definitively the most important question of all: Who will pay these penalties in an RTO or ISO which has no stockholders? Consumers certainly should not pay, directly or indirectly.⁹

The final rule does not fully address this question and does not provide complete assurance that consumers will be protected.

19. However, the final rule does have some protections in place to protect against consumers ultimately having to pay for study delay penalties. First, the final rule modifies the NOPR proposal to prohibit non-RTO/ISO transmission providers and transmission-owning members of RTOs/ISOs from recovering study delay penalty amounts through transmission rates.¹⁰ Second, the final rule modifies the NOPR proposal to

adopt a new provision in our regulations specifying that, for RTOs/ISOs in which the transmission-owning members perform certain interconnection studies, the study delay penalties will automatically be imposed directly on the transmission-owning member(s) that conducted the late study.

20. But these provisions still leave open the question of how RTOs/ISOs will recover those study delay penalties that are not automatically imposed on a transmission-owning member. The final rule essentially punts on this question, explaining that RTOs/ISOs may submit an FPA section 205 filing to propose a default structure for recovering study delay penalties and/or make individual FPA section 205 filings to recover the costs of any specific study delay penalties. I urge that any such RTO/ISO filing make protections to consumers paramount.

B. Cost of Heatmap (Section III.A.1.c.iii)

21. This final rule requires transmission providers to publicly post a “heatmap” with certain information after the completion of each cluster study and cluster restudy period. The final rule finds that the heatmap will benefit *interconnection customers*, including prospective interconnection customers, by providing them further transparency as to expected congestion and potential network upgrades and therefore will reduce the number of speculative interconnection requests. I agree that a requirement to post a heatmap will greatly benefit interconnection customers and support the requirement’s addition to the *pro forma* LGIP.

22. Where I am concerned, however, is how the heatmap should be funded. The final rule clarifies that transmission providers, *not* interconnection customers, are responsible for paying the costs associated with the heatmap requirement. Further, the final rule contemplates transmission providers recovering the costs of the heatmap from transmission customers and *ex ante* determines that such rate treatment is appropriate because interconnection queue efficiency benefits transmission customers. Commission policy may dictate that interconnection queue efficiency benefits transmission customers;¹¹ however, that should not result in the costs of a requirement that best benefits interconnection customers, and really *prospective* interconnection customers that may ultimately not seek to interconnect, being recovered from *consumers* through transmission rates *carte blanche*. The Commission simply cannot ask retail consumers to foot the bill for every single “efficiency,” especially where many of these “efficiencies” largely benefit generation developers and then get folded into transmission rates and receive an ROE.¹²

23. I believe this issue merits further scrutiny, and I look forward to future comments on this issue.

IV. “Hold Harmless” Provisions (Sections I, III.A.6.c.iii, IV.C)

24. In my concurrence to the NOPR, I wrote that while I supported the proposed queue reforms (subject, of course, to comment):

I also caution strongly that we should avoid undermining through this NOPR what the RTOs/ISOs, working through their stakeholder processes, are already doing to fix their own queue problems. We should recognize that each RTO/ISO is different and faces unique local challenges and needs. The queue reforms proposed in today’s NOPR should be seen more as guideposts or general standards rather than unyielding mandates that refuse to take local solutions into consideration. *I would allow RTOs/ISOs the opportunity to demonstrate that if their own efforts to enact queue reforms achieve the same goals in a different, but equally effective manner, their individual reform may be acceptable in complying with any final rule.* While this NOPR currently recognizes the potential for regional flexibility, I hope the need for such flexibility is explicitly memorialized in any final rule.¹³

25. This final rule contains language that is intended to recognize the earnest and good-faith efforts undertaken by the RTOs to enact queue reforms. Some RTOs, such as PJM, have already launched extensive queue reforms; others, such as CAISO, are hard at work on developing queue reforms.

26. I concur because this final rule does contain language that is at least intended to recognize the efforts of RTOs to act on their own queue reforms without waiting on a Commission rulemaking. Whether the language of this final rule adequately recognizes or “holds harmless” those efforts will be an issue for compliance filings.

For these reasons, I concur.

Mark C. Christie,
Commissioner.

[FR Doc. 2023–16628 Filed 9–5–23; 8:45 am]

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AD21–15–000, Tr. 37:9–20 (Comm’r Mark Christie) (Nov. 15, 2022) (“Let’s put this in context, and talk about what’s really at stake here. Last year national transmission rate base went up over 9 percent. That’s the third consecutive year it’s gone up over 9 percent. What goes into rate base, goes into consumer’s bills. Every nickel. And in the last decade, national transmission rate base has almost tripled, and . . . at 9 percent it’s going to double again in the next eight years. This is all going into customer’s bills. So this is a hugely important issue. This is a ton of money, this is big, big money.”).

¹³ NOPR Concurrence at P 4 (emphasis added, footnote omitted).

⁸ See, e.g., Edgecombe Concurrence.

⁹ *Improvements to Generator Interconnection Procs. & Agreements*, 87 FR 39934 (July 5, 2022), 179 FERC ¶ 61,194 (2022) (Christie, Comm’r, concurring at P 3) (NOPR Concurrence), <https://www.ferc.gov/news-events/news/e-1-commissioner-christies-concurrence-improvements-generator-interconnection>.

¹⁰ Final rule, Section III.B.1.c.ix.

¹¹ Whether or not I agree with Commission policy is another matter entirely. See, e.g., *supra* PP 13–16.

¹² Joint Fed.-State Task Force on Elec. Transmission, Technical Conference, Docket No.



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Part III

Department of Health and Human Services

Centers for Medicare & Medicaid Services

42 CFR Parts 438, 442, et al.

Medicare and Medicaid Programs; Minimum Staffing Standards for Long-Term Care Facilities and Medicaid Institutional Payment Transparency Reporting; Proposed Rule

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Centers for Medicare & Medicaid Services

42 CFR Parts 438, 442, and 483

[CMS-3442-P]

RIN 0938-AV25

Medicare and Medicaid Programs; Minimum Staffing Standards for Long-Term Care Facilities and Medicaid Institutional Payment Transparency Reporting

AGENCY: Centers for Medicare & Medicaid Services (CMS), Department of Health and Human Services (HHS).

ACTION: Proposed rule.

SUMMARY: This proposed rule would establish minimum staffing standards for long-term care facilities, as part of the Biden-Harris Administration's Nursing Home Reform initiative to ensure safe and quality care in long-term care facilities. In addition, this rule proposes to require States to report the percent of Medicaid payments for certain Medicaid-covered institutional services that are spent on compensation for direct care workers and support staff.

DATES: To be assured consideration, comments must be received at one of the addresses provided below, by November 6, 2023.

ADDRESSES: In commenting, please refer to file code CMS-3442-P.

Comments, including mass comment submissions, must be submitted in one of the following three ways (please choose only one of the ways listed):

1. *Electronically.* You may submit electronic comments on this regulation to <http://www.regulations.gov>. Follow the "Submit a comment" instructions.

2. *By regular mail.* You may mail written comments to the following address ONLY: Centers for Medicare & Medicaid Services, Department of Health and Human Services, Attention: CMS-3442-P, P.O. Box 8016, Baltimore, MD 21244-8016.

Please allow sufficient time for mailed comments to be received before the close of the comment period.

3. *By express or overnight mail.* You may send written comments to the following address ONLY: Centers for Medicare & Medicaid Services, Department of Health and Human Services, Attention: CMS-3442-P, Mail Stop C4-26-05, 7500 Security Boulevard, Baltimore, MD 21244-1850.

For information on viewing public comments, see the beginning of the **SUPPLEMENTARY INFORMATION** section.

FOR FURTHER INFORMATION CONTACT: The Clinical Standard Group's Long Term Care Team at HealthandSafetyInquiries@cms.hhs.gov for information related to the minimum staffing standards.

Anne Blackfield, (410) 786-8518, for information related to Medicaid institutional payment transparency reporting.

SUPPLEMENTARY INFORMATION:

Inspection of Public Comments: All comments received before the close of the comment period are available for viewing by the public, including any personally identifiable or confidential business information that is included in a comment. We post all comments received before the close of the comment period on the following website as soon as possible after they have been received: <http://www.regulations.gov>. Follow the search instructions on that website to view public comments. CMS will not post on [Regulations.gov](http://www.Regulations.gov) public comments that make threats to individuals or institutions or suggest that the individual will take actions to harm the individual. CMS continues to encourage individuals not to submit duplicative comments. We will post acceptable comments from multiple unique commenters even if the content is identical or nearly identical to other comments.

To assist readers in referencing sections contained in this document, we are providing the following Table of Contents.

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I. Executive Summary

A. Purpose

This proposed rule would establish minimum staffing standards to address ongoing safety and quality concerns for the 1.4 million¹ residents receiving care in Medicare and Medicaid certified Long-Term Care (LTC) facilities. On February 28, 2022, President Biden

announced that CMS would propose minimum staffing standards that nursing homes must meet, based in part on evidence from a new research study that will focus on the level and type of staffing needed to ensure safe and quality care.² In addition, on April 18, 2023, President Biden issued "Executive Order on Increasing Access to High-Quality Care and Supporting Caregivers",³ which directs the Secretary of HHS to consider actions to encourage LTC facilities to reduce nursing staff turnover that is associated with improving safety and quality of care.^{4,5}

These safety and quality concerns stem, at least in part, from chronic understaffing in LTC facilities, and are particularly associated with insufficient numbers of registered nurses (RNs) and nurse aides (NAs), as evidenced from, *inter alia*, a review of data collected since 2016 and lessons learned during the COVID-19 Public Health Emergency (PHE). Numerous studies, including our new research study as well as existing literature, have shown that staffing levels are closely correlated with the quality of care that LTC facility residents receive, and with improved health outcomes. The minimum staffing standards would also provide staff in LTC facilities the support they need to safely care for residents, help prevent staff—burnout, thereby reducing staff turnover, which can lead to improved safety and quality for residents and staff. This proposed rule would also promote public transparency related to the percent of Medicaid payments for certain institutional services that are spent on compensation to direct care workers and support staff.

B. Summary of Major Provisions

We are proposing to update the Federal participation "Requirements for Medicare and Medicaid Long Term Care Facilities" minimum staffing standards ("LTC requirements"). The updates to

² <https://www.whitehouse.gov/briefing-room/statements-releases/2022/02/28/fact-sheet-protecting-seniors-and-people-with-disabilities-by-improving-safety-and-quality-of-care-in-the-nations-nursing-homes/>.

³ Executive Order on Increasing Access to High Quality Care and Supporting Caregivers. White House. Accessed at <https://www.whitehouse.gov/briefing-room/presidential-actions/2023/04/18/executive-order-on-increasing-access-to-high-quality-care-and-supporting-caregivers/>. Published on April 18, 2023. Accessed on April 19, 2023.

⁴ Zheng, Q, Williams, CS, Shulman, ET, White, AJ. Association between staff turnover and nursing home quality—evidence from payroll-based journal data. *J Am Geriatr Soc.* 2022; 70(9): 2508–2516. doi:10.1111/jgs.17843.

⁵ Castle, Nicholas G, and John Engberg. "Staff turnover and quality of care in nursing homes." *Medical care* vol. 43,6 (2005): 616–26. doi:10.1097/01.mlr.0000163661.67170.b9.

¹ <https://data.cms.gov/summary-statistics-on-use-and-payments/medicare-service-type-reports/cms-program-statistics-medicare-skilled-nursing-facility>.

the LTC requirements proposed in this rule would be used to survey facilities for compliance and enforced as part of CMS's existing survey, certification, and enforcement process for LTC facilities. In addition, consistent with the President's strategic plan, we also intend to display our determinations of facility compliance with the minimum staffing standards on Care Compare. We welcome comments on the most appropriate approach for doing so.

We are proposing to establish Federal minimum nurse staffing standards for a number of reasons, including the growing body of evidence demonstrating the importance of staffing to resident health and safety, continued insufficient staffing, non-compliance by a subset of facilities, the need to reduce variability in the minimum floor for nurse-to-resident ratios across States by creating a consistent floor, and, most importantly, to reduce the risk of residents receiving unsafe and low-quality care.

The proposed regulatory updates are based on evidence we collected using a multifaceted approach, which included conducting a new nursing home staffing study, gathering feedback during listening sessions, considering more than 3,000 comments received from the Fiscal Year 2023 Skilled Nursing Facility Prospective Payment System proposed rule (FY2023 SNF PPS) request for information (RFI), assessing Payroll-Based Journal (PBJ) System data on nursing home staffing, and reviewing the existing literature.

Specifically, we propose to revise § 483.35(b) to require an RN to be on site 24 hours per day and 7 days per week to provide skilled nursing care to all residents in accordance with resident care plans. We also propose individual minimum staffing type standards, based on case-mix adjusted data for RNs and NAs, to supplement the existing "Nursing Services" requirements at 42 CFR 483.35(a)(1)(i) and (ii) to specify that facilities must provide, at a minimum, 0.55 RN hours per resident day (HPRD) and 2.45 NA HPRD. We note that while the 0.55 and 2.45 HPRD standards were developed using case-mix adjusted data sources, the standards themselves will be implemented and enforced independent of a facility's case-mix. In other words, facilities must meet the 0.55 RN and 2.45 NA HPRD standards, at a minimum, regardless of the individual facility's patient case-mix. RN and NA staffing can never be lower than these proposed minimum standards, and if the acuity needs of residents in a facility require a higher level of care, a higher RN and NA staffing level will also be required. CMS

is also seeking comments on whether in addition to the 0.55 RN and 2.45 NA HPRD standards, a minimum total nurse staffing standard, discussed later in the rule, should also be required. For compliance, hours per resident day (HPRD) is defined as staffing hours per resident per day which is the total number of hours worked by each type of staff divided by the total number of residents as calculated by the CMS. As further described below, the proposed minimum staffing standard is supported by literature evidence, analysis of staffing data and health outcomes, discussions with residents, staff, and industry⁶ and other factors.

We note that each of the minimum staffing requirements independently supports resident health and safety. Therefore, compliance with the 24/7 RN requirement does not imply compliance with the minimum 0.55 RN HPRD and 2.45 NA HPRD requirements or vice versa. Specifically, as discussed elsewhere in this rule, the presence of an RN in a LTC facility on a 24-hour basis improves overall quality of care. Similarly, but separately, a minimum number of RN and NA hours per resident per day improve overall quality of care. Both independently and collaboratively, these requirements would support compliance with statutory mandates to provide services to attain or maintain the highest practicable physical, mental, and psychosocial well-being of each resident, in accordance with a written plan of care.

As noted elsewhere, this proposal is informed by multiple sources of information, including the 2022 Nursing Home Staffing Study, more than 3,000 public comment submissions, academic and other literature, PBJ System data, and detailed listening sessions with residents and their families, workers, health care providers, and advocacy groups. We recognize that some of the materials we have relied upon offer support for a higher minimum HPRD standard. For several reasons discussed later in this proposed rule, including the importance of setting achievable staffing targets as the long-term care sector recovers from the effects of the COVID-19 pandemic and the desire to preserve resident access to care as the sector expands hiring to meet staffing standards, we are proposing a set of policies that balance the urgent need to improve resident safety and quality of care alongside these practical

considerations. The policies include minimum HPRD standards for direct care by nursing staff, required access to an RN 24 hours per day 7 days per week, and enhanced facility staffing assessments.

For example, the 2022 Nursing Home Staffing Study found that a total nurse staffing level of 3.67 or 3.88 HPRD was linked with additional facilities improving quality and safety relative to current low performers, and that total nurse staffing levels between 3.8 HPRD and 4.6 HPRD (including 1.4 licensed nurse HPRD) were linked with reductions in the amount of delayed or omitted clinical care. Our proposal squares these associations between higher HPRD nurse staffing levels and better care outcomes with the goal of establishing implementable minimum standards that can substantially improve quality and safety at all LTC facilities in the near-term. We also considered variation and contradiction between different information sources, including the 2022 Nursing Home Staffing Study, namely regarding the benefits of a staffing standard inclusive of or specific to LPN/LVNs. We further considered the benefits of a requirement for 24/7 on-site RN staffing and strengthened facility staffing assessments, which under this proposed rule apply independently of the HPRD requirements.

The resulting, evidence-based proposal appropriately prioritizes quality and safety of care gains from establishing minimum standards for RNs and NAs, with a particular emphasis on the direct care delivered at the bedside by NAs, and effective implementation of these new requirements. As noted elsewhere, if finalized, these new required floors would increase staffing in more than 75 percent of nursing facilities nationwide, and the proposed NA and RN HPRD requirements exceed those of nearly all States. We remain committed to continued examination of staffing thresholds, including careful work to review quality and safety data resulting from initial implementation of finalized policies, and robust public engagement. Should subsequent data indicate that additional increases to staffing minimums would be warranted and feasible, we anticipate that we will revisit the minimum staffing standards to shift them toward the higher ranges supported by the evidence, such as those described above, with continued consideration of all relevant factors.

We also propose to revise the existing Facility Assessment requirements at § 483.70(e) by moving the provisions to a standalone section and modifying the

⁶ Abt Associates. (2022). Nursing Home Staffing Study Comprehensive report. Report prepared for the Centers for Medicare & Medicaid Services. <https://edit.cms.gov/files/document/nursing-home-staffing-study-final-report-appendix-june-2023.pdf>.

requirements to ensure that facilities have an efficient process for consistently assessing and documenting the necessary resources and staff that the facility requires to provide ongoing care for its population that is based on the specific needs of its residents.

We are proposing to stagger the implementation dates of these requirements sufficiently to allow facilities the time needed to prepare and be in compliance with the new requirements. Specifically, we propose that the RN on site, 24 hours per day, for 7 days a week would take effect 2 years after publication of the final rule; and we propose that the individual minimum standards of 0.55 HPRD for RNs and 2.45 HPRD for NAs would take effect 3 years after publication of the final rule. Under the proposal facilities in rural areas would be required to meet the proposed RN on site 24 hours per day, for 7 days a week, 3 years after publication of the final rule; and the proposed minimum standards of 0.55 HPRD for RNs and 2.45 HPRD for NAs would take effect 5 years after publication of the final rule.

Exemption from the proposed minimum standards of 0.55 HPRD for

RNs and 2.45 HPRD for NAs would be available only in limited circumstances, where all four of the following criteria are met. The four exemption criteria are: (1) where workforce is unavailable, or the facility is at least 20 miles from another long-term care facility, as determined by CMS; (2) the facility is making a good faith effort to hire and retain staff; (3) the facility provides documentation of its financial commitment to staffing; and (4) the facility has not failed to submit PBJ data in accordance with re-designated 483.70(p), is not a Special Focus Facility (SFF); has not been cited for widespread insufficient staffing with resultant resident actual harm or a pattern of insufficient staffing with resultant resident actual harm, as determined by CMS; and has not been cited at the “immediate jeopardy” level of severity with respect to insufficient staffing within the 12 months preceding the survey during which the facility’s non-compliance is identified.

If finalized, enforcement actions, also called remedies, would be taken against LTC facilities that are not in compliance with these Federal participation requirements. The remedies CMS may

impose include, but are not be limited to, the termination of the provider agreement, denial of payment for all Medicare and/or Medicaid individuals by CMS, and/or civil money penalties.

We are also proposing new regulations at 42 CFR 442.43 (with a cross-reference at 42 CFR 438.82) that would require that State Medicaid agencies report on the percent of payments for Medicaid-covered services in nursing facilities and intermediate care facilities for individuals with intellectual disabilities (ICF/IIDs) that are spent on compensation for direct care workers and support staff. This proposal is designed to inform efforts to address the link between sufficient payments being received by the institutional direct care and support staff workforce and access to and, ultimately, the quality of services received by Medicaid beneficiaries. Taken together, we believe that these proposals will improve safety and quality of care for residents in Medicare and Medicaid certified LTC facilities and Medicaid certified ICF/IIDs.

C. Summary of Cost and Benefits

TABLE 1—COST AND BENEFITS

Provision description	Total transfers/costs
Comprehensive Staffing Requirement for LTC Facilities	Without accounting for any exemptions, we estimate that the overall economic impact for the proposed minimum staffing requirements for LTC facilities (that is, collection of information costs and compliance with the 24/7 RN, facility assessment, and minimum 0.55 RN and 2.45 NA HPRD requirements), which includes staggered implementation of the requirements, would result in an estimated cost of approximately for \$32 million in year 1; \$246 million in year 2; \$4 billion in year 3; with costs increasing to \$5.7 billion by year 10. We estimate the total cost over 10 years will be \$40.6 billion, which was derived from <i>FY 2021 Part V</i> of the Medicare Cost Report. LTC facilities would be expected to bear the burden of these costs, unless payors increase rates to cover cost. Quantified benefits include but are not limited to, increased community discharges, reduced hospitalizations, and emergency department visits, with a minimum estimated savings of gross costs of \$318 million per year for Medicare starting in year 3. Various categories of other important but hard to quantify benefits include reduced staff burnout and turnover, and increased safety and quality of care for LTC residents. Lack of quantification is also noteworthy as regards key categories of costs.
Medicaid Institutional Payment Transparency Reporting	The overall economic impact for the proposed reporting requirement is a one time cost of \$38 million and ongoing annual costs of \$18 million per year.

II. Minimum Staffing Standards for Long-Term Care Facilities

A. Background

1. Statutory Authority and Regulatory Requirements for Direct Care Nurse Staffing in Long-Term-Care (LTC) Facilities

Sections 1819 and 1919 of the Social Security Act (the Act) set out regulatory

requirements for Medicare and Medicaid long-term care facilities, respectively. Specific statutory language at sections 1819(d)(4)(B) and 1919(d)(4)(B) of the Act permit the Secretary of the Department of Health and Human Services (the Secretary) to establish any additional requirements relating to the health, safety, and well-

being⁷ of residents in skilled nursing facilities (SNF) and nursing facilities (NF), as the Secretary finds necessary. This provision and other statutory authorities set out in section 1819 and

⁷ Section 1819(d)(4)(B) of the Act contains the word “well-being”, which does not appear in section 1919(d)(4)(B). We do not interpret the presence of this word as requiring separate regulatory treatment of Medicare and Medicaid long term care facilities.

1919 of the Act provide CMS with the authority to issue a regulation revising the existing requirements and to mandate a staffing minimum for nursing care. Under sections 1866 and 1902 of the Act, providers of services in Long Term Care (LTC) facilities seeking to participate in the Medicare or Medicaid program, or both, must enter into an agreement with the Secretary or the State Medicaid agency, respectively. LTC facilities seeking to be Medicare or Medicaid providers of services must be certified as meeting Federal participation requirements. These Federal participation requirements are the basis for survey activities in LTC facilities for ensuring residents' minimum health and safety requirements are met and maintained, to receive payment and remain in the Medicare or Medicaid program or both. LTC facilities include SNFs for Medicare and NFs for Medicaid. The Federal participation requirements for SNFs, NFs, or dually certified facilities, are codified in the implementing regulations at 42 CFR part 483, subpart B. In addition to those provisions, sections 1819(b)(1)(A) and 1919(b)(1)(A) of the Act require that a SNF or NF must care for its residents in such a manner and in such an environment as will promote maintenance or enhancement of the safety and quality of life of each resident. Section 1819(b)(4)(C)(i) of the Act requires that a SNF must provide 24-hour licensed nursing services, sufficient to meet the nursing needs of its residents, and must use the services of a registered professional nurse at least 8 consecutive hours a day. These provisions are largely paralleled at section 1919(b)(4)(C)(i) of the Act for NFs. Sections 1819(f)(1) and 1919(f)(1) of the Act require that the Secretary assure that requirements which govern the provision of care in skilled nursing facilities under this title, and the enforcement of such requirements, are adequate to protect the health, safety, welfare, and rights of residents and to promote the effective and efficient use of public moneys.

In addition, sections 1819(b)(2) and 1919(b)(2) of the Act require that a SNF or NF provide services to attain or maintain the highest practicable physical, mental, and psychosocial well-being of each resident, in accordance with a written plan of care. The plan of care must describe the medical, nursing, and psychosocial needs of the resident and how the needs will be met. The plan of care is developed with the resident or resident's family or legal representative, and by a team which includes the

resident's attending physician and an RN with responsibility for the resident. The plan of care should be periodically reviewed and revised by the team after required assessments. Sections 1819(b)(3) and 1919(b)(3) of the Act require that a SNF or NF conduct a comprehensive, accurate, standardized, reproducible assessment of each resident's functional capacity. Assessments are required to be conducted or coordinated by a registered nurse at specified frequencies.

The participation requirements for LTC facilities (Federal requirements) are set forth at §§ 483.1 through 483.95. In general, the health and safety standards for LTC facilities address facility administration, resident rights, care planning, quality assessment, performance improvement, services provided, emergency preparedness, as well as staffing requirements. Federal requirements state that LTC facilities must use the services of a registered nurse (RN) for at least 8 consecutive hours a day, 7 days a week (§ 483.35(b)(1)), and must provide the services of "sufficient numbers" of licensed nurses and other nursing personnel, which includes but is not limited to nurse aides (NAs), 24 hours a day to provide nursing care to all residents in accordance with the resident care plans (§ 483.35(a)(1)). The LTC facility must also designate an RN to serve as the director of nursing (DON) on a full-time basis (§ 483.35(b)(2)).

While these Federal requirements do specify a specific number of hours that these licensed nurses and other nursing personnel must be available, there is no requirement that those hours be specifically dedicated to direct resident care. With respect to staffing requirements specific to individual residents, such as RN staffing levels per resident, Federal regulations currently require that facilities provide staff sufficient to "assure resident safety and attain or maintain the highest practicable physical, mental, and psychosocial well-being of each resident". Facilities should determine whether this is met through "resident assessments and individual plans of care and considering the number, acuity, and diagnoses or the facility's resident population" (§§ 483.35 and 483.70(e)).

2. The Need for a Minimum Nurse Staffing Requirement in LTC Facilities

On October 4, 2016, we issued a final rule titled, "Medicare and Medicaid Programs; Reform of Requirements for Long-Term Care Facilities" (81 FR 68688). This final rule significantly

revised the list of requirements that LTC facilities must meet to participate in the Medicare and Medicaid programs. Prior to the final rule, LTC facilities' requirements had not been comprehensively reviewed and updated since 1991 (56 FR 48826, September 26, 1991), despite substantial changes in service delivery in this setting. The final rule included revisions that reflect advances in the theory and practice of LTC service delivery and safety. The various revisions sought to achieve broad-based improvements in the quality of care provided in LTC facilities and in resident safety. As part of this 2016 final rule, we revised LTC facilities requirements to include competency requirements for determining the sufficiency of nursing staff, based on a facility assessment requirement that LTC facilities must conduct to determine what resources are needed to competently care for their residents during both day-to-day operations and emergencies. In the 2015 proposed rule, we included a robust discussion regarding the long-standing interest in increasing the required hours of nurse staffing per day and the various literature surrounding the issue of minimum nurse staffing standards in LTC facilities (see 80 FR 42199). In the 2016 final rule, we also included a discussion of the feedback received regarding our competency-based staffing approach (see 81 FR 68688). At the time, we highlighted the importance of establishing national staffing standards to promote safe, high-quality care for residents in LTC facilities and our desire to further explore potential options, however we noted that we needed additional evidence before pursuing potential requirements. We acknowledged that additional literature evidence along with data from sources such as Payroll Based Journal (PBJ) System would be helpful in determining if and what staffing levels should be established as minimum staffing standards to improve safety and the quality of care.⁸ Additionally, the availability of PBJ System data is essential to adequately enforcing oversight of minimum staffing standards. Since issuing the 2016 final rule and establishing a competency-based approach to staffing in the list of LTC requirements, we have collected several years of mandated PBJ System data and new evidence from the literature.

⁸ <https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/NursingHomeQuality/Initiatives/Staffing-Data-Submission-PBJ>.

Additionally, as a part of the FY 2023 Skilled Nursing Facility Prospective Payment System Proposed Rule Request for Information (FY 2023 SNF PPS RFI) discussed later in this proposed rule, commenters provided examples of ongoing quality and safety concerns within understaffed LTC facilities. These included, but are not limited to, residents going entire shifts without receiving toileting or days without bathing assistance, increases in falls, residents not receiving basic feeding or changing services, and even abuse in cases where no one was watching. The 2022 Nursing Home Staffing Study (also discussed later in this proposed rule) corroborated these comments and identified that basic care tasks, such as bathing, toileting, and mobility assistance, are often delayed when LTC facilities are understaffed. Interviews with various nurse staff highlighted ongoing concerns that care is often rushed, including for high-acuity residents, which can often lead to errors or safety issues.

The COVID-19 Public Health Emergency (PHE) highlighted and exacerbated the long-standing concerns with inadequate staffing in LTC facilities. However, the COVID-19 PHE also yielded evidence that appropriate staffing made a difference as a part of the overall response to the COVID-19 PHE in LTC facilities. The Centers for Disease Control and Prevention (CDC) noted that nursing home residents were at high risk for infection, serious illness, and death from the COVID-19 infection and Medicare beneficiaries were disproportionately impacted by the COVID-19 infection, with 76 percent of COVID-19 related deaths attributed to the people aged 65 years and older by the end of 2021.⁹ One study looking at 4,254 LTC facilities across eight States found that there were fewer COVID-19 cases in LTC facilities with four or five stars for nurse staffing in the Five Star Quality Rating System than in counterpart facilities with one to three stars for staffing.¹⁰ These findings suggest that LTC facilities with low nurse staffing levels may have been more susceptible to the spread of the COVID-19 infection. Findings from a recent 2020 study involving all 215 nursing homes in Connecticut revealed that a 20-minute increase in RN time spent providing direct care to residents was associated with 22 percent fewer

confirmed cases of COVID-19 and 26 percent fewer COVID-19 related deaths.¹¹ These findings suggest that there is a positive relationship between the hours of direct care that RNs provide and infection transmission in LTC facilities.

Workforce challenges have contributed to understaffing and nurse burnout. The lack of adequate staffing impedes staff members' ability to devote adequate time and attention to each resident. One study looked at the impact of nurse burnout on organization and position turnover. Findings indicated that 54 percent of the nurses sampled suffered from moderate burnout and the impact of burnout on organizational turnover was significant.¹² While workforce challenges have existed for years, and have many contributing factors, interested parties have reported that the COVID-19 PHE exacerbated the problem as many long-term care facilities experienced high worker turnover. Potential factors contributing to this turnover include higher rates of worker reported-stress; an inability of some workers to return to their positions held prior to the pandemic (for instance, due to difficulty accessing child care or concerns about contracting the COVID-19 infection for people with higher risk of severe illness); high rates of mortality among long-term-care workers; and lower pay and job quality in long-term care settings relative to others, such as more competitive wage increases in retail and other industry jobs that tend to draw from the same pool of workers.^{13 14 15} Although the COVID-19 PHE has officially ended, the long-term care nursing workforce has

been slower to recover than the nursing workforce in other healthcare settings, although it has steadily increased over the past year and a half.^{16 17} Demand for direct care workers is also expected to continue rising due to the growing needs of the aging population.^{18 19}

The studies discussed in this section, corroborated by public comment submissions, input provided through listening sessions, and the 2022 Nursing Home Staffing Study, demonstrate the consequences of understaffing on resident health and safety. Yet, ongoing insufficient staffing as well as the widespread variability in existing minimum staffing standards across the United States (for example, 38 States and the District of Columbia have minimum nursing staffing standards; however, there are significant variations in their requirements) highlights the need for national minimum staffing standards for direct care in LTC facilities.

Chronic understaffing continues in LTC facilities, and evidence demonstrates the benefits of increased nurse staffing in these facilities. For example, a report by the Office of the Inspector General (OIG) highlighted that in 2018, roughly 7 percent of nursing homes failed to provide 8 hours per day of RN staffing on at least 30 total days during the year.²⁰ Some studies have demonstrated that increased staffing levels were specifically beneficial to vulnerable subpopulations in nursing homes, such as residents with dementia or Alzheimer's disease. One cross sectional study of long-stay residents with Alzheimer's disease and related dementias found that residents in

¹¹ <https://agsjournals.onlinelibrary.wiley.com/doi/epdf/10.1111/jgs.16689>.

¹² Kelly LA, Gee PM, Butler RJ. Impact of nurse burnout on organizational and position turnover. *Nurs Outlook*. 2021 Jan-Feb;69(1):96–102. doi: 10.1016/j.outlook.2020.06.008. Epub 2020 Oct 4. PMID: 33023759; PMCID: PMC7532952.

¹³ Campbell, S., A. Del Rio Drake, R. Espinoza, K. Scales. 2021. *Caring for the future: The power and potential of America's direct care workforce*. Bronx, NY: PHI. Accessed at <http://phinational.org/wp-content/uploads/2021/01/Caring-for-the-Future-2021-PHI.pdf>.

¹⁴ Gasdaska, A., Segelman, M., Porter, K.A., Huber, B., Feng, Z., Barch, D., Squillace, M., Dey, J., & Oliveira, I. *Nursing Home Staffing Disparities were Exacerbated during the COVID-19 Pandemic in 2020* (Research Brief). Washington, DC: Office of the Assistant Secretary for Planning and Evaluation, U.S. Department of Health and Human Services. September 12, 2022. Accessed at <https://aspe.hhs.gov/sites/default/files/documents/e37945b7d88efb005839a876660a59fb/nh-staffing-disparities-brief.pdf>.

¹⁵ Ochieng, N., Chidambaram, P., Musumeci, M. *Nursing Facility Staffing Shortages During the COVID-19 Pandemic*. Apr 04, 2022. Kaiser Family Foundation. Accessed at <https://www.kff.org/coronavirus-covid-19/issue-brief/nursing-facility-staffing-shortages-during-the-covid-19-pandemic/>.

¹⁶ Refer, for example, to a report from the Kaiser Family Foundation indicating that as of March 20, 2022, 28% of nursing facilities reported a staffing shortage, as reported in Ochieng, N., Chidambaram, P., Musumeci, M. *Nursing Facility Staffing Shortages During the COVID-19 Pandemic*. Apr 04, 2022. Kaiser Family Foundation. Accessed at <https://www.kff.org/coronavirus-covid-19/issue-brief/nursing-facility-staffing-shortages-during-the-covid-19-pandemic/>.

¹⁷ https://data.bls.gov/timeseries/CES6562300001?amp%253bdato%253btool=XGtable&output_view=data&include_graphs=true.

¹⁸ Campbell, S., A. Del Rio Drake, R. Espinoza, K. Scales. 2021. *Caring for the future: The power and potential of America's direct care workforce*. Bronx, NY: PHI <http://phinational.org/wp-content/uploads/2021/01/Caring-for-the-Future-2021-PHI.pdf>.

¹⁹ Centers for Medicare & Medicaid Services. *November 2020. Long-Term Services and Supports Rebalancing Toolkit*. Accessed at <https://www.medicare.gov/medicaid/long-term-services-supports/downloads/ltss-rebalancing-toolkit.pdf>.

²⁰ Office of Inspector General (OIG), *Some Nursing Homes' Reported Staffing Levels in 2018 Raise Concerns; Consumer Transparency Could Be Increased*, OEI-04-18-00451, August 2020. <https://oig.hhs.gov/oei/reports/oei-04-18-00450.asp>.

⁹ March 2022 Report to the Congress: Medicare Payment Policy, MEDPAC.

¹⁰ Figueroa JF, Wadhera RK, Papanicolaos I, et al. Association of Nursing Home Ratings on Health Inspections, Quality of Care, and Nurse Staffing With COVID-19 Cases. *JAMA*. 2020;324(11):1103–1105. doi:10.1001/jama.2020.14709.

nursing homes that had higher licensed nurse staffing levels had better end-of-life care and were less likely to experience potentially avoidable hospitalizations.²¹ Yet, the literature evidence suggests that staffing levels within facilities across the United States vary considerably, with less staffed facilities more likely to be for-profit, larger, rural, and have a higher share of Medicaid residents.

Finally, multiple studies have shown that nursing home quality is generally lower in LTC facilities that serve high proportions of minority residents.^{22 23 24} Facilities that have a higher proportion of minority residents tend to have limited clinical and financial resources, low nurse staffing levels, and a high number of care deficiency citations.^{25 26} Furthermore, disparities in safety and quality care exist between LTC facilities with a high number of Medicaid residents and LTC facilities that have a high number of Medicare residents.²⁷ These disparities can contribute to differences in quality across facilities' sites.²⁸

As such, we believe that national minimum staffing standards in LTC facilities and the adoption of a 24/7 RN and enhanced facility assessment requirements (as discussed later in this proposed rule), will help to advance equitable, safe, and quality care for all residents. Specifically, we propose individual minimum nurse staffing standards of 0.55 hours per resident day (HPRD) for RNs and 2.45 HPRD for NAs, that were developed using case-mix adjusted data sources. There were several considerations that helped us arrive at these proposed standards (discussed in detail later in this proposed rule). First, the evidence and findings from the 2022 Nursing Home Staffing Study demonstrated that there

was a statistically significant difference in safety and quality care at 0.45 HPRD for RNs and higher including 0.55 HPRD; there was a statistically significant difference in safety and quality care at 2.45 HPRD and higher for NAs. Second, we evaluated existing State requirements and note that the proposed RN requirement of 0.55 HPRD is higher than every State and only lower than the District of Columbia (DC) based on September 2022 data. Third, we aimed to strike an appropriate balance between cost and benefit that would yield the strongest improvements in quality and safety for residents. We are not proposing minimum staffing standards based on HPRD for licensed nurses, that is, RNs plus LPN/LVNs, nor for total nurse staffing, that is, RNs, LPN/LVNs, and NAs because of evidence in the literature described below.

This proposed policy is based on statistical evidence from clinical settings which suggests that more positive clinical outcomes are associated with increasing the number of RNs and NAs. We are not setting a minimum staffing standard for LPN/LVNs. In addition, as noted in the next section, it has been reported in the literature that LPN/LVNs may find themselves practicing outside their scope of practice when there is not sufficient RN staffing in a facility to provide supervision. This is concerning because LPN/LVNs require an RN or a physician's supervision to practice. Furthermore, total licensed nurse staffing standards may ensure adequate levels of licensed nurse staffing and allow nursing homes the flexibility to substitute nurse type for example LPN/LVNs for RNs, or NAs for LPN/LVNs, but may result in compromising the safety and quality of care. Multiple studies have found no evidence of a consistent relationship of quality and safety with LPN staffing.²⁹ First, literature evidence suggests that there is a negative correlation between LPN and RN staffing, indicating that nursing homes with higher LPN staffing levels tend to have lower RN staffing levels.³⁰ Second, the 2022 Nursing Home Staffing Study did not demonstrate an

association between LPN/LVNs' HPRD, at any level, and safe and quality care.³¹

Many studies indicate that consistent, adequate nurse staffing is correlated with resident health and safety, but we seek additional information to make fully informed policy decisions. We welcome input from interested parties on the considerations and proposals discussed in this rule, and other comments that may be relevant. We encourage commenters to submit evidence and data to support any recommendations to the extent possible. We continue to seek additional information that supports our efforts for improving the safety and quality of care for residents within LTC facilities, including feedback on how to improve care transitions and discharge planning, such as information about and assistance with programs that assist with community placements.

We are soliciting comments and recommendations in this area and have also included specific information requests that are embedded throughout this rule regarding certain proposals. We seek this information in anticipation that additional comments and recommendations will assist us in ensuring that we finalize appropriate minimum staffing standards to ensure the health and safety of residents and provide staff the support they need to care for residents while also considering the limited resources including the local supply of RNs and NAs, that may exist as the long-term care sector recovers from the COVID-19 PHE and an increased demand due to a growing older population.

3. CMS Actions and Key Considerations To Inform Mandatory Minimum Staffing Standards

In February 2022, President Biden announced a comprehensive set of reforms aimed at improving the safety and quality of care within the nation's nursing homes. One key initiative within the Biden-Harris Administration's strategy is to establish a minimum nursing home staffing requirement for LTC facilities participating in Medicare and Medicaid.³² Establishing minimum staffing standards improves the likelihood that all nursing home residents are provided safe, high-quality

²¹ Jessica Orth, Yue Li, Adam Simning, Sheryl Zimmerman, Helena Temkin-Greener, End-of-Life Care among Nursing Home Residents with Dementia Varies by Nursing Home and Market Characteristics *Journal of the American Medical Directors Association*, Volume 22, Issue 2, 2021, Pages 320–328.e4, ISSN 1525–8610, <https://doi.org/10.1016/j.jamda.2020.06.021>.

²² <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3805666/>.

²³ <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4108174/>.

²⁴ <https://onlinelibrary.wiley.com/doi/epdf/10.1111/1475-6773.12079>.

²⁵ [https://www.jamda.com/article/S1525-8610\(21\)00243-7/fulltext](https://www.jamda.com/article/S1525-8610(21)00243-7/fulltext).

²⁶ <https://www.healthaffairs.org/doi/full/10.1377/hlthaff.2015.0094>.

²⁷ Mor, Vincent et al. "Driven to tiers: socioeconomic and racial disparities in the quality of nursing home care." *The Milbank quarterly* vol. 82,2 (2004): 227–56. doi:10.1111/j.0887–378X.2004.00309.x.

²⁸ <https://www.healthaffairs.org/doi/full/10.1377/hlthaff.2015.0094>.

²⁹ Abt Associates. (2022). Nursing Home Staffing Study Comprehensive report. Report prepared for the Centers for Medicare & Medicaid Services.

<https://edit.cms.gov/files/document/nursing-home-staffing-study-final-report-appendix-june-2023.pdf>.

³⁰ Abt Associates. (2022). Nursing Home Staffing Study Comprehensive report. Report prepared for the Centers for Medicare & Medicaid Services.

<https://edit.cms.gov/files/document/nursing-home-staffing-study-final-report-appendix-june-2023.pdf>.

³¹ Abt Associates. (2022). Nursing Home Staffing Study Comprehensive report. Report prepared for the Centers for Medicare & Medicaid Services.

<https://edit.cms.gov/files/document/nursing-home-staffing-study-final-report-appendix-june-2023.pdf>.

³² <https://www.whitehouse.gov/briefing-room/statements-releases/2022/02/28/fact-sheet-protecting-seniors-and-people-with-disabilities-by-improving-safety-and-quality-of-care-in-the-nations-nursing-homes/>.

care, and that workers have the support they need to provide high-quality care.

To help inform our efforts in establishing consistent and broadly applicable national minimum staffing standards, we launched a multi-faceted approach aimed at determining the minimum level and type of staffing needed to enable safe and quality care in LTC facilities. This effort included issuing the FY2023 SNF PPS RFI,³³ hosting listening sessions with various interested parties, and conducting a 2022 Nursing Home Staffing Study, which builds on existing evidence and several research studies using multiple data sources. In addition to launching our multi-faceted approach, we considered how any potential minimum staffing standards affect other CMS programs and/or initiatives as well as the enforceability of such standards. Our strategic approach and considerations are discussed later in this section.

a. Request for Information in the FY 2023 Skilled Nursing Facility Prospective Payment System Proposed Rule (FY 2023 SNF PPS RFI)

We published the FY 2023 SNF PPS RFI in April 2022, soliciting public comments on minimum staffing standards. In response to the FY 2023 SNF PPS RFI, we received over 3,000 comments from a variety of parties interested in addressing LTC facilities' issues including advocacy groups, long-term care ombudsmen, industry associations (providers), labor unions and organizations, nursing home residents, staff and administrators, industry experts, researchers, family members, and caregivers of residents in LTC facilities.

Notably, industry associations and resident advocates expressed divergent views on the establishment of minimum staffing standards. Resident advocacy groups and family members of residents were strongly supportive of establishing minimum staffing standards, while industry and provider groups expressed significant concern and opposition to such standards.

Commenters supporting the establishment of minimum staffing

standards voiced safety concerns regarding residents not receiving adequate care due to chronic understaffing in facilities. For example, residents going entire shifts without receiving toileting assistance, which can lead to an increase in falls or the development or worsening of pressure ulcers. Commenters noted that NAs barely have time to get each resident dressed, fed, and bathed; that residents lie for hours in wet and soiled diapers; that residents who need help to eat struggle to feed themselves; and that residents suffer abuse from staff and other residents because no one is watching. Commenters also shared stories of residents wearing the same outfit for a week without a change of clothing or a shower. Commenters highlighted the contribution of facility staff and attributed the lack of quality care to insufficient staffing levels.

Commenters also offered recommendations for implementing minimum staffing standards including staffing with a RN on every shift. Some commenters suggested that CMS focus on implementing an acuity (that is, the medical complexity and needs of a resident) staffing model per shift as part of any minimum staffing standards. Others recommended that minimum staffing standards be established for residents with the lowest care needs, assessed using the Minimum Data Set (MDS) 3.0 assessment forms, citing concerns that acuity-based minimum standards will be more susceptible to gaming around composition of the patient population (that is, avoiding taking on residents with more complex medical needs).

Concerns raised by the local ombudsmen in the 2020 OIG Report on staffing levels echoed those raised by commenters. Some of the concerns identified in the OIG Report as a result of understaffing include residents' call lights going unanswered, medication errors, untreated wounds, and inadequate bathing, including residents going a week without a shower. The ombudsmen also focused on problems related to weekend staffing below required levels, resulting in resident falls and altercations between residents; the ombudsmen attributed such outcomes to facilities' inadequate leadership, as well as insufficient numbers of NAs.³⁴ This information supports what was shared with us during the listening sessions as well as

during the public comment period on the FY 2023 SNF PPS RFI.

Commenters also provided information on several resident and facility factors for consideration when assessing a facility's ability to meet any mandated staffing standards, including whether the facility has a high Medicaid census, high bed count, for-profit ownership, high SNF competition within the same county, high community poverty rates, low Medicare census, and for staffing, availability of RNs specifically. Other commenters stated that resident acuity should be a primary determinant in establishing minimum staffing standards, noting that CMS pays nursing homes based on resident acuity level.

We also received comments on factors impacting facilities' ability to recruit and retain staff, with most commenters in support of creating avenues for competitive wages for nursing home staff to address issues of recruitment and retention. Other commenters, however, suggested that year-over-year reductions in skilled nursing facility payments complicate facilities' ability to increase staff wages and benefits.

Finally, we received differing comments on the study design, payment, and cost impacts of establishing minimum staffing standards. Some commenters indicated that there is variability in Medicaid labor reimbursement amounts and many States' Medicaid rates do not keep up with rising labor costs. Others, however, noted that most facilities have adequate resources to increase their staffing levels without additional Medicaid resources, and cited a recent study that suggests that most major publicly traded nursing home companies were highly profitable, even during the COVID-19 PHE. Commenters provided robust feedback on the study design and method for implementing nurse staffing standards, while others noted that resident acuity could change on a daily basis and recommended that CMS establish benchmarks rather than absolute values in staffing standards. Other commenters recommended using both minimum nurse HPRD and nurse to resident ratios.

Additionally, we note that several members of Congress have provided input regarding the establishment of minimum staffing standards. While some Members of Congress have expressed concern that requiring minimum staffing standards could create access issues for rural communities, other Members of Congress have expressed support for establishing minimum staffing

³³ Medicare Program; Prospective Payment System and Consolidated Billing for Skilled Nursing Facilities; Updates to the Quality Reporting Program and Value-Based Purchasing Program for Federal Fiscal Year 2023; Request for Information on Revising the Requirements for Long-Term Care Facilities To Establish Mandatory Minimum Staffing Levels. A Proposed Rule by the Centers for Medicare & Medicaid Services on 04/15/2022 <https://www.federalregister.gov/documents/2022/04/15/2022-07906/medicare-program-prospective-payment-system-and-consolidated-billing-for-skilled-nursing-facilities>.

³⁴ Office of Inspector General Data Brief (August, 2020) Some Nursing Homes' Reported Staffing Levels in 2018 Raise Concerns; Consumer Transparency Could Be Increased. OEI-04-18-00450. <https://oig.hhs.gov/oei/reports/OEI-04-18-00450.pdf>.

standards for LTC facilities.³⁵ We appreciate the thoughtful feedback from commenters and have considered the varying feedback that we received to inform the staffing study design and proposal for minimum staffing standards discussed in this rule.

b. The 2022 Nursing Home Staffing Study³⁶

The CMS commissioned a nursing home staffing study in 2001, entitled “Appropriateness of Minimum Nurse Staffing Ratios in Nursing Homes”,³⁷ commonly referred to as the 2001 CMS Staffing Study, that focused on two empirical analyses related to the link between staffing and quality: (1) whether there is a nurse staffing ratio above which no additional improvements in quality are observed, and (2) what nurse staffing thresholds are minimally necessary to provide care processes consistent with the Omnibus Budget Reconciliation Act (OBRA) of 1987 optimal standards and related regulations.

The study findings identified nursing home staffing thresholds beyond which additional staff did not lead to significant further improvements in care. These staffing levels, expressed in HPRD, varied by outcomes—short-stay or -long-stay- quality measures, by nurse staff type, and by level of nurse staffing. Depending on the nature of the nursing home population (case-mix), these thresholds ranged between: 0.55 to 0.75 HPRD for RNs; 1.15 to 1.30 HPRD for licensed nurses (RNs and LPN/LVNs); and 2.4 to 2.8 HPRD for NAs. The 2001 study also reported that “[m]inimum staffing levels at any level up to these thresholds are associated with incremental quality improvements, with the greatest benefits as these thresholds are approached.” In other words, 4.1 HPRD was the highest HPRD of

combined NAs and licensed staff (RNs/ LPN/LVN) for long-stay measures beyond which no further improvement in safety and quality was observed. The 4.1 HPRD drawn from the 2001 Study is commonly misinterpreted as the minimum total nurse staffing that is needed to protect resident health and safety.

The CMS also commissioned a simulation analysis (“time motion study”) on NA time expended for providing five key care processes,³⁸ in addition to routine care, to determine an HPRD level for NAs to provide optimal nursing care. The study findings suggest that the NA HPRD level ranged between 2.8 (low workload facility) and 3.2 HPRD (high workload facility) for NAs only, depending on the NA workload requirements which was based on the nursing home resident population.

Given the growing body of evidence demonstrating the importance of staffing to resident health and safety, the continued insufficient staffing, and variability in nurse-to-resident ratios across States, creating a consistent floor will reduce the risk of residents receiving unsafe and low-quality care. In 2022, given the age of the 2001 study and the persistent chronic nurse understaffing linked to poor safety and quality care, which was exacerbated by the COVID-19 PHE, we commissioned a new nursing home study that focused on a non-empirical analysis and four empirical analyses to develop minimum staffing standards using case-mix adjusted data sources, as well as staffing types and levels for improving safety and quality care in nursing homes.

These non-empirical and empirical analyses, also known as study tasks, included a systematic literature review, qualitative analysis of data collected using interviews and surveys conducted during scheduled site visits, an observation study (“similar to the time motion study”) followed by simulation modeling analysis for licensed nurses (RNs and LPN/LVNs), quantitative analyses which included descriptive and impact analyses, and cost analyses. The key takeaways from the multifaceted approach are:

- Recent literature as well as testimonials from nursing home staff, residents, and family members underscore the relationship between staffing and care quality; however, there is no clear, consistent, and universal methodology for setting specific minimum staffing standards, as

evidenced by the varying current standards across certain States.

- Nurse staffing levels vary considerably nationwide by LTC facilities’ characteristics, such as location, size, and profit status and States. Thirty-eight States and the District of Columbia have minimum staffing standards, which vary considerably. We note that the proposed RN requirement of 0.55 HPRD is higher than every State, and only lower than the District of Columbia (DC) based on data from September 2022. Our proposed NA requirement of 2.45 HPRD is higher than all States and DC, based on data reported in September 2022.^{36 39} To reiterate, LTC facilities would be required to meet both the proposed 0.55 HPRD for RNs and the 2.45 HPRD for NAs.

- The relationship between staffing and quality of care and safety, varies by staff type and level as follows:

- ++ RN hours per resident day of 0.45 or more have a strong association with safety and quality care.

- ++ NA hours per resident day of 2.45 or more also have a strong association with safety and quality care.

- ++ LPN/LVN hours per resident day, at any level, do not have any association with safety and quality of care.^{40 41 42}

- Increasing nursing staffing level is associated with costs, namely financial costs to LTC facilities, as well as benefits, including enhanced safety and quality to varying degrees.

In brief, the 2022 Nursing Home Staffing Study was conducted as a general framework to survey different sources of information and to conduct different types of analyses to help inform the minimum staffing decision process, while considering the potential

³⁵ Sen Tester, Nursing Home Staffing Mandate, 2023; <https://www.testersenate.gov/wp-content/uploads/1-20-23-Nursing-Home-Staffing-Mandate-Letter-FINAL.pdf>; Sen Casey, Wyden, et al, Nursing Home Staffing Mandate, 2023; https://www.aging.senate.gov/imo/media/doc/letter_to_cms_re_regulations_to_establish_minimum_staffing_levels_in_nursing_homes.pdf; Doggett, Schakowsky Lead Effort Pressing for Strong Nursing Home Staffing Standards | Congressman Lloyd Doggett (house.gov), <https://doggett.house.gov/media/press-releases/doggett-schakowsky-lead-effort-pressing-strong-nursing-home-staffing-standards>.

³⁶ Abt Associates. (2022). Nursing Home Staffing Study Comprehensive report. Report prepared for the Centers for Medicare & Medicaid Services. <https://edit.cms.gov/files/document/nursing-home-staffing-study-final-report-appendix-june-2023.pdf>.

³⁷ Appropriateness of Minimum Nurse Staffing Ratios in Nursing Homes (2001) https://www.justice.gov/sites/default/files/elderjustice/legacy/2015/07/12/Appropriateness_of_Minimum_Nurse_Staffing_Ratios_in_Nursing_Homes.pdf.

³⁸ Five care processes were the following: (1) dressing/grooming; (2) exercise; (3) feeding assistance; (4) changing and repositioning; and (5) providing toileting assistance.

³⁶ Payment and Access Commission (MACPAC). (2022a). Medicaid and CHIP Payment and Access Commission (MACPAC). (2022a). Compendium: State policies related to nursing facility staffing. <https://www.macpac.gov/publication/statepolicies-related-to-nursing-facility-staffing/>.

³⁹ Consumer Voice (The National Consumer Voice for Quality Long-Term Care) (2021). State nursing home staffing standards: Summary report <https://theconsumervoice.org/issues/otherissues-and-resources/staffing>.

⁴⁰ Akinci, Fevzi, and Diane Krolkowski. “Nurse staffing levels and quality of care in Northeastern Pennsylvania nursing homes.” Applied nursing research: ANR vol. 18,3 (2005): 130–7. doi:10.1016/j.apnr.2004.08.004.

⁴¹ Yang, Bo Kyum et al. “Nurse Staffing and Skill Mix Patterns in Relation to Resident Care Outcomes in US Nursing Homes.” *Journal of the American Medical Directors Association* vol. 22,5 (2021): 1081–1087.e1. doi:10.1016/j.jamda.2020.09.009.

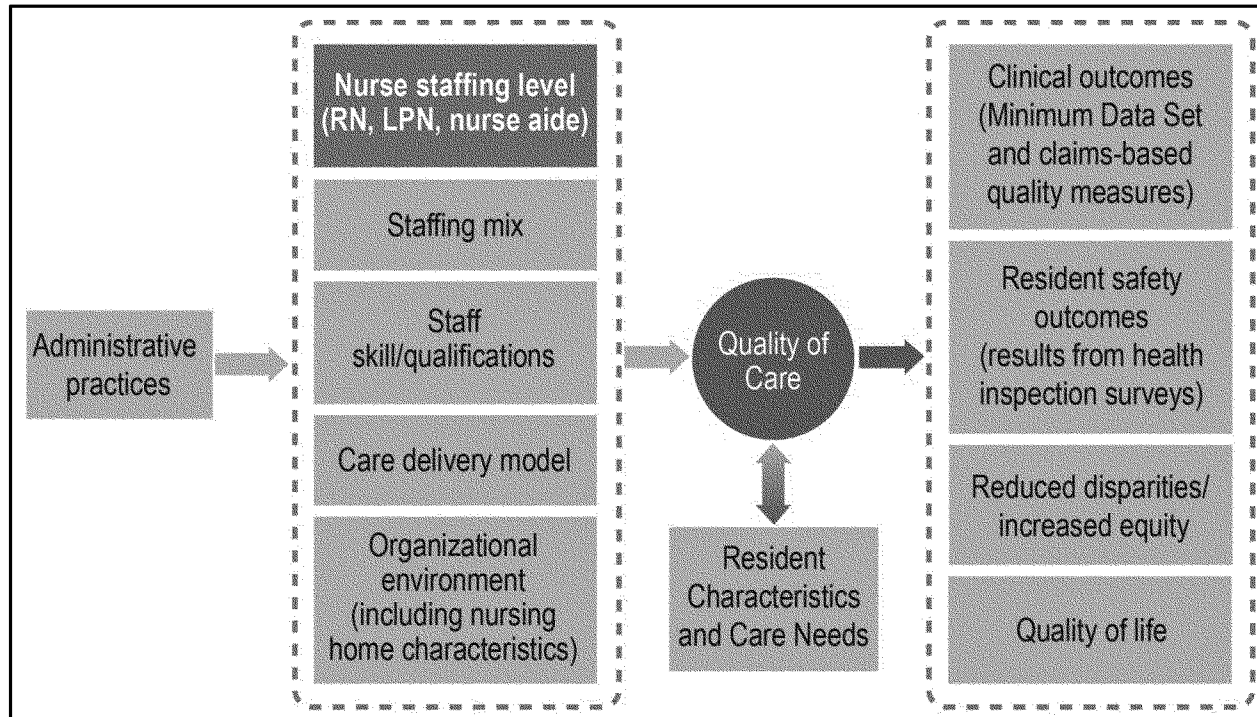
⁴² Spilsbury, Karen et al. “The relationship between Nurse staffing and quality of care in nursing homes: a systematic review.” *International journal of nursing studies* vol. 48,6 (2011): 732–50. doi:10.1016/j.ijnurstu.2011.02.014.

cost and benefit. The study⁴³ was unable to examine the relationship between staffing levels by shift and quality/patient safety because the PBJ System does not include information on staffing by shift. In addition, there was limited information on non-nurse staffing, so the study team was unable to examine minimum staffing standards for non-nurse staff.

Unlike the 2001 CMS Staffing Study, the 2022 Nursing Home Staffing Study was guided by a conceptual model (see Figure 1), that hypothesizes that administrative practices (for example, nurse staffing levels, staffing mix, care delivery model, and organizational environment) influence the quality and safety of care provided in a nursing home, which, in turn, influences

nursing home residents' outcomes (that is, clinical, safety, and disparity). Clinical outcomes were defined using Care Compare quality measures derived from the MDS and Medicare claims data. Patient safety was defined using measures from health inspection surveys.

FIGURE B-1: Conceptual Model for Nursing Home Staffing Study.



Adapted from Clarke & Donaldson (2008). Clarke SP, Donaldson NE. Nurse Staffing and Patient Care Quality and Safety. In: Hughes RG, editor. Patient Safety and Quality: An Evidence-Based Handbook for Nurses. Rockville (MD): Agency for Healthcare Research and Quality (US); 2008 Apr. Chapter 25. <https://www.ncbi.nlm.nih.gov/books/NBK2676/>.

(1) Systematic Literature Review

The overall goal of the systematic literature review was to summarize timely and current evidence of the relationship between minimum staffing standards in nursing homes and the safety and quality of care, as well as clarify the relative strengths and weaknesses of the available literature. In addition, the systematic literature review of existing peer-reviewed and “gray literature” (that is, published outside the traditional research publications such as opinion pieces, advocacy materials, and non-statistically rigorous research published by government agencies) which includes printed articles, for the initial period 2019–2022, and prior to 2019 if

needed, focused on addressing the following questions:

- What is the relationship between nurse staffing levels and safety and quality of care? What minimum staffing levels associated with safety and quality of care have been identified in previous studies, and what is the empirical basis for them?
- What are the current State and Federal standards for staffing level/types and outcomes in nursing homes for weekdays, weekends, and evenings?
- What is the role of different nurse types (that is, RNs/LPN/LVNs/NAs) in ensuring safety and quality of nursing home care?
- What are the costs associated with nurse staffing in nursing homes? What

are the costs associated with implementing minimum nurse staffing standards and increasing nurse staffing levels/types?

Most importantly, an increase in nurse staffing was associated with improved quality of care. In a 2021 study, where interview data were examined, and multivariate analyses of resident outcomes were conducted, authors concluded that higher total nurse staffing had a significant correlation with a decreased number of pressure ulcers, an increase in influenza vaccination, an increase in pneumonia vaccination, and decreased number of

⁴³ Abt Associates. (2022). Nursing Home Staffing Study Comprehensive report. Report prepared for

the Centers for Medicare & Medicaid Services.

<https://edit.cms.gov/files/document/nursing-home-staffing-study-final-report-appendix-june-2023.pdf>.

outpatient emergency department visits.⁴⁴

However, the OBRA of 1987,⁴⁵ which amended sections 1819 and 1919 of the Act to mandate staffing standards in nursing homes, did not mandate specific numerical minimum nurse staffing standards. As such several States mandated variable staffing standards to help meet the standards in sections 1819 and 1919 of the Act.

As stated in the 2022 Nursing Home Staffing Study report,⁴⁶ which will be published concurrently with this proposed rule, studies found that States that established higher nurse staffing standards resulted in increased staffing within nursing homes, but the magnitude of this increase varied by the staff type. For example, authors found that when the States of California and Ohio required increased licensed nurse or total nurse staffing standards, this resulted in some actual increase in staffing levels. California required facilities to increase the hours for direct resident care per day from 3.0 to 3.2 and prohibited the previous practice of allowing RN or LPN hours to be counted twice, also known as “doubling”. The rationale for doubling was to increase the number of licensed staff. Ohio law required facilities to increase total nurse staffing (RN, LPN/LVN, and NA) direct care hours from 1.6 to 2.75. Results showed that for both California and Ohio, nursing homes that ranked in the bottom quartile at baseline on total nurse staffing significantly increased their HPRDs for all three types of nursing staff (RN, LPN/LVN, and NA). However, there was a reduction in professional skill mix, meaning there were fewer RNs relative to other direct care staff, 71 percent of the increase in nursing staff represented an increase in NA hours.⁴⁷

Another study, when controlling for changes in State minimum direct care staffing standards during the study period, in Arkansas, Delaware, Florida, and Ohio, found that nursing homes

serving a higher share of Medicaid patients reported large increases in staffing, specifically RNs, in response to a one HPRD increase in total nurse staffing from a baseline of 2.0 HPRD requirement for total nurse staffing.⁴⁸ In sum, studies found that nursing homes in States with higher minimum staffing standards employed more staff.

Most LTC facilities typically have nurse teams providing care to residents with very few RNs (8 percent) making up the team, compared to other nurse team members, (that is, administrative RNs, LPN/LVNs and unlicensed assisting staff)^{49, 50} which suggests that LPN/LVNs provide most of the clinical care with minimal supervision from RNs.⁵¹ Other study findings suggest that some Directors of nursing (DONs) view the roles of RNs and LPN/LVNs interchangeably despite the difference in educational preparation and scope of practice. Yet, study findings suggest that having more RNs in LTC facilities to provide clinical skills and supervision of LPNs positively influences LPNs contributions to improved quality care.⁵² In summary, the presence of more RNs on a team influences the quality of care provided.

Based on gray literature, a coalition of resident nursing home advocates and the National Academies of Sciences, Engineering, and Medicine recommended RN coverage, with at least one RN, for 24 hours a day, 7 days a week, with additional RN coverage if needed, as part of the minimum staffing standards.^{53, 54}

Several costs for increasing nurse staffing were cited in the literature, we note that these costs differ from our estimated costs as set out in this proposed rule. For example, in one study, by trade groups representing the industry, 4.1 HPRD for total nurse staffing (that is, RNs, LPN/LVNs and NAs) was found to cost the long-term care industry more than \$10 billion annually.⁵⁵ Another study estimated that the additional staffing costs to meet the 4.1 HPRD for total nurse staffing as \$7.25 billion.⁵⁶ In summary, several studies found that higher levels of nurse staffing, including RNs, were associated with improved resident care outcomes and increased costs.

(2) Qualitative Analysis

Thirty-one nursing homes were selected for scheduled site visits in 14 States, specifically California, Colorado, Florida, Illinois, Massachusetts, Maryland, Missouri, North Carolina, New York, Ohio, Pennsylvania, Virginia, Washington, and Wyoming. These site visits started in September 2022, and ended in December 2022. nursing homes were selected to ensure a national representation by size, ownership type, geographic location, Medicaid population, and overall rating under the *Five-Star Quality Rating System*. Nursing homes voluntarily participated in these site visits and no incentives were offered. Site visit protocols and interview guides were reviewed and approved by Abt Associates Inc. Institutional Review Board.⁵⁷ Site visits were conducted under the Nursing Home Reform Law in the Omnibus Budget Reconciliation Act of 1987 (OBRA '87) (Pub. L. 100–203), which is exempt from the Paperwork Reduction Act (PRA).

During site visits, interviews (n=361) were conducted with 76 nursing home leadership, 195 direct care staff

⁴⁸ Bowblis, John R. “Staffing ratios and quality: an analysis of minimum direct care staffing requirements for nursing homes.” *Health services research* vol. 46,5 (2011): 1495–516. doi:10.1111/j.1475-6773.2011.01274.x.

⁴⁹ American Health Care Association (2012) LTC stats: Nursing facility operational characteristics report. Retrieved from http://www.ahcancal.org/research_data/oscar_data/Nursing%20Facility%20Operational%Characteristics/LTC+STATS_PVNFOPERATIONS_2012Q4_FINAL.pdf.

⁵⁰ Siegel, Elena O et al. “Leadership in Nursing Homes: Directors of Nursing Aligning Practice With Regulations.” *Journal of gerontological nursing* vol. 44,6 (2018): 10–14. doi:10.3928/00989134-20180322-03.

⁵¹ Corazzini, Kirsten N et al. “Licensed practical nurse scope of practice and quality of nursing home care.” *Nursing research* vol. 62,5 (2013): 315–24. doi:10.1097/NNR.0b013e31829eba00.

⁵² Corazzini, Kirsten N et al. “Licensed practical nurse scope of practice and quality of nursing home care.” *Nursing research* vol. 62,5 (2013): 315–24. doi:10.1097/NNR.0b013e31829eba00.

⁵³ California Advocates for Nursing Home Reform, Center for Medicare Advocacy, Justice in Aging, Long Term Care Community Coalition, Michigan Elder Justice Initiative, and The National Consumer Voice for Quality Long-Term Care. (2021). Framework for nursing home reform post COVID–19. https://theconsumervoice.org/uploads/files/actionsand-newsupdates/Framework_and_overview_FINAL.pdf.

⁵⁴ National Academies of Sciences, Engineering, and Medicine. (2022). The national imperative to improve nursing home quality: Honoring our commitment to residents, families, and staff. The National Academies Press. <https://doi.org/10.17226/26526>.

⁵⁵ CLA (CliftonLarsonAllen, LLC). (2022). Staffing mandate analysis. In-depth analysis on minimum nurse staffing levels and local impact. American Health Care Association and the National Center for Assisted Living (AHCA/NCAL). <https://www.ahcancal.org/News-and-Communications/Fact-Sheets/FactSheets/CLA-Staffing-Mandate-Analysis.pdf>.

⁵⁶ Hawk, T., White, E.M., Bishnoi, C., Schwartz, L.B., Baier, R.R., & Gifford, D. R. (2022). Facility characteristics and costs associated with meeting proposed minimum staffing levels in skilled nursing facilities. *Journal of the American Geriatrics Society*, 70(4), 1198–1207. <https://doi.org/10.1111/jgs.17678>.

⁵⁷ <https://abtimpact.com/mission-impact-2020/ethics-and-governance/>.

⁴⁴ Wagner, L.M., Katz, P., Karuza, J., Kwong, C., Sharp, L., & Spetz, J. (2021). Medical staffing organization and quality of care outcomes in post-acute care settings. *Gerontologist*, 61(4), 605–614.

⁴⁵ *chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/ https://static1.squarespace.com/static/602ac1a3e7de5cc16ae72d619/t/6043c094b391303a2d1c1418/1615052948879/OBRA87summary.pdf*.

⁴⁶ Abt Associates. (2022). Nursing Home Staffing Study Comprehensive report. Report prepared for the Centers for Medicare & Medicaid Services. <https://edit.cms.gov/files/document/nursing-home-staffing-study-final-report-appendix-june-2023.pdf>.

⁴⁷ Chen, Min M, and David C Grabowski. “Intended and unintended consequences of minimum staffing standards for nursing homes.” *Health economics* vol. 24,7 (2015): 822–39. doi:10.1002/hec.3063.

(including RNs, LPN/LVNs, and NAs), 65 residents, and 25 family members to better understand the relationship between staffing levels, staffing mix (what types of staff are present), and resident outcomes and experiences (that is, clinical outcomes, safety, health disparities). Staff completed 168 Missed Nursing Care (MISSCARE)⁵⁸ surveys to determine any omitted or delayed care.

Findings from data analyses of surveys and interviews highlighted that activities of daily living care tasks, including bathing, toileting, and mobility assistance, are the most frequently delayed tasks when shifts/units are short staffed. Family members also reported that quality of life, quality of care, and resident safety are adversely affected when nursing homes are short staffed. Some staff stated that rushing through care due to having high-acuity residents, meaning that their condition is severe and imminently dangerous, or a high number of assigned residents led to medication errors and safety issues. For example, one nurse stated that being assigned 33 patients without any other staff is not safe. Respondents also noted that different staffing requirements for NAs and licensed nurses, among other factors, should be considered when developing minimum staffing standards. Nursing home staff respondents also suggested minimum staff-to-resident ratios. NA respondents proposed a ratio of 5 to 14 residents per NA, whereas RNs and LPN/LVNs suggested ratios from 8 to 25 residents per licensed nurse (RN and LPN/LVNs). Respondents worked across a variety of shifts, units, and resident types (for example, skilled nursing/rehabilitation, long-term care, total care, dementia care, and behavioral issues), so the acuity of residents they typically supported varied as did the ratios they proposed.

(3) Observation Study/Simulation Modeling

Twenty LTC facilities were selected based on a convenience sampling method for the observation study. Time data of 8,249 unique care tasks were collected via direct observations of licensed nursing staff (that is, RN and LPN/LVNs) providing common clinical tasks including medication pass, resident assessment, wound care, and catheter/device care. Previous simulation modeling research focused on NAs providing non-clinical tasks specifically, activities of daily living

(ADL) tasks,⁵⁹ but not on clinical tasks. Thus, this simulation study was aimed at addressing this gap in knowledge and focused exclusively on specific clinical tasks provided by licensed nurses.

These data were used to develop a simulation model to examine the impact of different levels of licensed nurses and resident acuity, on the quality and timeliness of providing certain care tasks defined as delayed and omitted care respectively. This simulation model is important to add to existing literature on delayed care and help the staffing study reflect not just what staffing levels exist currently as a descriptive model, but also what staffing levels are needed for safe, quality care for residents at varying acuity levels for the studied clinical tasks.

As stated in the 2022 Nursing Home Staffing Study report,⁶⁰ which will be published concurrently with this proposed rule, simulation findings suggest that a staffing level of four licensed nurses (that is, a combination of RNs and LPN/LVNs) in this setting, would reduce the amount of delayed or omitted care for the clinical tasks studied to a rate below 5 percent in a 70-resident nursing home. Five licensed nurses would virtually eliminate delayed or omitted care in this setting. The 4 to 5 licensed nurses correspond to approximately 1.4 to 1.7 HPRD at such a nursing home. However, the study has several limitations. One is that these study observations did not differentiate between RN and LPN/LVN tasks, so we are unable to separate estimates of potential delayed or omitted care for an RN versus an LPN. Most importantly, simulation studies did not incorporate any patient-level data or facility-level data from site observations. Instead, simulations estimated patient acuity using MDS data. Therefore, patient acuity in simulations were based on population-level estimates, rather than estimates at the nursing-home level or the individual patient level.

Because the simulation did not use actual patient- or facility-level data, facilities specializing in treatment of high or low acuity residents were not properly represented in the staffing simulation models. For example,

different staffing needs may arise in facilities specializing in care for persons experiencing disabilities resulting in paraplegia/quadruplegia, or in facilities specializing in persons experiencing advanced cognitive impairment. Analysis of specialized care facilities was outside of the scope of this simulation research. Furthermore, other existing simulation research focused on NAs only, so NAs were considered as part of the evidence base for this work but were not included in the analysis.

(4) Quantitative Analysis

Secondary Analysis: The quantitative analysis used secondary data of nursing homes (n = 14,529) from the CMS' PBJ System, the MDS 3.0, Medicare cost reports, and health inspection surveys to establish minimum staffing standards for different types of nurse staff (that is, total nurse staffing and individual RNs, LPN/LVNs, and NAs) and for non-nurse staff (that is, social workers, feeding assistant, other activities staff, and physical therapy assistant among others) that is associated with an acceptable quality of care and safety in nursing homes. Quality was defined based on a total composite quality measure made up of *Short-Stay Measures* (that is, community discharge, hospital readmissions, emergency department visits, Functional improvement) and *Long-Stay Measures* (that is, activities of daily living decline, antipsychotic medication use, mobility decline, high-risk pressure ulcer, hospitalizations, and emergency department visits).⁶¹

Safety was measured based on the relative on-site health inspection performance of nursing homes within a State using surveys for the following deficiencies: Immediate jeopardy to resident health or safety; Actual harm that is not immediate jeopardy; No actual harm with potential for more than minimal harm that is not immediate jeopardy; and, No actual harm with potential for minimal harm.

Similar to other CMS nursing home improvement quality initiatives such as Value Based Payment for nursing homes, acceptable quality and safety was defined using the 25th and 50th percentile cut-offs on the current distribution of the total quality measure (QM) score and within-State performance on health inspection survey data, based on the predicted probability of nursing homes exceeding the threshold across the full distribution of nurse staffing levels. Moreover, some

⁵⁸ Kalish, B.J., & Williams, R.A. (2009). Development and psychometric testing of a tool to measure missed nursing care. *The Journal of Nursing Administration*, 39(5), 211–219. <https://doi.org/10.1097/nnn.0b013e3181a23cf5>.

⁵⁹ Schnelle, J.F., Schroyer, L.D., Saraf, A.A., & Simmons, S.F. (2016). Determining nurse aide staffing requirements to provide care based on resident workload: A discrete event simulation model. *Journal of the American Medical Directors Association*, 17(11), 970–977. <https://doi.org/10.1016/j.jamda.2016.08.006>.

⁶⁰ Abt Associates. (2022). Nursing Home Staffing Study Comprehensive report. Report prepared for the Centers for Medicare & Medicaid Services. <https://edit.cms.gov/files/document/nursing-home-staffing-study-final-report-appendix-june-2023.pdf>.

⁶¹ Abt Associates. (2022). Nursing Home Staffing Study Comprehensive report. Report prepared for the Centers for Medicare & Medicaid Services. <https://edit.cms.gov/files/document/nursing-home-staffing-study-final-report-appendix-june-2023.pdf>.

nursing homes are staffed at levels that place their residents at substantially higher risk of poor quality (for example, being in the lowest quartile of QM score, defined as the 25th percentile cut off) and low safety (for example, lowest quartile of performance on health inspection survey, defined as the 25th percentile cut off). The PBJ System data for the fourth quarter of 2019 through the first quarter of 2022, for 14,688 Medicare and/or Medicaid certified nursing homes in the United States were included in the analyses.

Descriptive analyses examined HPRD for nurse and non-nurse staff in nursing homes ($n=14,529$) across all States. Regression modeling analyses controlled for case-mix adjusted data for nurse staffing (that is, RN, LPN/LVN, and NA), LTC facility ownership (for example, non-profit, Government), percent of Medicaid residents, hospital-based facility, Continuing Care Retirement Community (CCRC) facility, rural location, number of certified beds (per 1-bed increase), and Special Focus Facility status. Using a correlational descriptive analysis, findings indicate that there is a consistent positive relationship between higher RN staffing and better performance, regardless of the measure (that is, total quality measure score or within-State health inspection score), the performance standard (that is, acceptable quality and safety at the 25th, or 50th percentile), or the case-mix adjusted RN staffing decile measured in HPRD.

Among all nurse staffing types, RNs exhibit the strongest association with acceptable quality ($p<.0001$, significant at $\alpha = 0.05$) and safety (pHowever, similar to previous analyses,^{62 63 64} this study found no relationship between LPN/LVNs HPRD levels and quality care and safety. This finding may be influenced by the LPN/LVN's role⁶⁵ and the fact that nursing homes with higher LPN/LVN staffing levels tend to have

lower RN staffing levels.⁶⁶ The volume and number of HPRD reported in PBJ System for non-nurse staff were very low, ranging from 0.00–0.11; as such were insufficient to examine further for establishing minimum non-nurse staffing standards.

We considered findings from the 2022 Nursing Home Staffing Study, specifically that there was no statistically significant difference in safety and quality care below 2.45 HPRDs for NAs. In other words, staffing below 2.45 HPRD for NAs did not improve safety and quality care for LTC facility residents. Also, our proposed NA requirement of 2.45 HPRD which was developed using case-mix adjusted data sources, is higher than the minimum requirements in all States and DC, based on data reported in September 2022.

We also considered findings from the 2022 Nursing Home Staffing Study that there was no correlation between safety and quality care, and LPN/LVNs. We examined findings from the 2022 Nursing Home Staffing Study, that there was a statistically significant difference in safety and quality care at 0.45 HPRD for RNs and higher. We also factored the minimum RN requirements in all States and the District of Columbia, which with the exception of two States, all had less than the 0.45 HPRD for RNs, which was the lowest level presented in the 2022 Nursing Home Staffing Study. However, current State minimum RN staffing levels are associated with increased risk for unsafe and poor quality care. Therefore, we are proposing the level of 0.55 HPRD for RNs, which was developed based on case-mix adjusted data sources and the 2022 Nursing Home Staffing Study findings. In addition, 0.55 HPRD for RNs will result in a large majority (78 percent) of LTC facilities increasing staffing to provide safe and quality care. CMS is also seeking comments on whether in addition to the 0.55 RN and 2.45 NA HPRD standards, a minimum total nurse staffing standard, such as 3.48 among other alternatives, discussed later in the rule, should also be required.

Furthermore, we considered striking a balance between cost and benefit for LTC facilities, nursing staff, and residents, and the minimum number of HPRDs by staff type that will improve safety and quality care. Therefore, we proposed 0.55 and 2.45 HPRD for RNs and NAs, respectively, which were

developed using case-mix adjusted data sources, because we believe that proposing lower staffing levels than current State requirements would be insufficient to meet the statutory goals of improving health and safety.

Impact Analysis: The impact of State minimum staffing policies on nurse staffing, and safety and quality care in nursing homes during the recent COVID-19 PHE, can inform policy makers on potential outcomes to Federal minimum staffing standards. The study also provided analyses of the recently revised Massachusetts minimum staffing standards, in the wake of the COVID-19 PHE, making the findings the most timely and relevant of various State-level analyses. The researchers determined that the analysis of the Massachusetts staffing standard would be particularly informative given that the State increased its HPRD to a relatively high level and incorporated a Medicaid payment reduction of 2 percent for noncompliant facilities. As such a quasi-experimental study was conducted to determine the impact of the Massachusetts minimum staffing standards on quality of care and safety in nursing homes.

The Massachusetts nursing home minimum staffing standards requires 3.58 HPRD for total nurse staffing (that is, RN, LPN, and NA), of which 0.508 HPRD was for an RN, and provided for a financial penalty for noncompliance with the total nurse staffing standard. The study period was defined as 2015 Q3 through 2022 Q2. The Massachusetts nursing home minimum staffing policy was effective January 1, 2021. Impact analysis of existing nursing homes ($n=40$) data from the PBJ System data (2015Q3–2022Q2) and Care Compare (quality measure and health inspection survey data) were used. The comparison group selected from the sample of national nursing homes ($n=1,617$) was constructed using a synthetic control approach. Synthetic control is a statistical method for creating a comparison group of nursing homes from a region that did not experience the same health policy intervention, but closely resembles the nursing home staffing level and trend in Massachusetts using weighted estimates. Difference-in-differences regression analyses were conducted by stratified nursing home Medicaid share and staffing level. Difference-in-differences regression is a statistical method for estimating the causal effect of the Massachusetts minimum staffing standards, when compared to a region that did not experience the same policy intervention.

⁶² Akinci, Fevzi, and Diane Krolkowski. "Nurse staffing levels and quality of care in Northeastern Pennsylvania nursing homes." *Applied nursing research: ANR* vol. 18,3 (2005): 130–7. doi:10.1016/j.apnr.2004.08.004.

⁶³ Yang, Bo Kyum et al. "Nurse Staffing and Skill Mix Patterns in Relation to Resident Care Outcomes in US Nursing Homes." *Journal of the American Medical Directors Association* vol. 22,5 (2021): 1081–1087.e1. doi:10.1016/j.jamda.2020.09.009.

⁶⁴ Spilsbury, Karen et al. "The relationship between Nurse staffing and quality of care in nursing homes: a systematic review." *International journal of nursing studies* vol. 48,6 (2011): 732–50. doi:10.1016/j.ijnurstu.2011.02.014.

⁶⁵ Firnhaber, G.C., Roberson, D.W., & Kolasa, K.M. (2020). Nursing staff participation in end-of-life nutrition and hydration decision-making in a nursing home: A qualitative study. *Journal of Advanced Nursing*, 76(11), 305–3068. <https://doi.org/10.1111/jan.14491>.

⁶⁶ Abt Associates. (2022). Nursing Home Staffing Study Comprehensive report. Report prepared for the Centers for Medicare & Medicaid Services. <https://edit.cms.gov/files/document/nursing-home-staffing-study-final-report-appendix-june-2023.pdf>.

These regression models did not find a discernible impact on quality of care nor safety within the time period studied. They did, however, find an increase in total nurse staffing levels among low-staffed nursing homes with a high share of residents with Medicaid in Massachusetts. The observed staffing increase was significant for NAs (average treatment effect on the treated (ATT)=.179, $p=0.03$). The analysis thus demonstrates that nursing homes were able to expand staffing in response to the new requirement, notwithstanding workforce challenges since the pandemic.

One limitation of the analysis was the small number of nursing homes included because the analysis focused on a subset of nursing homes with the strongest incentive to respond to the new policy, that is, those with high Medicaid resident shares (≥ 75 th percentile) and initial staffing levels below the new Massachusetts minimum staffing requirement ($\text{HPRD} \leq 3.58$ for total nurse staffing), resulting in 1,617 out of 15,333 nursing homes nationwide for the control group, and 40 out of 373 nursing homes in Massachusetts. Also, about one third of the nursing homes did not complete health inspection surveys due to the COVID-19 PHE, so there was a substantial amount of missing data for examining the safety outcome. Furthermore, the analysis of quality of care and safety outcomes was limited by the short post-implementation study period of Massachusetts's minimum staffing standards, which does not allow for sufficient time for a complete evaluation of the policy. Additionally, the impact analysis was focused on data from roughly the first year of implementation, which usually involves resource planning and operational changes to meet the new policy standards, and thus may not be representative.

These study results show that there was an increase in NA staffing, which supports the proposed policy to require facilities to meet the minimum staffing standards or otherwise be subject to, civil money penalties and denial of payment for all Medicare and/or Medicaid individuals among other penalties in accordance with 42 CFR 488.406.

(5) Cost and Savings Analysis

The cost analyses were conducted to determine any associated incremental costs that nursing homes would likely experience to meet minimum staffing standards, as well as any Medicare savings. Cost analyses used the 2021 Q2 PBJ System (staffing data), facility-specific information on hourly costs for

RNs, LPN/LVNs, and NAs from *Worksheet S-3, FY 2021 Part V* of the Medicare Cost Report for 14,688 SNFs, and information on resident census that is available from files produced for comparison to evaluate any associated incremental costs. We note that the cost analyses were independent of a facility's case-mix.

Study findings indicate that the staffing costs for increasing RN and NA staffing levels in nursing homes to meet the minimum staffing standards ranges from \$2.2 to \$6.0 billion per year. The minimum estimated cost savings to Medicare, based on savings from the RN staffing requirement, are from the decreased use of acute care services (fewer hospitalizations and emergency department visits) and increased community discharges (defined as a reduction in Medicare-covered SNF days); cost savings ranges from \$187 to \$465 million. The decision to focus on estimated savings for RNs only, was because RN staffing levels were found to have a much stronger and a more consistent positive correlation with hospitalizations and emergency department visits than NAs or LPNs.

These quantitative analyses of savings to Medicare were limited to quality metrics for which there are extant secondary data. However, there are likely additional benefits to quality of care and life that cannot be fully identified through the analysis in the 2022 Nursing Home Staffing Study. Moreover, these analyses do not consider facilities' existing resources, ability to pay for possible staffing levels, or access to trained healthcare professionals.

Overall, the study⁶⁷ was unable to examine the relationship between staffing levels by shift and quality/patient safety because the PBJ System does not include information on staffing by shift. In addition, there was limited information on non-nurse staffing, so the study team was unable to examine minimum staffing standards for non-nurse staff.

c. Listening Sessions

In addition to commissioning the 2022 Nursing Home Staffing Study and issuing the FY 2023 SNF PPS RFI, we also held two listening sessions on June 27, 2022, and August 29, 2022, to provide information on the study and solicit additional input on the study design and approach for establishing minimum staffing standards. The first

listening session was attended by 18 interested parties representing various groups within the LTC community. During this session, this small group discussed several "big picture" questions about minimum staffing standards and provided input on the overall study approach. The second listening session was attended by 668 participants who offered feedback on specific questions that were included on the registration form, such as how to ensure that health equity/health care disparities are addressed when establishing minimum nurse staffing standards and how minimum staffing standards should consider differences in costs for job categories and variations across States.

During the August 2022 listening session,⁶⁸ participants shared their opinions that the current state of staffing standards was not adequate, and there was consensus that minimum staffing standards should be the same across the country. Participants recommended that CMS consider resident characteristics and care needs when developing staffing standards. Participants indicated that the interdisciplinary team and the care provided by non-nursing staff such as physical, occupational, speech therapists, respiratory therapists (especially with pediatric specialty/ventilator units), podiatrists, and psychiatrists also need to be considered. Others also suggested that the inclusion of non-nurse staff to meet staffing standards may positively contribute to aspects of quality of life for residents.

Similar to the suggestions received in the FY 2023 SNF PPS RFI, some participants suggested that CMS create a staff-to-resident ratio minimum standard, which can further support a HPRD staffing standard. Participants also suggested that facilities should report and display staff-to-resident ratios on a daily basis for all shifts. Participants in favor of a staff-to-resident ratio requirement noted that increased transparency will help residents and family members to easily determine if the facility is in compliance with minimum staffing standards.

Lastly, some participants indicated that minimum staffing standards should consider the need for consistent NA qualifications across all 50 States and to allow for more online training to eliminate the backlog of availability for NAs testing and increase the availability of classes near candidates to support staff shortages.

⁶⁷ Abt Associates. (2022). Nursing Home Staffing Study Comprehensive report. Report prepared for the Centers for Medicare & Medicaid Services. <https://edit.cms.gov/files/document/nursing-home-staffing-study-final-report-appendix-june-2023.pdf>.

⁶⁸ <https://www.cms.gov/nursing-homes>.

4. Ongoing CMS Initiatives and Programs Impacting LTC Facilities

In establishing the proposed minimum staffing standards, we also considered ongoing CMS policies, programs, and operations, including Medicaid institutional payment and transparency, the SNF prospective payment system, the SNF Value-based Purchasing Program (SNF VBP), oversight and enforcement, and CMS policies intended to enhance access to Medicaid home and community-based services and promote community-based placements.

a. Medicaid Institutional Payments and Payment Transparency

In this proposed rule we are also proposing a Medicaid Institutional Payment Transparency provision that is intended to promote public payment transparency. Greater transparency will help us assess the extent to which LTC facilities with a large Medicaid population have challenges achieving compliance with minimum staffing standards. State Medicaid Agencies would be required to publicly report the percentage of payments expended for direct care workers and support staff services in Medicaid-participating nursing facilities and Intermediate Care Facilities for Individuals with Intellectual Disabilities (ICF/IID) (see section III. of this proposed rule). We expect that as a result of this transparency requirement, some facilities would likely increase staffing independent of our proposed minimum staffing standards.

b. Medicare Skilled Nursing Facility Prospective Payment System

The Medicare Skilled Nursing Facility Prospective Payment System is a comprehensive per diem rate under Medicare for all costs for providing covered Part A SNF services (that is, routine, ancillary, and capital-related costs). There are over 15,000 Medicare-certified SNFs. The FY 2023 SNF PPS proposed rule published on April 4, 2023 updated Medicare payment policies and rates for SNFs for FY 2024. The FY2023 SNF PPS proposed rule estimated that the aggregate impact of the payment policies in the rule would result in a net increase of 3.7 percent, or approximately \$1.2 billion, in Medicare Part A payments to SNFs in FY 2024. We note that Section 1888(e)(4)(E) of the Act requires the SNF PPS payment rates to be updated annually. These updates take into account a number of factors, including but not limited to, wages, salaries, and other labor-related costs. Specifics

regarding the process to update SNF PPS payment rates are discussed in the rule.⁶⁹

c. Skilled Nursing Facility (SNF) Value-Based Payment (VBP) Program Staffing Measure

In the FY 2023 SNF PPS final rule, we adopted a new Total Nurse Staffing quality measure under the SNF VBP Program, which is used to provide an incentive to LTC facilities for improving quality of care provided to residents.⁷⁰ Performance on the Total Nurse Staffing measure begins in FY 2024, and payment adjustments based on performance on this measure (as well as others) occurs in FY 2026. This is a structural measure that uses auditable electronic data reported to CMS' PBJ system to calculate HPRD for total nurse staffing. Our proposal is not to be duplicative of this existing measure; rather, we expect our proposed minimum staffing standards to be complementary by establishing a consistent and broadly applicable national floor at which residents are at a significantly lower risk of receiving unsafe and low-quality care. At the same time, the Total Nurse Staffing quality measure will drive continued improvement in staffing across LTC facilities.

d. Nursing Home Survey and Enforcement

The LTC minimum staffing standards proposed in this regulation are part of the Federal participation requirements for LTC facilities and these Federal participation requirements are the basis for survey activities and for the minimum health and safety requirements that must be met and maintained to receive payment and remain as a Medicare or Medicaid provider. As such compliance with these requirements will be assessed through CMS' existing survey, certification, and enforcement process.⁷¹ Enforcement actions taken against LTC facilities that are not in compliance with these Federal participation requirements are called

remedies. The agency that conducts on-site surveys cites deficiencies that indicate the specific Federal participation requirements that the facility did not meet. Sections 1819(h) and 1919(h) of the Act, as well as 42 CFR 488.404, 488.406, and 488.408, provide that CMS or the State may impose one or more remedies in addition to, or instead of, termination of the provider agreement when the CMS or the State finds that a facility is out of compliance with the Federal participation requirements. Specifically, enforcement remedies that may be imposed include the following:

- Termination of the provider agreement;
- Temporary management;
- Denial of payment for all Medicare and/or Medicaid individuals by CMS;
- Denial of payment for all new Medicare and/or Medicaid admissions;
- Civil money penalties;
- State monitoring;
- Transfer of residents;
- Transfer of residents with closure of facility;
- Directed plan of correction;
- Directed in-service training; and
- Alternative or additional State remedies approved by CMS.

In general, to select the appropriate enforcement remedy(ies), the scope and severity levels of the deficiencies is assessed. The severity level reflects the impact of the deficiency on resident health and safety and the scope level reflects how many residents were affected by the deficiency. The survey agency determines the scope and severity levels for each deficiency cited at a survey.

As part of these survey and enforcement activities, we currently publish data for all LTC facilities on the Care Compare website, including number of certified beds, an overall Five Star rating, and three individual star ratings in the categories of inspections, staffing, and quality measurement.⁷² In addition, individual performance measures are included on Care Compare. With respect to staffing, this includes the following staffing data: total number of nurse staff HPRD, RN HPRD, LPN/LVN HPRD, and NA HPRD, as well as some additional staffing measures, including weekend hours. These published data are collected through a variety of mechanisms, including during CMS surveys (inspection data), through the reporting

⁶⁹ Medicare Program; Prospective Payment System and Consolidated Billing for Skilled Nursing Facilities; Updates to the Quality Reporting Program and Value-Based Purchasing Program for Federal Fiscal Year 2024. <https://www.federalregister.gov/documents/2023/04/10/2023-07137/medicare-program-prospective-payment-system-and-consolidated-billing-for-skilled-nursing-facilities>.

⁷⁰ <https://www.cms.gov/newsroom/fact-sheets/fiscal-year-fy-2023-skilled-nursing-facility-prospective-payment-system-final-rule-cms-1765-f>.

⁷¹ <https://www.cms.gov/medicare/provider-enrollment-and-certification/surveycertification/enforcement/nursing-home-enforcement>.

⁷² Centers for Medicare & Medicaid Services [Medicare.gov](https://www.medicare.gov). Find and Compare Nursing Homes Providers near you <https://www.medicare.gov/care-compare/?providerType=NursingHome&redirect=true>.

of PBJ System and are also self-reported by LTC facilities to us.

In general, facilities report employing three types of nursing staff: RNs, LPNs/LVNs, and NAs. We have been moving towards more data-driven enforcement, including use of the self-reported PBJ System data to guide monitoring, surveys and enforcement of existing staffing requirements. We continue to recognize the value of assessing the sufficiency of a facility's staffing based on observations of resident care conducted during the onsite survey. For example, while compliance with numeric minimum staffing standards could be assessed using PBJ System data, it is possible that due to a facility's layout, management, and staff assignments, a facility could meet the numeric staffing standards but not provide the sufficient level of staffing needed to protect residents' health and safety. Resident health status and acuity (for example, proportion of residents with cognitive decline or use of ventilators) are also factors in determining adequate staffing. Therefore, when assessing the sufficiency of a facility's staffing it is important to note that any numeric minimum staffing requirement is not a target and facilities must assess the needs of their resident population and make comprehensive staffing decisions based on those needs. The additional requirements proposed in this rule to bolster facility assessments are intended to address this need and guard against any attempts by LTC facilities to treat the minimum staffing standards included here as a ceiling, rather than a floor.

In summary, the benefits and success of minimum staffing standards are heavily dependent on the survey process. Therefore, in establishing numerical minimum staffing standards our goal is to ensure that they are both implementable and enforceable, as determined through both the PBJ System as well as on-site surveys.

e. Medicaid Home and Community-Based Services

We remain committed to a holistic approach to meeting the long-term care needs of Americans and their families. This requires a focus on access to high-quality care in the community while also ensuring the health and safety of those who receive care in LTC facilities. In the proposed April 2023 Ensuring Access to Medicaid Services (Access NPRM) and Medicaid and CHIP Managed Care Access, Finance, and Quality (Managed Care NPRM), we proposed several policies intended to work alongside those included in this

proposed rule. These proposals require that at least 80 percent of Medicaid payments for personal care, homemaker and home health aide services be spent on compensation for the direct care workforce (as opposed to administrative overhead or profit); establish standardized reporting requirements related to health and safety, beneficiary service plans and assessments, access, and quality of care; and promote transparency through public reporting on quality, performance, compliance as well as Medicaid managed care plans' payment rates for direct care workers. Additionally, we remain committed to facilitating transfers from LTC facilities to the community through the continued implementation of the Money Follows the Person program.⁷³

Notably, we believe that the proposed minimum staffing standards will improve quality of care which includes facilitating the transition of care to community based care services; similar to findings that are reported in the 2022 Nursing Home Staffing Study as well as potential Medicare savings.

B. Provisions of the Proposed Regulations

As discussed above, meeting minimum staffing standards may be influenced by and/or affect existing CMS initiatives and programs, and programs within LTC facilities. Given these factors and the broad spectrum of suggestions and inputs discussed, we acknowledge that there are many considerations and potential policy options for establishing minimum staffing standards. Therefore, we propose a comprehensive staffing approach that consists of the three following elements: (1) establishing new minimum nurse staffing standards based on case-mix adjusted staffing; (2) revising the on-site RN requirement; and (3) revising the existing facility assessment requirement. We believe, when taken together, these three elements will establish a consistent and broadly applicable national minimum staffing standards as a floor, while also ensuring that LTC facilities staff beyond the minimum staffing standards as needed, based on their resident population.

While we expect LTC facilities to meet the comprehensive staffing standards, we acknowledge that there may be circumstances related to the nursing workforce that require efforts to both ensure access to care and maintain quality care and safety. Therefore, we

are proposing options for exemptions and a staggered implementation of the proposal's components for meeting the minimum staffing standards. This comprehensive approach aims to strike the appropriate balance between ensuring resident health and safety, while guarding against unintended consequences, and preserving access to care.

Our goal is to protect resident health and safety and ensure that facilities are considering the unique characteristics of their resident population in developing staffing plans, while balancing operational requirements and supporting access to care. Moreover, the comprehensive staffing standards will provide staff with the support they need to safely care for residents.

We believe that the elements of the proposed comprehensive staffing standards discussed in this rule support these goals and align with the key function of the LTC facility participation requirements, which is to establish minimum standards to ensure safety and quality care for all residents.

We also acknowledge the impact that proposed minimum staffing standards will have on the LTC facility industry and recognize the potential for unintended consequences, such as facilities' misinterpretation of the minimum staffing standards. Such misinterpretation could result in inappropriate behaviors, such as choosing to staff only at the minimum RN and NA HPRD requirements, without adequate consideration of facility characteristics and resident acuity and needs; healthcare workforce substitution (hiring for one position by eliminating another); task diversion (assigning non-standard tasks to a position); or gamesmanship around composition of the patient population (avoiding residents with more complex medical needs). Such actions would not result in the improved safety, quality, and person-centered care that we seek in facilities. As such, we are soliciting public comments on the policy proposals outlined below, in particular the feasibility of the proposals, any unintended consequences, and alternatives that we should consider. We will consider all feedback to inform the final policy.

1. Nursing Services (§ 483.35)

a. Sufficient Staff (§ 483.35(a)(1))

In general, LTC facilities report employing three types of nursing staff: RNs, LPN/LVNs, and NAs. RNs are assigned both administrative roles and resident assessment and care planning, which typically results in less hands-on

⁷³ Money Follows the Person | Medicaid, <https://www.medicaid.gov/medicaid/long-term-services-supports/money-follows-person/index.html>.

time with residents and more non-clinical skills (for example, managerial and time management skills). They are able to assess resident health problems and needs, develop and implement care plans, and maintain medical records. LPN/LVNs are entry-level licensed nurses providing basic level care under a RN or physician supervision such as checking blood pressure, changing bandages and dressings, and documenting patient care records. NAs spend the most time providing care to residents by assisting with activities of daily living (for example, feeding, bathing, and dressing). Moreover, roles for NAs may differ from LPN/LVNs depending on the State.

NAs are paid on average \$16.90/hour, whereas RNs and LVN/LPNs are paid an average hourly wage of \$37.11 and \$28.17 in Nursing Care Facilities.⁷⁴ While the work of NAs and other direct care workers, like home health aides and personal care assistants, requires considerable technical and interpersonal skills, these workers historically receive low pay, rarely receive benefits, and experience high injury rates.⁷⁵ Despite the rising demand for services, direct care workers continue to earn poverty-level low wages. Almost one-half of the direct care workforce (45 percent) live below 200 percent of the Federal poverty level and about one-half (47 percent) rely on public assistance. Recent research by the U.S. Assistant Secretary for Planning and Evaluation finds that wages for direct care workers, including NAs, lag behind workers in other industries with similar entry-level requirements, exacerbating recruitment and retention challenges. According to its findings, average hourly wages also vary considerably State to State—as low as \$10.90 for NAs in Louisiana to as high as \$18.66 in Alaska.

Current regulations at § 483.35(a)(1)(i) and (ii) require facilities to have sufficient numbers of licensed nurses and other nursing personnel, including but not limited to NAs, available 24 hours a day to provide nursing care to all residents in accordance with the resident care plans.⁷⁶ In the 2016 LTC

final rule mentioned previously,⁷⁷ CMS described the complexity of establishing minimum staffing standards at that time given that the PBJ System reporting program had only been recently implemented. Therefore, we did not have adequate information in terms of facility-level staffing data that would be needed to establish minimum staffing standards. We further stated that once a sufficient amount of data was collected and analyzed, we could re-visit the establishment of minimum staffing standards in LTC facilities. As of calendar year 2022, we have access to about 6 years of self-reported data from the PBJ System which are sufficient to examine the staffing issues in LTC facilities that still persist and were exacerbated by the COVID-19 PHE.

According to CMS survey and enforcement data, over 1,000 facilities were cited for insufficient staffing in 2022 and residents, family, ombudsmen, researchers, and others continue to report to CMS that understaffing negatively affects care. There is also considerable variation in State staffing requirements. As previously stated, a review of State staffing requirements indicates that 38 States and the District of Columbia currently have minimum staffing standards in LTC facilities, but these standards differ across States by staff types, hours and measurement across States, and more so during the COVID-19 PHE.⁷⁸ The proposed RN requirement of 0.55 HPRD is higher than every State, and only lower than the District of Columbia. The proposed NA requirement of 2.45 HPRD is higher than all States and the District of Columbia, based on data from September 2022.

For example, only 10 States out of the 38 States have minimum HPRD standards for NAs ranging from 1.04 to 2.44 (see Table 2).

TABLE 2—HPRD REQUIREMENT FOR NAS BY STATE

State	CNAs (HPRD)
1. California	2.4
2. Delaware	1.6
3. Florida ‡	2.0
4. Montana	1.2
5. New Jersey	1.04
6. New York	2.2

⁷⁷ Medicare and Medicaid Programs; Reform of Requirements for Long-Term Care Facilities. (81 FR 68688) <https://www.federalregister.gov/documents/2016/10/04/2016-23503/medicare-and-medicare-programs-reform-of-requirements-for-long-term-care-facilities>.

⁷⁸ State Policies Related to Nursing Facility (NF) Staffing <https://www.macpac.gov/wp-content/uploads/2022/03/State-Policies-Related-to-Nursing-Facility-Staffing.xlsx>.

TABLE 2—HPRD REQUIREMENT FOR NAS BY STATE—Continued

State	CNAs (HPRD)
7. Oregon	2.16
8. Rhode Island	2.44
9. South Carolina	1.63
10. Vermont	2.0

Notes: CNAs= certified nursing assistants or nursing assistants; HPRD= hours per resident day.

‡ FL revised CNA HPRD from 2.45 to 2.0 on 4/2022.

Source: RTI International, 2021, Review of State Policies Related to Nursing Facility Staffing.

Some States have implemented a total hour per resident day (HPRD) model, with some including licensed nurses in this calculation, whereas others exclude LPN/LVNs but include RNs, DONs, and NAs only. For example, the District of Columbia requires a minimum daily average of 4.1 hours of direct nursing care per resident per day (with an opportunity to adjust the requirements above or below this level, as determined by the Director of the Department of Health), an RN on site 24 hours a day, 7 days a week, plus additional nursing and medical staffing requirements.⁷⁹ Some States implemented a ratio of numbers of full-time equivalent NAs per resident. For example, California requires 3.5 HPRD for total nurse staffing with at least 0.24 of those hours provided by RNs, and 2.4 HPRD for NAs, and no HPRD required for LPN/LVNs. Massachusetts requires 3.58 HPRD for total nurse staffing with at least 0.508 of those hours provided by a RN.⁸⁰ Arkansas requires at least 3.36 average HPRD for nurse and non-nurse staff each month to include licensed nurses, NAs, medication assistants, physicians, physician assistants, licensed physical or occupational therapists or licensed therapy assistants, registered respiratory therapists, licensed speech language pathologists, infection preventionists, and other healthcare professionals licensed or certified in the State, plus requirements for minimum numbers of licensed nurses per residents per shift. There is also limited evidence on how these different staffing standards were developed and their impact.

⁷⁹ https://doh.dc.gov/sites/default/files/dc/sites/doh/publication/attachments/Nursing_Facility_Regulations_Health_Care_Facilities_Improvement_2012.pdf.

⁸⁰ https://theconsumervoice.org/uploads/files/issues/CV_StaffingReport.pdf.

⁷⁴ *Nursing and Residential Care Facilities—May 2022 OEWS Industry-Specific Occupational Employment and Wage Estimates* (bls.gov).

⁷⁵ *Wages of Direct Care Workers Lower than Other Entry Level Jobs in most States*, Assistant Secretary for Planning and Evaluation, April, 2023 <https://aspe.hhs.gov/reports/dcw-wages>.

⁷⁶ 42 CFR 483.35 <https://www.whitehouse.gov/briefing-room/statements-releases/2022/02/28/fact-sheet-protecting-seniors-and-people-with-disabilities-by-improving-safety-and-quality-of-care-in-the-nations-nursing-homes/>.

The 2022 Nursing Home Staffing Study⁸¹ included an analysis of PBJ System data for the fourth quarter of 2019 through the first quarter of 2022. The 2022 Nursing Home Staffing Study, as discussed previously, provided CMS with findings to inform the proposal for minimum staffing standards, and discussed trade-offs associated with balancing cost and feasibility with implications for acceptable quality care and safety, especially among the lowest performing facilities (that is, at or below the 25th percentile for total safety and quality measure scores) that are at the most risk for providing unsafe care.

After considering all of the available evidence and extensive comments provided, we are proposing revisions to the Nursing Services regulations at § 483.35 to establish national, quantitative minimum staffing standards to ensure all facilities provide at least the same baseline level of high-quality and safe care to residents across all participating LTC facilities. We propose to revise § 483.35(a)(1)(i) and (ii) to further define “sufficient numbers” by establishing a numerical minimum level for HPRD for RNs and NAs. We also propose to revise § 483.5 to include the definition of “hours per resident day” (HPRD), that is, staffing hours per resident per day is the total number of hours worked by each type of staff divided by the total number of residents as calculated by CMS.⁸² Specifically, at § 483.35(a)(1)(i) we propose individual nurse staffing type standards for RNs and NAs. We propose to require facilities to have minimum staffing standards of 0.55 HPRD of RNs and 2.45 HPRD of NAs as well as to maintain sufficient additional nursing personnel, including but not limited to LPN/LVNs, and other clinical and non-clinical staff, to ensure safe and quality care, based on the proposed facility assessment requirements at § 483.71. CMS is also seeking comments on a minimum total nurse staffing standard of 3.48 HPRD discussed later in the rule.

We are not proposing minimum nurse staffing standards that include HPRD for licensed nurses (that is, RNs plus LPN/LVNs) nor for total nurse staffing (that is, RNs, LPN/LVNs, and NAs). This proposed policy is based on the 2022 Nursing Home staffing study findings and other literature evidence demonstrating that RNs and NAs have a larger effect on quality than LPN/LVNs.

In addition, literature and statistical evidence suggests that improved clinical outcomes are associated with increasing the HPRD rates of RNs and NAs⁸³ especially among nursing homes that have a high reliance on Medicaid.⁸⁴ Moreover, when LPN/LVNs work with higher numbers of HPRD for RNs and NAs (that is, total nurse staff) it appears to reduce delayed or omitted care and increase gross cost savings to Medicare.⁸⁵ We believe that establishing national, numerical standards of direct care hours will improve safety and quality in many LTC facilities. By creating a consistent Federal floor for staffing expectations, we will better define the minimum number of care hours residents should receive to protect health and safety, while also facilitating strengthened oversight and enforcement.

As an example, when establishing the proposed HPRD level of 0.55 for RNs and 2.45 for NAs, we note that the minimum number of RN hours (that is 0.55 HPRD) provided in a facility that has 100 residents and runs an 8-hour shift per 24 hours, would require a total of 55 RN hours per 24 hours.⁸⁶ In other words, at least two RNs on staff each 8-hour shift, plus a third RN for one shift, would be necessary in this scenario although no per shift minimum is being established in this rule. Similarly, the minimum number of NA hours (that is 2.45 HPRD) provided in a facility that has 100 residents and runs an 8-hour shift per 24 hours will require at least a total of 245 NA hours per 24 hours.⁸⁷ In other words, at least 10 NAs on staff each 8-hour shift, plus a third NA for one shift would be necessary in this scenario although no per shift minimum is being established in this rule.

These proposed levels for hours of care would establish the minimum nurse staffing levels needed to provide safe and high-quality nursing services to each resident per day. We underscore

that these standards reflect only the absolute minimum floor adjusting for the average acuity across all LTC facilities, and the required hours of nursing care may be greater but never lower than the proposed minimum standards, if the acuity needs of residents in a facility requires a higher level of care. Additionally, the proposed staffing levels require all facilities to meet at least this minimum floor, even if the facility has below average acuity, given that resident population can shift more rapidly than staffing plans; most facilities have either an average acuity or higher of resident population; and as noted above, the evidence can also support a higher range of staffing thresholds.

Notably, we are proposing to specify HPRD for RNs and NAs in the minimum staffing requirement at § 483.35(a) and are not proposing a total nurse staffing level under which facilities have the flexibility to decide between types of licensed nurses to meet the minimum requirement. We have taken this approach given the evidence that shows a strong positive association between RN staffing levels and safety and quality, as well as NA staffing levels at higher HPRDs. Literature evidence also indicates that the increased presence of RNs in nursing facilities would help address several issues.

First, research evidence suggests that greater RN presence has been associated with higher quality of care and fewer deficiencies. Second, it has been reported in the literature that where standards provide flexibility as between types of licensed nurses (that is, do not specify RN hours), LPN/LVNs may find themselves practicing outside of their scope of practice partly because there are not enough RNs providing direct patient care and supervision of LPN/LVNs. The specificity of this approach would increase the number of hours per day that a LTC facility must have RNs in the facility and would alleviate concerns about LPN/LVNs engaging in activities outside their scope of practice in the face of resident need during times when no RN is on site (80 FR 42168, 42200). Moreover, to prevent a high rate of unusual patient safety events, the National Academy of Medicine (NAM) (formerly the Institute of Medicine (IOM)) suggests having adequate staffing levels, specifically NAs, who provide most of the care to nursing home residents.⁸⁸ In addition, our proposal,

⁸³ Abt Associates. (2022). Nursing Home Staffing Study Comprehensive report. Report prepared for the Centers for Medicare & Medicaid Services. <https://edit.cms.gov/files/document/nursing-home-staffing-study-final-report-appendix-june-2023.pdf>.

⁸⁴ Bowblis J.R. (2011). Staffing ratios and quality: an analysis of minimum direct care staffing requirements for nursing homes. *Health services research*, 46(5), 1495–1516. <https://doi.org/10.1111/j.1475-6773.2011.01274.x>.

⁸⁵ Abt Associates. (2022). Nursing Home Staffing Study Comprehensive report. Report prepared for the Centers for Medicare & Medicaid Services. <https://edit.cms.gov/files/document/nursing-home-staffing-study-final-report-appendix-june-2023.pdf>.

⁸⁶ 100 residents × 0.55HPRD = 55 RN hours for 24 hours; or 18 RN hours/8-hour shift; that is ~2 RNs.

⁸⁷ 100 residents × 2.45HPRD = 245 NA hours for 24 hours; or 81 NA hours/8-hour shift; that is ~10 NAs.

⁸¹ Abt Associates. (2022). Nursing Home Staffing Study Comprehensive report. Report prepared for the Centers for Medicare and Medicaid Services. <https://edit.cms.gov/files/document/nursing-home-staffing-study-final-report-appendix-june-2023.pdf>.

⁸² <https://data.cms.gov/provider-data/dataset/4pq5-n9py>.

⁸⁸ Institute of Medicine (US) Committee on the Work Environment for Nurses and Patient Safety. *Keeping Patients Safe: Transforming the Work Environment of Nurses*. Edited by Ann Page, National Academies Press (US), 2004. doi:10.17226/10851.

which focuses on sufficient numbers of nursing staff, does not contemplate staffing levels for non-nursing staffing because nursing staff are most critical to ensuring minimum standards of care, and there is insufficient information on non-nurse staffing levels in the PBJ System and other available data sources that limits our efforts to examine staffing requirements for non-nurse staff at this time. We solicit comment on the need to allow for substitution, such as substituting LPN/LVNs for NAs, in extraordinary cases and specifically what extreme circumstances would appropriately allow for such substitution.

As noted, based on the findings reported in the 2022 Nursing Home Staffing Study, information gathered through the FY2023 SNF PPS RFI, listening sessions, assessment of the PBJ System data, and review of the literature evidence, we are proposing individual minimum staffing levels at 0.55 HPRD for RNs and 2.45 HPRD for NAs. In establishing this proposal, we considered the context of substantial cost that the proposed policy may impose on LTC facilities, especially those with limited resources that may face difficult decisions in terms of how to allocate funding and resources (see Regulatory Impact Section for more detail). Likewise, the evidence from the 2022 Nursing Home Staffing Study supports the proposed minimum staffing level for RNs and NAs for improving safety and leading to higher quality care. As such, we are proposing minimum nurse staffing standards for these two types of nursing staff that we believe are reasonable and creates meaningful, positive impact on resident quality and safety. These standards will especially help ensure all facilities reach acceptable levels of safety and quality care, working in tandem with CMS' other quality improvement programs that focus on raising performance beyond minimum requirements.

The proposed minimum nurse staffing standards would create broadly applicable minimum standards at which all residents across all LTC facilities would be at a significantly lower risk of receiving unsafe and low-quality care. LTC facilities would be required to staff above these minimum adjusted baseline levels, as appropriate, to address the specific needs of their unique resident population. This additional staffing should be based at the facility level using the facility assessment and an examination of resident acuity levels.

LTC facilities are also responsible for compliance with other requirements for participation, including but not limited

to § 483.24, which requires that each resident must receive and the facility must provide the necessary care and services to attain or maintain the highest practicable physical, mental, and psychosocial well-being, consistent with the resident's comprehensive assessment and plan of care. Therefore, we propose to add a new § 483.35(a)(1)(v) to reinforce this standard. Specifically, at § 483.35(a)(1)(v), we propose to specify that compliance with minimum HPRD for RN and NA should not be construed as approval for a facility to have fewer nursing and non-nursing staff than the number of staff with the appropriate competencies and skills sets necessary to assure resident safety, and to attain or maintain the highest practicable physical, mental, and psychosocial well-being of each resident, as determined by resident assessments, acuity and diagnoses of the facility's resident population in accordance with the facility assessment required at current § 483.70(e), which we propose to be redesignate as new § 483.71.

The acuity and characteristics of residents in LTC facilities has continued to evolve and change over the years. For example, there are more residents with a psychiatric diagnosis with reports showing that the proportion of residents with schizophrenia increased from 6.5 percent in 2000 to 12.4 percent in 2017.⁸⁹ There has also been an increase in the percentage of facilities with an Alzheimer's unit and more residents appear to need assistance with activities of daily living. For example, it was reported that on average 96 percent of residents at the facility level needed assistance with bathing in 2015, compared to the national average of 89 percent of residents in 1985.⁹⁰ Also the percentage of residents with bladder incontinence has also increased over the years from 49.3 to 62.1 percent.³

Furthermore, there appears to be an increase in the proportion of younger residents, under 65 years of age, in part due to severe mental illness and substance use disorders, who have different needs from the traditional

nursing home population.⁹¹ Given the variation in resident acuity and complexity of care required for a facility's unique resident population, facilities must make thoughtful, informed staffing plans and decisions that are focused on meeting resident needs, including maintaining or improving resident safety and quality of life, which will often result in the need for a facility to staff above the minimum nurse staffing requirement. Based on the needs of its resident population, an individual facility may need to maintain levels of HPRD for RN, NA and other staffing that surpasses the proposed minimum nurse staffing HPRD.

This need for increased staff would be evidenced by the facility assessment (§ 483.70(e)) and resident assessments (§ 483.20) which would require facilities to make staffing and care planning decisions that account for resident acuity, physical/cognitive abilities, conditions, diagnoses, etc. . . . Compliance with the numerical minimum staffing requirement is necessary but not necessarily sufficient to meet staffing needs for every facility. Later in this proposed rule, we discuss an additional element of this comprehensive proposal, revising the facility assessment requirement at § 483.70(e) which we believe would help avoid the unintended consequence of facilities inappropriately staffing at the minimum staffing requirement.

We note that, as discussed previously, while the 0.55 and 2.45 HPRD standards were developed using case-mix adjusted data sources, the standards themselves will be implemented and enforced independent of a facility's case-mix. In other words, facilities must meet the 0.55 RN and 2.45 NA HPRD standards, regardless of the individual facility's patient case-mix. Based on the October 2021 Care Compare data, we estimate that approximately 6,094 facilities are staffed below a level of 0.55 for RNs, and approximately 9,998 are currently staffed below a level of 2.45 for NAs out of an estimated 14,688 total facilities with complete information. These estimates do not reflect proposed exemptions discussed below. Similarly, we recognize that there are facilities currently staffing at levels greater than or equal to 0.55 RN HPRD (n=8,594) and 2.45 NA HPRD (n=4,690) who would not be directly impacted by this proposed policy at this time. However, staffing should be assessed on an ongoing basis and we emphasize that

⁸⁹ M. Barton Laws, Aly Beeman, Sylvia Haigh, Ira B. Wilson, Renée R. Shield, Prevalence of Serious Mental Illness and Under 65 Population in Nursing Homes Continues to Grow. *Journal of the American Medical Directors Association*, Volume 23, Issue 7, 2022, Pages 1262–1263, <https://doi.org/10.1016/j.jamda.2021.10.020>.

⁹⁰ Fashaw, Shekinah A et al. "Thirty-Year Trends in Nursing Home Composition and Quality Since the Passage of the Omnibus Reconciliation Act." *Journal of the American Medical Directors Association* vol. 21.2 (2020): 233–239. doi:10.1016/j.jamda.2019.07.004.

⁹¹ Laws, M Barton et al. "Changes in Nursing Home Populations Challenge Practice and Policy." *Policy, politics & nursing practice* vol. 23.4 (2022): 238–248. doi:10.1177/15271544221118315.

the facility must provide adequate nursing care to meet the needs of each resident.

Typical characteristics of LTC facilities that may need to staff up to meet this minimum requirement, based on having current staffing, below the proposed levels are:

- For-profit facilities (compared to government and non-profit facilities).
- Larger facilities.
- Freestanding LTC facilities (relative to hospital-based).
- Facilities that are part of a Continuing Care Retirement Community.
- Facilities with higher shares of Medicaid residents.
- Facilities that are Special Focus Facilities (SFF) or SFF candidates.
- Rural facilities.

We note that the existing statutory waiver for Medicaid NFs, authorized by section 1919(b)(4)(C)(ii) of the Act and implemented at § 483.35(e) for a State to waive the requirements of § 483.35(b) to provide licensed nurses on a 24-hour basis would still be in place for NFs to pursue through the current waiver process. The statutory waiver is discussed further under Section II.B. 3. “Hardship Exemption from the Minimum Hours Per Resident Day Requirements for RNs and NAs.” In addition, we propose to add new paragraphs (a)(1)(iii) and (iv) to existing § 483.35 to specify that facilities may be exempted from the minimum HPRD requirement for RNs and NAs using separate criteria, and to indicate the period of time that will be assessed to determine compliance.

At new § 483.35(a)(1)(iii), we propose facilities that are found non-compliant with the HPRD requirement for RNs and NAs and meet certain eligibility criteria may be exempted from the 0.55 HPRD for RNs and/or 2.45 HPRD for NAs requirements. The details of this exemption framework and the specific eligibility criteria are discussed further in section II.B.3. “Hardship Exemption from the Minimum Hours Per Resident Day Requirements for RNs and NAs.” of this rule. At new § 483.35(a)(1)(iv), we propose that determinations of compliance with minimum HPRD requirements for RNs and NAs will be made based on the most recent available quarter of PBJ System data submitted in accordance with the requirements at existing § 483.70(p) (“Mandatory Submission of Staffing Information Based on Payroll Data in a Uniform Format”).

We solicit comments on the timeframe used to determine compliance with the minimum HPRD, specifically if the lookback period

should be longer, for example 1 year to cover a full certification period, or some other timeframe to ensure the most reliable and realistic assessment of staffing data. We also invite public comments on the following proposals discussed in this section. As highlighted throughout the discussion, we acknowledge multiple avenues for establishing a minimum nurse staffing requirement. Based on the proposed policy presented in this rule, we are seeking feedback regarding whether or not alternative policy options are necessary to meet and maintain acceptable quality and safety within LTC facilities, while balancing a facility’s ability to comply and ensure access to care.

In developing the proposed rule, we considered varying staffing models that are available and different approaches we could have adopted for establishing minimum nurse staffing standards. For example, we could have adopted multiple different types of combinations of staffing requirements, such as a four-part requirement (inclusive of a total nurse staffing ratio, RNs, LPN/LVNs, and NAs) or a three-part requirement (inclusive of a total nursing staffing ratio, RNs, NAs or separate standards for RNs, LPN/LVNs, and NAs). We also considered that LTC facilities differed across States in their reliance on LPN/LVNs, which was one of the reasons that we did not set a minimum requirement for LPN/LVNs, in addition to available evidence on LPN/LVN associations with safety and high—quality care.

Alternatively, we could have proposed staffing requirements for professionals such as social workers, therapists, feeding assistants and other non—nurse staff in the minimum staffing requirement. However, the HPRD reported in PBJ System data for non-nurse staff were insufficient for use in establishing minimum staffing requirements at this time.

We propose to use HPRD that LTC facilities self-report to CMS and currently reported and auditable in the CMS’ PBJ System. However, we recognize that staffing levels can be measured in at least 19 different ways with HPRD being the most frequently used.⁹² This includes measuring staffing levels as either full time equivalent per resident, full time equivalent per 100 beds, minutes per resident day, or nursing staff to resident ratios. Alternative minimum staffing policy

options could also focus on the need to increase or decrease the number of HPRD or FTEs by nurse staff and/or type or on specifying the number by shift (including day, evening, night, or weekends or over a 24-hour period).

We are soliciting comments on establishing a total nurse staffing standard such as 3.48 HPRD among other alternatives, in place of a requirement only for RNs and NAs, or in addition to a requirement for RNs and NAs. For example, we considered an alternative 3.48 HPRD for the total nurse staffing standard—inclusive of the 0.55 HPRD RN and 2.45 HPRD NA minimum standards—based on the evidence from the 2022 Nursing Home Staffing Study, in addition to other factors discussed throughout the proposed rule. We considered 0.55 HPRD for RNs and 2.45 HPRD for NAs as a part of this alternative total nurse staffing standard based on the evidence from the 2022 Nursing Home Staffing Study and other inputs; 0.55 HPRD for RN and 2.45 HPRD for NA staffing were found to be positively associated with safety and quality. Furthermore, NAs spend the most time providing care to residents by assisting with activities of daily living (for example, feeding, bathing, and dressing). Including an overarching minimum total staffing standard, such as 3.48 HPRD, could enable LTC facilities flexibility on staffing while protecting residents from preventable negative outcomes and would discourage facilities that currently meet the individual RN and NA minimums from decreasing total staffing. We seek comments on the necessity of a total staffing standard and whether a total staffing standard should be adopted alongside individual standards. We specifically seek comment on a standard of 3.48 HPRD among other alternatives.

To maximize the usefulness of the feedback from interested parties on alternative policy options, we emphasize that the recommended policy must support and promote acceptable quality and safety in LTC facilities as the intended goal. We seek comments on the effectiveness of a minimum staffing standard in maintaining quality and safety and ways to minimize administrative burden, both for LTC facilities and for CMS in maintaining and enforcing such a standard and enhance compliance among LTC facilities through the use of automated data collection techniques or other forms of information technology.

We encourage commenters to submit evidence and data to support their recommendations to the extent possible. All comments will be reviewed and analyzed, including consideration for

⁹² Clemes, S., Wodchis, W., McGilton, K., McGrail, K., & McMaho, M. (2021). The relationship between quality and staffing in long-term care: A systematic review of the literature 2008–2020. *International Journal of Nursing Studies*, 122, <https://doi.org/10.1016/j.ijnurstu.2021.104036>.

potential future rulemaking. We welcome comments on the following questions:

- What are the benefits and trade-offs associated with a two-part minimum nurse staffing standard as proposed (inclusive of RNs and NAs) relative to a three-part standard (inclusive of a 3.48 HPRD for total nurse staffing, RNs, and NAs) or a four-part standard (inclusive of a total nurse staffing ratio, RNs, LPNs/LVNs, and NAs)?

- What evidence did States rely on when they adopted their specific minimum nurse staffing standards, both with respect to HPRD and the inclusion or exclusion of certain nursing staff, and what is the rate of compliance?

- Whether we should consider a case-mix adjusted staffing HPRD for each facility to assess compliance with the minimum staffing standards? A case-mix adjusted staffing HPRD would adjust the minimum staffing levels based on the health status of the residents in each facility (known as “case-mix adjustment”). Specifically, the case-mix adjustment methodology aggregates data from each resident’s assessment (the Minimum Data Set (MDS)) to identify the general level of acuity of each facility’s residents. The level of acuity is then combined with the facility’s self-reported (that is, unadjusted) staffing information to calculate the level of staff the facility has that is equivalent to other facilities.

If we were to adjust the minimum staffing levels based on the health status of the residents in each facility to ensure that staffing levels are adequate to meet the unique needs of the residents in each facility—

- What steps can CMS take to support LTC facilities in predicting what their case-mix adjusted staff might be and hire in expectation of that adjusted staffing level? What resources will facilities need to proactively calculate their existing HPRD for nursing staff, and what may be needed?

- What alternative policies or strategies should we consider to ensure that we enhance compliance, safeguard resident access to care, and minimize provider burden? Are there are other alternative policy strategies we should consider?

b. Registered Nurse (§ 483.35(b)(1))

The existing LTC facility staffing regulations require an RN to be on site 8 consecutive hours a day for 7 days a week (§ 483.35(b)(1)).⁹³ This

requirement serves as a minimum to protect the health and safety of LTC facility residents. In other words, an RN is required to be onsite for a total of 8 consecutive hours out of 24 hours a day. The LTC facility may decide to allocate all 8 consecutive hours of RN time to one day shift or an evening shift for a 24-hour day, similarly to the HPRD proposed for RNs.

However, to prevent avoidable patient safety events, some organizations have recommended higher recommendations to each RN staffing levels. For example, in 2022, the National Academies of Science, Engineering, and Medicine (NASEM) published a report that recommended direct-care RN coverage 24 hours a day, 7 days a week.⁹⁴ Like NASEM, we are concerned that even with minimum HPRD standards, these residents are at risk for preventable safety events when there is no RN on site, particularly during evenings, nights, weekends, and holidays. Therefore, to avoid placing LTC facility residents at risk of preventable safety events due to the absence of an RN, we are proposing to revise § 483.35(b)(1) to require LTC facilities to have an RN onsite 24 hours a day, 7 days a week.

LTC facilities provide care for residents with increasing medically complex and acute health conditions that require substantial resources and care. This care is provided or supervised by an RN. In the FY 2016 final rule, we indicated that CMS was proposing changes to the LTC facility participation requirements to ensure that LTC facilities are providing quality and safe care to medically complex residents among others (81 FR 68688). We noted that not only has the acuity of the resident population generally increased, but there has also been a dramatic increase in the number of residents recovering from an acute episode of major surgery, injury, or illness (sub-acute resident population).

Medicare payment policy has also contributed to higher acuity levels in LTC facilities. After Medicare implemented the prospective payment system for hospitals in 1983, there were shorter hospital stays for Medicare beneficiaries and increased funding for post-acute stays in LTC facilities (80 FR 42168, 42174–42175). This payment policy resulted in a growing sub-acute resident population in LTC facilities that would have previously experienced longer hospital stays. Also, with the

increase in alternatives to LTC facilities, such as assisted-living facilities and home care, LTC facilities are caring for more dependent residents who require more complex basic medical care and rehabilitative services. In addition, LTC facilities are caring for a significant number of residents with dementia, depression, or other behavioral health issues. LTC facilities today have even been referred to as “mini-hospitals.”⁹⁵

While RNs and LPNs/LVNs appear to provide some similar nursing services, such as administering medications, there are crucial differences. Compared to LPNs and LVNs, RNs’ scope of practice is broader and they receive more education.⁹⁶ Most importantly, RNs practice independently and are qualified to conduct clinical nursing assessments, whereas LPNs and LVNs require an RN or a physician’s supervision. This is a critical feature in the RN scope of practice given the higher acuity of today’s LTC facility resident population and the need to properly clinically assess residents to ensure they are receiving the appropriate care. Also, it has been reported in the literature that LPN/LVNs may find themselves practicing outside their scope of practice when there is not sufficient RN staffing in a facility to provide direct or supervised resident care (80 FR 42168, 42200). Thus, we are also proposing that the RN be available to provide direct resident care around the clock.

For several decades, studies and gray literature materials other than traditional research publications, such as opinion pieces, advocacy materials, and non-statistically rigorous research published by government agencies have recommended an RN onsite 24–7 in LTC facilities for similar reasons. As noted previously in this proposed rule, the 2022 NASEM report, recommended that LTC facilities have 24 hours a day, 7 days a week RN onsite coverage. NASEM noted that most LTC facilities provide care for both short-term residents who require rehabilitation or subacute care and long-term care for residents. While the acuity of short-term residents would vary greatly depending upon their reason for admission and condition, NASEM noted that the long-term care residents typically have multiple chronic conditions that require professional nursing surveillance to

⁹⁵ Three challenges of long-term care (LTC) nursing. Health. Accessed at <https://www.wolterskluwer.com/en/expert-insights/three-challenges-of-longterm-care-ltc-nursing>. Published on May 5, 2015. Accessed on February 13, 2023.

⁹⁶ Jividen, S. RN vs. LPN. Nurse.org. Accessed at <https://nurse.org/resources/rn-vs-lpn/>. Published on July 15, 2021. Accessed on February 13, 2023.

⁹³ 42 CFR 483.35, <https://www.whitehouse.gov/briefing-room/statements-releases/2022/02/28/fact-sheet-protecting-seniors-and-people-with-disabilities-by-improving-safety-and-quality-of-care-in-the-nations-nursing-homes/>.

⁹⁴ National Academies of Sciences, Engineering, and Medicine. 2022. *The National Imperative to Improve Nursing Home Quality: Honoring Our Commitment to Residents, Families, and Staff*. Washington, DC: The National Academies Press. <https://doi.org/10.17226/26526>.

monitor the residents for changes that might require hospitalization or potentially be life-threatening.⁹⁷ As noted previously in this rule, it is the RN that has the education, training, and qualifications to conduct clinical nursing assessments. The report also suggested that there be additional RN coverage when needed and that the DON not be counted towards this requirement.

In the 2016 LTC facility final rule,⁹⁸ we noted that several commenters, including the Center for Medicare Advocacy and the California Advocates for Nursing Home Reform, recommended that LTC facilities have 24-hours RN onsite coverage. These commenters argued that 24-hours RN coverage was necessary due to the increased acuity in residents and that expert nursing skill is needed to “anticipate, identify and respond to changes in [a resident’s] condition,” as well as for the residents to have appropriate rehabilitation services and the best chance for being discharged home in a safe and timely manner (80 FR 68754). Other commenters noted that RN staffing was essential for safe and effective resident care.⁹⁹ While we agreed with the commenters on the importance of staffing, and noted that due to their education and licensure, RNs possess the skills that are “essential for timely assessment, intervention and treatment,”¹⁰⁰ we did not establish a minimum nursing staff standard at that time for the reasons noted in the 2016 final regulation. Instead, at § 483.35, we finalized an approach that required the LTC facility to have sufficient nursing staff to assure safety and well-being of each resident as determined by resident assessments and individual plans of care and considering the number and acuity of diagnoses of the facility’s resident population in accordance with the facility assessment required at § 483.70(e). Among other reasons, we did not propose a 24-hour RN onsite requirement due to lack of sufficient data including PBJ System data. As discussed previously in this proposed rule, we did not yet have the data from the PBJ System or another reliable source upon which to base a minimum staffing requirement. We now also have the Abt study discussed above that demonstrated the importance of RNs to the quality-of-care residents receive. Others, including professional nursing

organizations, also contended that the requirements should be focused on resident acuity and the competencies and skill sets of the nursing staff than a specific numerical requirement for categories of staff (80 FR 42168, 42200 and 42201). We were also concerned that some LTC facilities, especially those in rural and underserved areas, might find complying with such a requirement especially challenging (81 FR 68694, 68752, 68755).

We also heard these same concerns reiterated in the FY 2023 SNF PPS RFI comments and the interested parties listening sessions discussed previously. These commenters noted that RNs, by the virtue of their education and training, have diagnostic and assessment skills that other types of nurse staff do not. They noted that LTC facilities have populations with the highest needs and complex medical issues and the availability of RNs for resident assessments is necessary and could prevent avoidable resident hospitalizations. Based on comments received in the FY 2023 SNF PPS RFI, NASEM’s recommendations, and other gray and peer-reviewed literature, we propose that all LTC facilities must have an RN onsite 24 hours a day, 7 days a week at § 483.35(b)(1).

An existing statutory waiver for Medicare SNFs, set out at section 1819(b)(4)(C)(ii) of the Act and implemented at § 483.35(f), permits the Secretary to waive the requirements of § 483.35(b) to provide the services of a RN for more than 40 hours a week, including the director of nursing. This waiver would still be in place for SNFs to pursue through the current waiver process. Facilities would also use this process to pursue a waiver of the 24 hours a day, 7 days a week requirement. However, we discuss certain criteria that may exempt a LTC facility (SNF or NF) from meeting the proposed HPRD levels for RNs and NAs specifically established in § 483.35(a)(1)(i) and (ii) in section III.B.4 of this rule. We welcome comments regarding our proposed requirements for each LTC facility to have an RN on site 24 hours a day, 7 days a week that is available for direct resident care.

In addition to our proposed 24-hour, 7 days a week requirement for an RN, we continue to maintain a separate requirement for the DON. All LTC facilities must designate an RN to serve as the DON on a full-time basis (§ 483.35(b)(2)). The current rule stipulates that the DON can serve as a charge nurse only if the facility has an average daily occupancy of 60 or fewer residents (§ 483.35(b)(3)). Since the DON must be an RN, the DON is

included in the proposed nurse minimum staffing requirements as an RN. All RNs with administrative duties, including the DON, should be available for direct resident care when needed. However, the DON, as well as other nurses with administrative duties, would probably have limited time to devote to direct resident care. We are concerned that for some LTC facilities having the DON as the only RN on site might be insufficient to provide safe and quality care to residents. This concern was also expressed in the NASEM 2022 publication discussed previously, in which the NASEM recommended that the DON not be counted in the requirement for an RN 24 hours, 7 days a week.¹⁰¹ All comments regarding these questions will be reviewed and analyzed, including consideration for potential future rulemaking.

We welcome comments on the following questions:

- Does your facility, or one you are aware of, have an RN onsite 24 hours a day, 7 days a week? If not, how does the facility ensure that staff with the appropriate skill sets and competencies are available to assess and provide care as needed?
- If a requirement for a 24 hour, 7 day a week onsite RN who is available to provide direct resident care does not seem feasible, could a requirement more feasibly be imposed for a RN to be “available” for a certain number of hours during a 24 hour period to assess and provide necessary care or consultation provide safe care for residents? If so, under what circumstances and using what definition of “available”?
- Should the DON be counted towards the 24/7 RN requirement or should the DON only count in particular circumstances or with certain guardrails? Please explain why or why not.
- Are there alternative policy strategies that we should consider to address staffing supply issues such as nursing shortages?

2. Administration (§ 483.70)

We believe that a comprehensive approach to establishing staffing requirements is necessary to ensure that facilities are making thoughtful, informed staffing plans and decisions to support the health, safety, and well-being of residents. In particular, we want to avoid unintended consequences of establishing a minimum nurse

⁹⁷ FN #93, NASEM, p. 58.

⁹⁸ Medicare and Medicaid Programs; Report of Requirements for Long-Term Care Facilities. 81 FR 68688. Published on October 4, 2016.

⁹⁹ FN #24, p. 68754.

¹⁰⁰ FN #24, p. 68754.

¹⁰¹ National Academies of Sciences, Engineering, and Medicine. 2022. *The National Imperative to Improve Nursing Home Quality: Honoring Our Commitment to Residents, Families, and Staff*, Recommendation 2B.

staffing requirement that could lead to a regression by those facilities currently staffing above the staffing requirement or facilities only staffing at the minimum level proposed without considering whether resident acuity or resident census, requires additional staffing above that floor. It is our expectation that LTC facilities will consider their capabilities and capacity, as well as the number, acuity, and diagnoses of their residents when developing staffing schedules.

As previously discussed, in 2016, we released a final rule that revised the requirements that LTC facilities must meet to participate in the Medicare and Medicaid Programs.¹⁰² As part of those revisions, we finalized revisions at § 483.70(e), *Administration*, to require facilities to conduct, document, and annually review a facility-wide assessment to determine what resources are necessary to care for its residents competently during both day-to-day operations and emergencies. This facility-wide assessment requires LTC facilities to determine adequate staffing type and level based on the number of residents, resident acuity, range of diagnoses, the content of care plans, and other factors. LTC facilities are also required to address and document in their facility assessments their resident population (that is, number of residents, overall types of care and staff competencies required by residents, and cultural aspects), resources (for example, equipment, and overall personnel), and a facility-based and community-based risk assessment.

While we assumed when we finalized the 2016 rule that most LTC facilities already conducted some type of facility assessment of the resident population and resources required as part of their normal strategic planning, our revisions aimed to ensure that facilities had a formal process for consistently conducting and documenting these assessments and keeping them up-to-date. The formal facility assessment process requires facilities to make thoughtful, person-centered staffing plans and decisions focused on meeting resident needs that may help improve the safety of residents. We believe this approach will help facilities comply with the requirement to have sufficient staff, which is investigated during surveys.

One of the goals of the 2016 revisions to the LTC facility participation requirements for health and safety was

to ensure that our regulations align with current clinical practice and allow flexibility to accommodate multiple care delivery models to meet the needs of diverse populations that receive services in these facilities. As noted previously, given the limitations of the PBJ System data in 2016, we enacted a competency-based approach in the 2016 final rule, that focused on achieving the statutorily mandated outcome of ensuring that each resident is provided care that allows the resident to maintain or attain their highest practicable physical, mental, and psychosocial well-being. The facility assessment requirement was central to the revised 2016 LTC facility participation requirements, and was intended to be used by the facility for multiple purposes, including, but not limited to, determining adequate staffing and other resources, establishing a Quality Assurance and Performance Improvement (QAPI) program, and conducting emergency preparedness planning.

Our expectation was that the application and development of the facility assessment requirement and competence-based staffing decisions would involve every service provided by a LTC facility and apply to all staff, including the interdisciplinary team. For example, a facility that provides dementia care would need to ensure that it has a sufficient number of staff with the necessary skill sets and competencies to care for individuals living with dementia. In addition, CMS intended for facilities to use the facility assessment as a resource and planning tool for both short-term (day-to-day) and long-term (strategic) purposes.

As part of the FY2023 SNF PPS proposed rule, we sought public input on how the facility assessment requirement should impact the minimum staffing requirement (87 FR 22720). Many commenters suggested that the facility assessment requirement should be used to complement the minimum staffing requirement and to determine any additional nursing staff that the facility needs, based on the acuity and needs of its resident population. Other commenters shared concerns that the Federal regulations established in 2016 requiring nursing homes to conduct a facility self-assessment have never been adequately enforced or surveyed.

As discussed earlier in this proposed rule, the recent 2022 Nursing Home Staffing Study¹⁰³ included in-person

interviews and surveys with facility leadership, direct care staff, and residents and their family members to better understand the relationship among nurse staffing levels, staffing mix, and the safety and quality of resident care. During interviews, staff respondents (RNs, LPNs, NAs) were asked to identify the number of residents that they could provide with quality and safe care and to recommend minimum staffing requirements. Respondents consistently noted that resident acuity was more important than the actual number of assigned residents in determining whether they could provide quality and safe care based on their staffing assignments. Some respondents suggested minimum staffing requirements in terms of the number of residents per shift/unit, accounting for acuity, that they could safely manage and reported that their usual shift/unit is frequently short-staffed. Some respondents also reported concerns about a potential minimum staffing requirement being set too low, fearing that administrators will understaff shifts, or that the minimum will become the maximum.

Furthermore, we share the concern that there may be facilities who currently exceed the proposed minimum staffing level and could potentially be perversely incentivized to lower their staffing levels to the required minimum staffing levels, rather than continuing to staff above that level to meet the unique care needs of their residents. Therefore, we underscore that in addition to meeting the proposed minimum staffing levels, the facility assessment must continue to be used to determine the necessary resources and staff that the facility requires to care for its residents, regardless of whether or not the facility is staffed at or above the new minimum staffing requirement. Furthermore, we emphasize that a LTC facility's staffing decisions should be based on the specific needs of its resident population and not motivated by cost-savings. Thus, while each LTC facility must comply with the minimum nurse staffing requirements set forth at § 483.35(a), unless the facility qualifies for a hardship exemption under § 483.35(g), the facility must also provide sufficient staff (RNs, licensed nurses, and NAs) to provide nursing care to all residents in accordance with the residents' assessments and individual care plans (§ 483.35—introductory statement). Lastly, we note that this proposed rule is not intended to, and would not preempt the applicability of any State or local law providing a higher standard (in this case, a higher HPRD ratio or an RN

¹⁰² <https://www.federalregister.gov/documents/2016/10/04/2016-23503/medicare-and-medicaid-programs-reform-of-requirements-for-long-term-care-facilities>.

¹⁰³ Abt Associates. (2022). Nursing Home Staffing Study Comprehensive report. Report prepared for the Centers for Medicare and Medicaid Services <https://edit.cms.gov/files/document/nursing-home-staffing-study-final-report-appendix-june-2023.pdf>.

coverage requirement in excess of one RN on site 24-hours per day, 7 days a week) than would be required by these proposed rules. To the extent Federal standards exceed State and local minimum staffing standards, no Federal pre-emption is implicated because facilities complying with Federal law would also be in compliance with State law. We are not aware of any State or local law providing for a maximum staffing level. However, we note that this proposed rule is intended to and would preempt the applicability of any State or local law providing for a maximum staffing level, to the extent that such a State or local maximum staffing level would prohibit a Medicare and Medicaid certified LTC facility from meeting the minimum HPRD ratios and RN coverage levels proposed in this rule.

To ensure that facilities are utilizing the facility assessment as intended, we are proposing to redesignate the existing requirements for the facility assessment to its own standalone section from § 483.70(e) to proposed § 483.71. We note that we are also proposing technical changes throughout the CFR to replace references to § 483.70(e) with § 483.71 based on this proposed change. Given the importance of the facility assessment requirement and the multiple program ways in which the assessment may be used to inform a facility's decision-making and planning, we believe that the requirements should be set out as a standalone section rather than in the Administration section. In addition, while the responsibility to implement and utilize the facility assessment to inform facility operations belongs to the facility's administrator and governing body, we acknowledge that a multitude of facility leadership and management contribute to the development of the assessment given its importance and broad applicability.

In addition to redesignating (this is, relocating or moving) the existing requirements to a standalone section, we are also proposing clarifications throughout the section to further specify what the facility assessment must be used for. We propose to redesignate the stem statement for current § 483.70(e) to the stem statement for proposed § 483.71. Existing paragraphs § 483.70(e)(1) through (3) identify the key elements of the facility assessment and specify the considerations that the assessment must account for, including the facility's resident population, resources, and the facility and community-based risk assessment which is required to complete as part of the facility's emergency planning. This includes using their assessment of

resident needs to determine the competencies and skill sets their staff needs to provide safe and quality care for the residents. The LTC facility should also use the information from the facility assessment to determine their training needs for its staff. We propose to redesignate § 483.70(e)(1) through (3) as proposed § 483.71(a)(1) through (3), respectively. We note the discussion of the proposed revisions follows the organization of the requirements as presented in the new standalone section we are proposing at § 483.71.

At new paragraph § 483.71(a)(1)(ii), we propose to clarify that facilities would have to address in the facility assessment details of its resident population, including the care required by the resident population, using evidence-based, data driven methods that consider the types of diseases, conditions, physical and behavioral health issues, cognitive disabilities, overall acuity, and other pertinent facts that are present within that population, consistent with and informed by individual resident assessments as required under existing § 483.20 "Resident Assessment.". Specifically, we propose to revise this paragraph by specifying the "use of evidence-based, data driven methods" and create a link to the requirements for the resident assessment. Facilities are expected to update their facility assessment as needed, no less than annually, using evidence-based, data-driven methods, that consider the needs of their residents and the competencies of their staff. For example, facilities need to be able to describe residents' acuity levels in order to understand the care and services required, and we would expect that they refer to data sources such as the resident assessments; comprehensive care plans; MDS; RUG-IV categories, if available; or, other resident acuity tools. Assessing acuity levels and effectively using MDS and discharge planning are also an important part of ensuring that an individual can return to the community whenever possible in the least restrictive environment.

In addition, existing regulations at § 483.40 require LTC facilities to provide each resident with the necessary behavioral health care and services for the resident to attain or maintain the highest practicable physical, mental, and psychosocial well-being, in accordance with his or her comprehensive assessment and plan of care. Hence, we also propose to revise this paragraph to add "behavioral health issues" to clarify that LTC facilities must consider their residents' physical

and behavioral health issues. We are also concerned with issues of inaccurate MDS coding of residents with a diagnosis of schizophrenia and are taking action to reduce the inappropriate use of antipsychotics without clinical indication in nursing homes.¹⁰⁴ Therefore, we believe these revisions are necessary to ensure that facilities are providing residents with appropriate services and care for behavioral health. At new § 483.71(a)(1)(iii), we propose to add "and skill sets" so the requirement reads, "(iii) The staff competencies and skill sets that are necessary to provide the level and types of care needed for the resident population." At new § 483.71(a)(3), we propose to add a cross-reference to the existing requirements for facilities to conduct a facility and community-based risk assessment as part of their emergency planning resources.

At new § 483.71(a)(4), we propose to require facilities to include the input of facility staff, including but not limited to categories such as nursing home leadership, management, direct care staff and their representatives, and staff providing other services. A comprehensive assessment of what resources are required for a LTC facility to provide safe care for its resident population requires the input from facility staff familiar with all of its essential services. Nursing staff working in facilities can provide information to facility management regarding their caseload and how many residents they believe they can safely provide quality care to on a daily basis. Nursing staff are also familiar with the unique needs of their resident population and can speak to the staffing needs at both a shift and unit level.

In addition, direct care employee representation in the facility assessment is critically important to securing an accurate analysis of staffing needs required to ensure resident health and safety. Direct care employees and their representatives are uniquely positioned to assess and communicate what staffing competencies and levels, as well as equipment and other resources are needed to provide appropriate care. These individuals have a unique understanding of the resident population's health needs because of their on-the-ground knowledge of residents' care needs and facility operations. As examples, direct care employees have distinct perspectives into what additional training is needed to manage increased acuity in resident

¹⁰⁴ <https://www.cms.gov/files/document/qso-23-05-nh.pdf>.

needs; what ethnic, cultural, and religious factors are critical to the provision of culturally competent resident care; and how health information technology may be better leveraged to deliver consistent, quality care according to resident preferences.

Input into the facility assessment from any authorized representatives of direct care employees serves several important functions. Such representatives may sometimes be better positioned to directly communicate about facility conditions and the needs of the resident population on behalf of direct care employees who may fear retaliation from their employer. There may also be circumstances where direct care employees are not fluent in English or not familiar with translating observations into resource categories and want a trusted representative to enable open and effective communication in the facility assessment. Alongside direct care employees, their representatives may also help ensure facility assessments are up-to-date and used to inform facility staffing.

Representatives of direct care employees may take different forms. One scenario of representation may involve union workplaces where employees have designated a union representative, such as an employee or third-party elected local union representative, business agent, or safety and health specialist. Representation may also arise in workplaces without collective bargaining agreements where at least one employee or a subset of employees have designated a representative from amongst themselves or a third-party worker advocacy group, community organization, local safety organization, or labor union to serve as their representative in a facility assessment. For example, employees may choose to authorize a union safety and health specialist to help compile staff observations regarding unmet training needs or communicate safety concerns regarding outdated medical equipment, which they may not otherwise feel comfortable sharing as part of their direct reflections on resident needs.

These benefits of enabling the participation of direct employee representatives are consistent with the demonstrated positive association between union representation and resident well-being. According to a recent study, resident mortality and worker infection rates were lower in nursing homes with union representation compared to those without; specifically, the study found unions were associated with 10.8

percent lower resident COVID-19 mortality rates and 6.8 percent lower worker infection rates.¹⁰⁵ We are soliciting public comments on additional studies and data that demonstrate the benefits of the participation of direct employee representatives in the facility assessment process.

Other staff, including but not limited to those in food and nutrition, pharmacy, and facility services, could provide vital information on essential services and resources required to care for the resident population. If the LTC facility provides other services including but not limited to physical therapy or dialysis, it should include input from staff familiar with these services as well. A comprehensive assessment of what resources are required for a LTC facility to provide safe care for its resident population requires the input from facility staff familiar with all of its essential services. We encourage LTC facilities to include the input of not only those personnel from the specifically mentioned areas in the proposed requirement, but also of staff from all areas and their representatives that provide essential services or resources for residents. We request comments on the operational challenges or burdens of this provision as well as how CMS can best provide oversight of this proposed requirement.

We propose at new § 483.71(b)(1) to require facilities to use the facility assessment to inform staffing decisions to ensure appropriate staff are available with the necessary competencies and skill sets necessary to care for its residents' needs as identified through resident assessments and plans of care as required in § 483.35(a)(3). This requirement will help to address some outstanding concerns due to limitations in the PBJ System. While PBJ System data has allowed for additional insight into the staffing levels of facilities, there remain some limitations as to what that data can tell us regarding how facilities are staffed. For example, PBJ System data cannot give us insight into how different resident units are staffed. There are some units in LTC facilities that require higher levels of care based upon the resident acuity, such as memory care or ventilator units. PBJ System data also does not provide information regarding how different shifts are staffed within a LTC facility. The Government Accountability Office, HHS, and OIG have raised concerns

¹⁰⁵ Dean, A., McCallum, J. et al. Resident Mortality And Worker Infection Rates From COVID-19 Lower In Union Than Nonunion US Nursing Homes, 2020–21. April 20, 2022. <https://doi.org/10.1377/hlthaff.2021.01687>.

related to inadequate staffing in LTC facilities on the weekends and at night.¹⁰⁶ The new requirement at § 483.71(b)(1) will help address that.

In addition, we propose at new § 483.71(b)(2) to require facilities to use the facility assessment to assess the specific needs for each resident unit in the facility, and to adjust as necessary based on any significant changes in the resident population. Facilities would also be required, at new § 483.71(b)(3), to consider the specific staffing needs for each shift, such as day, evening, night, weekends, and to adjust as necessary based on any significant changes to the resident population.

We propose at new § 483.71(b)(4) that LTC facilities would have to use their facility assessment to develop and maintain a staffing plan to maximize recruitment and retention of nursing staff. This staffing plan requirement is consistent with the aims President Biden articulated in the April 2023 “Executive Order on Increasing Access to High-Quality Care and Supporting Caregivers”.¹⁰⁸ That E.O. directs the Secretary of HHS to consider actions to encourage LTC facilities to reduce nursing staff turnover.¹⁰⁹ This action may help improve quality in LTC facilities since literature evidence suggests that decreases in quality are associated with even a low-to-moderate increase in RN turnover.¹¹⁰ This E.O. also directs the Secretary to consider additional actions to improve retention of nursing staff by advancing efforts to measure and adjust payments based on staff turnover.¹¹¹ For LTC facilities to not only comply with both the current and proposed staffing requirements in this rule but also to achieve the E.O.’s goal of increasing access to higher quality care for LTC facility residents and supporting LTC facility nursing staff, it would be necessary for these facilities to be able to recruit and retain

¹⁰⁶ Additional Reporting on Key Staffing Information and Stronger Payment Incentives Needed for Skilled Nursing Facilities, July 2021, GAO-21-408, <https://www.gao.gov/assets/gao-21-408.pdf>.

¹⁰⁷ CMS Use of Data on Nursing Home Staffing: Progress and Opportunities To Do More, March 2021, OEI-04-18-00451, <https://oig.hhs.gov/oei/reports/OEI-04-18-00451.asp>.

¹⁰⁸ Executive Order on Increasing Access to High-Quality Care and Supporting Caregivers. White House. Accessed at <https://www.whitehouse.gov/briefing-room/presidential-actions/2023/04/18/executive-order-on-increasing-access-to-high-quality-care-and-supporting-caregivers/>. Published on April 18, 2023. Accessed on April 19, 2023.

¹⁰⁹ FN #107, Section 2(b)(ii).

¹¹⁰ Castle, Nicholas G, and John Engberg. “Staff turnover and quality of care in nursing homes.” *Medical care* vol. 43,6 (2005): 616–26. doi:10.1097/01.mlr.0000163661.67170.b9.

¹¹¹ FN #107, Section 2(b)(ii).

sufficient numbers of nursing staff with the appropriate education, training, competencies, and skill sets. To meet these objectives, we believe LTC facilities would need a staffing plan to address staff turnover and consider ways to support staff retention. We have not specified how the staffing plan should be developed or what it must contain because we believe that LTC facilities should have flexibility in developing these plans. However, we encourage LTC facilities to assess the compensation package the facility offers its direct care staff as part of developing the staffing plan. We request comments on the operational challenges or burdens of this provision, as well as how CMS can best provide oversight of this proposed requirement.

We are aware that the COVID-19 PHE has had an impact on the availability of nursing staff in many States, with more facilities needing to use temporary staffing agencies to fill positions, and we want to ensure that facilities have a plan in place should staffing shortages impact their ability to safely provide care to their residents. At proposed § 483.71(b)(5), we are proposing to require facilities to use the facility assessment to inform contingency planning for events that do not require the activation of the facility's emergency plan but do have the potential to impact resident care. For example, facilities should have a contingency plan in place in the event that there is unavailability of direct care nursing staff or other resources needed for resident care.

In summary, we note that the facility assessment works in conjunction with the minimum nursing staff requirements proposed in § 483.35. While we propose to require all LTC facilities (subject to exemptions) to comply with the minimum nursing staffing requirements as set forth at § 483.35(a), those minimum standards are only the beginning. By conducting the facility assessment, the facility will be able to determine what is sufficient staffing, as required by § 483.35(a), for its resident population. The facility assessment will determine not only the sufficient number of staff, but also what competencies and skill sets that staff needs to provide safe care for the resident population. Thus, we emphasize that all LTC facilities must comply with the nursing staff minimums; however, these minimums alone are not targets nor a safe harbor, and facilities may need to staff above the minimum requirements proposed in this rule to satisfy the requirement for sufficient staffing. Conducting the facility assessment will determine not only the number of staff but also the

competencies and skill sets that staff must possess to provide safe and high-quality care for the facility's resident population as identified through resident assessments and plans of care as required in existing § 483.35(a)(3).

3. Hardship Exemption From the Minimum Hours per Resident Day Requirements for RNs and NAs

As noted earlier, we are proposing a hardship exemption to the HPRD requirements portion of the minimum staffing standards. The exemption would apply only to the RN and/or NA HPRD requirements and is separate and distinct from existing the existing statutory waiver process that addresses, in particular, overarching RN staffing requirements. While we acknowledge the potential for overlap between the exemption and the waiver (that is, a 24/7 RN may meet the HPRD requirement), each of the minimum staffing requirements independently supports resident health and safety. Therefore, meeting the 24/7 requirement does not also count as meeting the 0.55 RN HPRD and 2.45 NA HPRD and vice versa. Specifically, as discussed elsewhere in this rule, the presence of an RN in a LTC facility on a 24-hour basis improves overall quality of care. Similarly, but separately, a minimum number of RN and NA hours per resident per day improve overall quality of care. Both independently and collaboratively, these requirements support meeting statutory mandates to provide services to attain or maintain the highest practicable physical, mental, and psychosocial well-being of each resident, in accordance with a written plan of care. Both the exemptions and the waiver are discussed in more detail below.

We fully expect that LTC facilities will be able to comply with our proposed standards for nursing staff. However, we recognize that some interested parties have expressed that, in some instances, external circumstances may prevent a LTC facility from meeting our proposed minimum staffing requirements, despite the LTC facility's best efforts. We note, for example, that the COVID-19 PHE exacerbated workforce unavailability issues for some LTC facilities. Some LTC facilities may be challenged in hiring and retaining nursing staff such as registered nurses and certified nursing assistants due to local workforce unavailability, while others may need to improve pay and job quality in order to attract and retain staff, given competition from higher-paying positions or alternate career paths. A 2020 Assistant Secretary for

Planning and Evaluation (ASPE) Report found that the COVID-19 PHE contributed to staffing shortages and health care worker attrition, pushing nursing homes to create and implement new recruitment infrastructures, increase wages, and augment benefits to retain staff.¹¹² As noted in the FY 2023 SNF PPS RFI comments and by interested parties during the CMS hosted listening sessions previously discussed, there is concern from LTC trade associations about whether there is adequate staffing available to meet resident needs and about the feasibility of increasing staffing over a short timeframe given workforce and cost considerations. LTC facility staff interviewees who were part of the qualitative portion of the 2022 Nursing Home Staffing Study¹¹³ also shared concerns about unintended consequences of requiring minimum staffing levels, with fears that some nursing homes could be forced to close if they cannot come into compliance with the minimum requirements.

According to the Bureau of Labor Statistics (BLS), in March 2020, there were 3,372,000 health care staff working in nursing homes and other LTC facilities. This dropped to a low of 2,961,200 in January 2022, a loss of 410,000 staff. This is rebounding, as of June 2023 there are roughly 235,900 fewer health care staff working in nursing homes and other LTC facilities compared to March of 2020.¹¹⁴ The decline in staff coincided with decreasing LTC facility census beginning in March 2020, as noted below. A January 2023 AHCA/NCAL Report analyzing BLS data notes that other health care sectors (Physician Offices, Outpatient settings, Home Health, and Hospitals) rebounded more quickly than the nursing home sector. This difference in return to employment may have been driven by the comparatively low pay and difficult working conditions for nursing home workers.¹¹⁵ Commenters to the FY 2023

¹¹² COVID-19 Intensifies Nursing Home Workforce Challenge, Danny-Brown et al., 2020.

¹¹³ Abt Associates. (2022). Nursing Home Staffing Study Comprehensive report. Report prepared for the Centers for Medicare and Medicaid Services <https://edit.cms.gov/files/document/nursing-home-staffing-study-final-report-appendix-june-2023.pdf>.

¹¹⁴ Bureau of Labor Statistics. https://data.bls.gov/timeseries/CES6562300001?amp%253bdata_tool=XGtable&output_view=data&include_graphs=true. Accessed 08/09/2023. https://data.bls.gov/timeseries/CES6562300001?amp%253bdata_tool=XGtable&output_view=data&include_graphs=true. Accessed 08/09/2023.

¹¹⁵ <https://www.ahcanal.org/News-and-Communications/Fact-Sheets/FactSheets/LTC-Jobs-Report-Jan2023.pdf>.

SNF PPS RFI noted concerns such as, “We are losing many long-term employees to jobs with better salaries and many of these jobs are not in healthcare. New hires are demanding a higher starting salary as well as large sign on bonuses.” Several labor and consumer advocacy groups noted competitive wages as a driving factor in staff retention/recruitment. Based on our estimations detailed in section VI. (Regulatory Impact Analysis), of this rule, we expect that a total of 12,639 additional RNs and 76,376 additional NAs will be needed to meet our proposed HPRD requirements, before accounting for any exemptions. In particular, we recognize that lower staffed nursing homes are more likely to be for-profit, larger, rural, and have a higher share of Medicaid residents.¹¹⁶ Some recent developments, however, should ease staffing difficulties at LTC facilities. According to BLS data, as of January 2022, the number of LTC facility staff has begun to rebound. The number of health care staff working in nursing homes and other LTC facilities as of June 2023 is 3,136,100, with preliminary data indicating continued rebound.¹¹⁷ Furthermore, beginning in March 2020, facility census declined. By the end of September 2020, nursing home census had declined by an average of nine residents per nursing home, going from an average of 86 residents in January 2020 to 77 residents in September 2020.¹¹⁸

We recognize that LTC facility workers—disproportionately women of color—are among the lowest-paid in the country and often have to rely on public benefits despite working complex and demanding jobs. In addition, poor working conditions in LTC facilities have been found to influence the quality of care provided to residents.¹¹⁹

Investments in the care workforce, including competitive wages, are foundational to helping to retain LTC facility workers and improving health and educational outcomes. Unfortunately, lack of transparency regarding nursing home finances, operations, and ownership impedes the ability to fully understand how current resources are allocated.¹²⁰ This obscures evaluation of the industry’s ability to absorb the costs of increased staffing and improved working conditions. It is the policy of the Biden-Harris Administration to ensure that the LTC workforce is supported, valued, and well-paid. Indeed, as previously noted, on April 18, 2023, President Biden issued an E.O. on Increasing Access to High Quality Care and Supporting Caregivers. Section 2 of that E.O. addresses Increasing Compensation and Improving Job Quality for Family Caregivers, Early Educators, and Long-Term Care Workers.¹²¹

To improve working conditions and job quality in federally-funded LTC facility programs, we are encouraging providers to establish incentives to recruit and retain LTC facility workers, help prevent burnout, make it as easy as possible for LTC facility workers to access behavioral health services, and improve the care that individuals receive. The considerations described above, ranging from workforce issues exacerbated by the COVID–19 pandemic, to persistently low wages and benefits, and poor working conditions for the direct care workforce, have informed our approach to the proposed minimum staffing standards, including the 0.55 RN and 2.45 NA HPRD requirements and the proposed exemptions.

The goal of the proposed minimum nursing staffing requirement is to ensure that residents receive safe and high-quality care. It is our intention to balance this goal with the need to ensure access to care, which is an important health and safety consideration. Therefore, CMS is proposing a hardship exemption to the minimum staffing standards, either the 0.55 RN or the 2.45 NA HPRD requirements, or both, proposed at

§ 483.35(a)(1)(i) and (ii). These proposed exemptions will help to address the current workforce constraints in certain jurisdictions and other potential barriers that some LTC facilities may be experiencing in the wake of the COVID–19 PHE, and to ensure that our proposals do not unintentionally create access issues. Specifically, we propose to re-designate the existing requirements for nurse staffing information at existing § 483.35(g) to a new paragraph (h). We propose at new § 483.35(g) to allow LTC facilities with a verifiable hardship that precludes the LTC facility from achieving or maintaining compliance to be exempt from one or both of the proposed requirements at § 483.35(a)(1)(i) and (a)(1)(ii). Given the complex health needs of LTC residents, to protect resident health and safety, we believe that it is important for exempted LTC facilities to maintain compliance with the 24/7 RN requirement as there are longstanding concerns related to low staffing levels in LTC facilities on weekends and evenings and ongoing RN presence is needed to provide care and monitor resident health. That requirement may be waived only through the waiver process implemented at § 483.35(f) and described below.

In developing our proposed minimum standards for nurse staffing, we recognized that sections 1819(b)(4)(C)(ii) and 1919(b)(4)(C)(ii) of the Act established a waiver process for RN/licensed nurse staffing in LTC facilities. We therefore considered whether or not a similar mechanism would be appropriate for minimum HPRD requirements. We determined, in the same spirit as the existing waiver process, to propose exemptions intended to address underlying workforce unavailability concerns, especially in rural and other underserved areas, while balancing the need for efforts by LTC facilities to recruit staff and improve quality of care. While allowing for these exemptions, we note that each LTC facility must still comply with its statutory and regulatory obligations to have sufficient staff to assure resident safety, and to attain or maintain the highest practicable physical, mental, and psychosocial well-being of each resident.

These exemptions, while serving a similar purpose, differ from, but are not inconsistent with the waiver for RN and licensed nurse staffing under sections 1819(b)(4)(C)(ii) and 1919(b)(4)(C)(ii) of the Act. The waiver provisions are implemented at § 483.35 (e) and (f). The proposed exemptions will be located at § 483.35(g). We emphasize that the exemptions apply only to the

¹¹⁶ Abt Associates. (2022). Nursing Home Staffing Study Comprehensive report. Report prepared for the Centers for Medicare and Medicaid Services. <https://edit.cms.gov/files/document/nursing-home-staffing-study-final-report-appendix-june-2023.pdf>.

¹¹⁷ Employment, Hours, and Earnings from the Current Employment Statistics survey (National) https://data.bls.gov/timeseries/CES6562300001?amp%253bdata_tool=XGtable&output_view=data&include_graphs=true Accessed 08/09/2023.

¹¹⁸ Nursing Home Nurse Staff Hours Declined Notably during the COVID–19 Pandemic, with CNAs Experiencing the Largest Decreases Issue Brief (hhs.gov), <https://aspe.hhs.gov/sites/default/files/documents/95b3a0f6294c7bb021cfbdc245cd9820/nh-nurse-staff-hours-brief.pdf>.

¹¹⁹ Perruchoud, Elodie et al. “The Impact of Nursing Staffs’ Working Conditions on the Quality of Care Received by Older Adults in Long-Term Residential Care Facilities: A Systematic Review of Interventional and Observational Studies.” *Geriatrics* (Basel, Switzerland) vol. 7, 1 6. 28 Dec. 2021, doi:10.3390/geriatrics7010006.

¹²⁰ National Academies of Sciences, Engineering, and Medicine; Health and Medicine Division; Board on Health Care Services; Committee on the Quality of Care in Nursing Homes. *The National Imperative to Improve Nursing Home Quality: Honoring Our Commitment to Residents, Families, and Staff*. Washington (DC): National Academies Press (US); 2022 Apr 6. Summary. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK584660/>.

¹²¹ <https://www.whitehouse.gov/briefing-room/presidential-actions/2023/04/18/executive-order-on-increasing-access-to-high-quality-care-and-supporting-caregivers/>.

requirements at § 483.35(a)(1)(i) and (ii) for LTC facilities to meet minimum HPRD staffing requirements for RNs and NAs, while the statutory waiver applies specifically to either RN or licensed nurse services more broadly. Both take into consideration ensuring staff sufficiency to achieve resident safety and well-being, but will be different processes.

The proposed exemption process would be implemented with as little administrative burden on LTC facilities as possible, while also limiting opportunities for inappropriate granting of exemptions; it would also ensure that we are aware of the staffing status of the LTC facility. To obtain an exemption, a LTC facility must demonstrate that it has been unable to recruit appropriate personnel. In addition, the facility remains obligated to ensure the health and safety of facility residents. Therefore, prior to being granted an exemption, the LTC facility must be surveyed to assess the health and safety of the residents. If a LTC facility is found noncompliant with the minimum staffing requirements and does not meet the exclusionary criteria discussed below, the LTC facility's documentation of a good faith effort to hire and retain staff and the LTC facility's documentation of financial commitment must be submitted to CMS. If a LTC facility meets the exclusionary criteria, it will not be considered for an exemption. Such criteria include that the LTC facility must not have failed to submit PBJ System data in accordance with re-designated § 483.70(p), must not be an SFF facility, and must not have been cited by us as having "widespread" or "a pattern of insufficient staffing with resultant resident harm" or at an "Immediate Jeopardy to resident health and safety" level of severity with respect to understaffing within the 12 months preceding the survey during which the facility's non-compliance is identified. We note that the exemptions do not have a separate requirement for the availability of an RN or physician for immediate response, as the exemptions do not relieve the LTC facility of its obligation to have 24/7 RN presence. If a LTC facility were to obtain a waiver of RN/licensed nurse staffing through the existing waiver process, the LTC facility would provide assurances related to having necessary staff availability, among other assurances, as part of that process to obtain such a waiver. We intend to make publicly available information on LTC facilities that have an exemption to the minimum

staffing requirements, to assist residents and families in choosing a LTC facility.

To qualify for a hardship exemption, we are proposing that LTC facilities must meet all of the criteria specified at § 483.35(g)(1) through (4). Those criteria include:

1. *Location (proposed § 483.35(g)(1))*: To meet the criterion for location, a LTC facility must either be located:

a. In an area where the supply of the applicable health care staff (either RN, or NA, or both) is not sufficient to meet geographic area needs as evidenced by either a medium (that is, 20 percent below the national average) or low (that is, 40 percent below national average) provider-population ratio for nursing workforce (§ 483.35(g)(1)(i)), as calculated by us, currently by using Bureau of Labor Statistics and Census Bureau data, or

b. Twenty miles or more from the next closest LTC facility, as determined by CMS (§ 483.35(g)(1)(ii)).

2. *Demonstrated Good Faith Effort to Hire and Retain Staff (proposed § 483.35(g)(2))*: To meet the criterion for demonstrated good faith effort to hire and retain nursing staff, a LTC facility must be surveyed and cited as noncompliant with the minimum staffing requirements, while not meeting the exclusionary criteria in section 4. To meet this good faith effort criterion, a LTC facility must have developed and implemented a recruitment and retention plan, as required at proposed § 483.71(b)(5), and must demonstrate that it has been unable, despite diligent efforts including offering prevailing wages, to recruit and retain appropriate nursing staff including NAs. The LTC facility must document recruitment efforts. Such documentation is expected to include job listings in commonly used recruitment forums found online, at American Job Centers (coordinated by the U.S. Department of Labor's Employment and Training Administration), and other forums as appropriate (§ 483.35(g)(2)(i)), job vacancies including the number and duration of vacancies, and offers made (§ 483.35(g)(2)(ii)). The documentation must show that offers are made at prevailing wages or better, as reflected by looking at data on the average wages in the Metropolitan Statistical Area in which the LTC facility is located, and vacancies by industry as reported by the Bureau of Labor Statistics or by the State's Department of Labor (§ 483.35(g)(2)(iii)). This look-back would occur for the time period following when the vacancies occurred. Generally, we would expect that to be a 4- to 6-month period, but could encompass the full year, based on

circumstances around the vacancies. Finally, the documentation must include the LTC facility's staffing plan in accordance with proposed § 483.71(b)(4).

3. *Demonstrated Financial Commitment (proposed § 483.35(g)(3))*:

To meet the criterion for financial commitment, a LTC facility must be surveyed and cited as noncompliant with the minimum staffing requirements, while not meeting the exclusionary criteria in section 4. Once a finding of noncompliance has occurred, the LTC facility must demonstrate through documentation the financial resources that the LTC facility expends annually on nurse staffing relative to revenue.

4. *Exclusions*. LTC Facilities must not have failed to submit PBJ System data in accordance with re-designated § 483.70(p), must not have been determined by us to be an SFF facility, and must not have been cited by us as having "widespread insufficient staffing with resultant resident harm" or "a pattern of insufficient staffing with resultant resident harm", or at an "Immediate Jeopardy to resident health and safety" level of severity with respect to understaffing within the 12 months preceding the survey during which the facility's non-compliance is identified.

With respect to location, we are proposing that LTC facilities meet one of two distinct sub criterion to qualify for an exemption. If an LTC meets one of those criteria, they would then be evaluated for fulfilling the remaining criteria listed above.

The first sub criterion applies to LTC facilities that are located in a geographical area that has a shortage of RNs and/or NAs. We define the geographical area as the metropolitan statistical area (MSA) or non-metropolitan statistical area (non-MSA) where the LTC facility is located using data from the U.S. Bureau of Labor Statistics (available at https://www.bls.gov/oes/current/msa_def.htm). We determine that there is a "shortage" when the MSA or non-MSA has a RN and/or NA to population ratio that is 20 percent below the national average. We provide the definitions of both medium and low provider to population ratio to facilitate comment on the appropriate level to use.

To calculate whether a LTC facility is in an area with a shortage of RNs or NAs, we first use the Care Compare data to identify the State and county where each LTC facility is located. We then combine these data with information from the U.S. Bureau of Labor Statistics (available at <https://www.bls.gov/oes/>

current/msa_def.htm) on the counties in each MSA and non-MSA to identify the MSA or non-MSA where each LTC facility is located. Next, we identify the total number of RNs and NAs in each MSA and non-MSA using the Bureau of Labor Statistics's Occupational Employment and Wage Statistics Query System (available at <https://data.bls.gov/oes/#/home>). Afterwards, we calculate the population for each MSA or non-MSA using population estimates from the United States Census Bureau by summing the population for all counties in the MSA or non-MSA (available at <https://www.census.gov/data/tables/time-series/demo/popest/2020s-counties-total.html#v2022>).

Finally, we calculate whether the LTC facility is located in an MSA or a non-MSA with a medium or low provider-to-population ratio by comparing the area's provider-to-population ratio to the average provider-to-population ratio for the United States.

The second location sub criterion is distance to the next closest LTC facility. We are proposing this alternative distance criterion to address potential workforce unavailability within an MSA or non-MSA that overall has adequate workforce availability, but may have pockets within it that are experiencing shortages. We note that MSA and non-MSA's may be quite large—for example, one MSA extends from Arlington, VA to West Virginia. Particularly for NAs, the availability, or lack thereof, of public transportation in some areas, and the costs and availability of private transportation can make long work commutes unfeasible. We also recognize there may be access to care concerns should a LTC facility limit admissions or close as a result of staff unavailability within a particular community. In addition to access to care and workforce availability issues, we also recognize the burden on residents and resident families when loved ones have to be located in LTC facilities (or relocated to

LTC facilities) at a distance that makes family visitation and participation in care difficult. According to a 2021 study, “travel time has a substantively and statistically significant negative association on visit probability for all age groups”.¹²²

We considered mileage increments from 15 to 50 miles for this alternative criterion. After considering the number of LTC facilities impacted, the overlap of the provider-population ratio, and consideration of travel for both staff and visitors, we determined that 20 miles best addressed these factors compared to a 15-mile increment. As noted below, we welcome comment on this mileage and the factors we should consider in determining an appropriate mileage criterion. We note that all certified nursing homes are geocoded into CMS' online survey and enforcement system. This allows us to easily and accurately calculate the exact distance of LTC facilities to one another. The following chart provides our analyses of distances.

TABLE 3—LTC FACILITIES AT VARIOUS DISTANCES FROM NEXT CLOSEST LTC FACILITY

Distance	# of LTC Facilities without any other LTC facility nearby	% of LTC Facilities without any other LTC facility nearby (percent)
Within 15 miles	852	5.6
Within 20 miles	422	2.8
Within 25 miles	223	1.5
Within 30 miles	155	1.0
Within 35 miles	106	0.7
Within 50 miles	40	0.3

Note: The analysis includes 15,089 LTC facilities (1) active as February 2023 and (2) with non-missing values in latitude or longitude.

There are three exclusions from the exemption criteria. First, LTC facilities must be in compliance with requirements for the submission of PBJ System data. This data is critical to our evaluation of LTC facility staffing. Next, sections 1819(f)(8) and 1919(f)(10) of the Act require us to maintain a SFF program for enforcement of participation requirements for LTC facilities that have been identified as having substantially failed to meet applicable health and safety requirements. We are statutorily-required to survey these LTC facilities once every 6 months. LTC Facilities designated as SFFs have a history of serious quality issues and are included in this program to stimulate improvements in their quality of care. A LTC facility that is designated as a SFF

is excluded from receiving an exemption from the minimum HPRD staffing requirements.

Finally, most LTC facilities have some deficiencies, but some LTC facilities have significantly more problems than others (about twice the average number of deficiencies), or have more serious problems than most other LTC facilities (including harm or injury experienced by residents, and a pattern of serious problems that have persisted over a long period of time). An OIG report on adverse events in nursing homes noted that 59 percent of adverse events and temporary harm events were clearly or likely preventable, and attributed much of the preventable harm to substandard treatment, inadequate resident monitoring, and failure or delay of necessary care.¹²³ Therefore, while we

are acknowledging the potential for LTC facility constraints that may create access to care issues and providing for exemptions as it relates to the minimum nursing staffing requirement, we must ensure that LTC facilities are providing safe and acceptable care despite any exemption. Therefore, we propose at § 483.35(g)(4)(ii) that LTC facilities that have been cited for “widespread insufficient staffing with resultant resident harm” or “a pattern of insufficient staffing with resultant resident harm” or are cited at the immediate jeopardy level of severity with respect to insufficient staffing within the 12 months preceding the survey during which the facility's non-compliance is identified would also not meet the criteria for an exemption from the requirements at § 483.35(a)(1)(i) and

¹²² Weimer, David L., Ph.D., Saliba, Debra, MD, MPH, Ladd, Heather, MS, Mukamel, Dana B., Ph.D. “Who Visits Relatives in Nursing Homes? Predictors of at Least Weekly Visiting” *The Journal*

of Post-Acute and Long-Term Care Medicine. VOLUME 23, ISSUE 7, JULY 2022. Accessed 6/27/2023 [https://www.jamda.com/article/S1525-8610\(21\)00831-8/fulltext#%20](https://www.jamda.com/article/S1525-8610(21)00831-8/fulltext#%20).

¹²³ Adverse Events in Skilled Nursing Facilities: National Incidence Among Medicare Beneficiaries, Department of Health and Human Services, Office of Inspector General.

(ii). Due to the serious quality issues with these LTC facilities and the intent of the proposed requirement, we believe it is necessary to exclude these LTC facilities from the exemption to maintain the health and safety of residents residing in these LTC facilities.

We emphasize again that the exemptions apply only to the requirements at § 483.35(a)(1)(i) and (ii) for LTC facilities to meet minimum HPRD staffing requirements for RNs and NAs. As such, LTC facilities that qualify for an exemption would still be required to comply with the base requirement at § 483.35(a)(1) that LTC facilities provide services by a sufficient number of [nursing] staff on a 24-hour basis to provide nursing care to all residents in accordance with resident care plans, as well as the proposed requirement at § 483.35(b)(1), for a LTC facility to provide onsite RN coverage 24 hours a day, 7 days a week; the proposed requirements at § 483.71, to conduct a facility assessment; as well as the multitude of additional minimum health and safety standards for LTC facilities in 42 CFR part 483, subpart B. They are expected to make the effort to hire as many RNs and NAs as necessary to meet resident needs. We note that LTC facilities remain able to apply for a waiver of the RN and licensed nurse staffing requirements, as required by statute and as applicable to the LTC facility. The requirements for such a waiver are set forth in § 483.35 (e) and (f).

Finally, we propose at § 483.35(g)(5) to specify that determinations of eligibility for an exemption are based on paragraphs (g)(1) through (3) and that facilities must provide supporting documentation when requested. At § 483.35(g)(5), we propose that hardship exemptions would be granted for a period of 1-year and could be extended in increments of one additional year, after the initial 1-year period, if the LTC facility continued to meet the exemption criteria without experiencing additional issues that would prevent them from eligibility.

It is our expectation that LTC facilities that qualify for an exemption would make ongoing efforts to increase their capabilities to achieve compliance with the minimum nurse staffing requirement. Likewise, we expect that additional CMS programs, such as the SNF VBP quality measures, will also incentivize facilities to improve staffing at higher levels to both ensure their ability to address resident needs day to day and also to capitalize on incentives that are at their disposal for quality improvements. We solicit comment on

these opportunities for hardship exemptions for facilities. We welcome all feedback but are particularly interested in the following:

- What are additional data sources that CMS can use to verify LTC facility hardships based on location or workforce unavailability and shortages or grant hardship exemptions? For example, the review of health professional shortage areas (HPSAs). Which data source or criterion, or combination of data sources or criteria, could accurately indicate hardship while minimizing burden to facilities?

- Is 20 miles the right distance from the next closest LTC facility to warrant a hardship exemption? What distance from the next closest LTC facility results in a hardship for resident families?

- Are there other criteria CMS should consider for a facility to demonstrate good faith effort to hire and retain nursing staff. Should CMS use BLS's median OES data to determine prevailing wage?

- Are there additional approaches to mitigating access to care concerns that CMS should consider without allowing for exemptions to the minimum nurse staffing requirement?

- Are there additional exclusions to the proposed exemptions that CMS should consider to protect resident health and safety? For example, should we exclude candidates for the SFF program from receiving an exemption?

- Is 12 months the right look-back time frame for exclusions? If not, what is the best time frame? Should it be 15 months? Should it be to and including the last recertification survey?

- Are there additional hardships that CMS should consider? If so, how will such considerations support quality care and protect resident health and safety?

- Should CMS provide an exemption for facilities based on financial difficulty/constraints? If so, what would be an appropriate judgment of a LTC facility's financial status and/or financial effort? Considering the Medicaid transparency proposal discussed in this proposed rule, should CMS identify minimum spending thresholds for direct care staff that facilities must meet before being considered for an exemption? Is there a specific spending to revenue threshold that would be appropriate? What type of data and/or data sources can be used to maximize transparency and provide an objective determination?

- Are there additional steps that CMS can take to increase transparency and address staffing shortages? For example, this regulation discusses a proposal to require States to report to CMS on the percentage of payments for Medicaid-

covered nursing facility services that are spent on direct care workers and support staff. Are there additional efforts that CMS and facilities can take to promote transparency and accountability related to funding for and supporting staffing?

4. Implementation Timeframe

As discussed, we are proposing a minimum nurse staffing requirement for LTC facilities of 0.55 and 2.45 HPRD by RNs and NAs, respectively. We also propose revisions to the existing RN staffing to require an RN on site 24 hours a day, 7 days a week to provide nursing care to all residents in accordance with resident care plans; and propose revisions to the facility assessment requirement. The adoption of these requirements would improve the safety and quality of care of residents and provide direct care workers with the support needed to provide high-quality care.

We are proposing to implement these proposed requirements in three phases, to avoid any unintended consequences or unanticipated risks to resident care when a facility is developing new policies and procedures necessary to comply with these requirements.

We acknowledge that these proposed requirements would require approximately 79 percent of LTC facilities to increase their staff levels to meet either the RN onsite 24 hours a day, 7 days a week requirement or the minimum RN and NA HPRD requirements to ensure full compliance with the new proposals discussed in the rule.¹²⁴ In addition, we anticipate that additional time would be needed to develop revised interpretive guidance and survey processes, conduct surveyor training on the changes, and implement the software changes in the Long-Term Care Survey Process system.

For facilities located in urban areas, we propose that implementation of the final requirements be achieved in three phases, over a 3-year period. Specifically, we propose that—

- Phase 1 would require facilities to comply with the Facility assessment requirements (§ 483.71) 60-days after the publication date of the final rule.

- Phase 2 would require facilities to comply with the requirement for a RN onsite 24 hours a day, 7 days a week (§ 483.35(b)(1)) 2 years after the publication date of the final rule.

- Phase 3 would require facilities to comply with the minimum staffing

¹²⁴ Calculations use the October 2021 Care Compare data set that provides each nursing home's average daily resident census and HPRD for each nurse type (that is, RNs, LPNs/LVNs, NAs) using the PBJ System data for 2021 Q2.

requirement of 0.55 and 2.45 HPRD for RNs and NAs respectively (§ 483.35(a)(1)(i) and § 483.35(a)(1)(ii)) 3 years after the publication date of the final rule.

Given that there are fewer rural LTC facilities and a higher percentage of rural LTC facilities have greater distances between neighboring facilities, if a facility was not able to comply with the staffing requirement, it can have a more pronounced impact on access of care. Therefore, we expect that facilities in rural areas will require more time to

comply with these requirements, compared to facilities in urban areas.

For facilities located in rural areas, we propose the implementation of the final requirements be achieved in three phases, over a 5-year period. Specifically, we propose that—

- Phase 1 would require facilities to comply with the Facility assessment requirements (§ 483.71) 60-days after the publication date of the final rule.
- Phase 2 would require facilities to comply with the requirement for a RN onsite 24 hours a day, 7 days a week

(§ 483.35(b)(1)) 3 years after the publication date of the final rule.

- Phase 3 would require facilities to comply with the minimum staffing requirement of 0.55 and 2.45 HPRD for RNs and NAs respectively (§ 483.35(a)(1)(i) and (ii)) 5 years after the publication date of the final rule.

We note that the final regulations would be effective 60 days following the publication of the final rule in the **Federal Register**. The implementation date for the specific requirements are listed in detail in Tables 4 and 5.

TABLE 4—IMPLEMENTATION TIMEFRAMES FOR FACILITIES IN URBAN AREAS

Regulatory section(s)	Implementation date
Proposed § 483.71	<i>Phase 1:</i> 60-days after the publication date of the final rule.
§ 483.35(b)(1)	<i>Phase 2:</i> 2 years after the publication date of the final rule.
§ 483.35(a)(1)(i) and (ii)	<i>Phase 3:</i> 3 years after the publication date of the final rule.

TABLE 5—IMPLEMENTATION TIMEFRAMES FOR FACILITIES IN RURAL AREAS

Regulatory section(s)	Implementation date
Proposed § 483.71	<i>Phase 1:</i> 60-days after the publication date of the final rule.
§ 483.35(b)(1)	<i>Phase 2:</i> 3 years after the publication date of the final rule.
§ 483.35(a)(1)(i) and (ii)	<i>Phase 3:</i> 5 years after the publication date of the final rule.

We are defining “rural” in accordance with the Census definition. “Rural” encompasses all population, housing, and territory not included within an urban area.¹²⁵ We solicit public comments on whether a different definition should be used. Also, we seek feedback on the following:

- Is the proposed implementation timeframe appropriate? If not, are there any alternative implementation approaches for these requirements?
- Do other underserved communities similarly require longer implementation timeframes?
- To what extent are facilities and State governments planning to phase in, budget for, and prepare for the requirements before they go into effect? Additionally, what are the anticipated effects on resident health and safety that may be associated with these preparations?

We seek input from State Medicaid programs and Medicaid interested parties. Specifically:

- Are there any alternative implementation approaches for these requirements?
- How might the proposed implementation timeframe impact their finances and their ability to recruit in the same labor market?

- How do you foresee potential interactions with other Medicaid initiatives, including implementing access standards on home and community-based services (HCBS)?

Finally, to the extent a court may enjoin any part of the rule, the Department intends that other provisions or parts of provisions should remain in effect. Any provision of this section held to be invalid or unenforceable by its terms, or as applied to any person or circumstance, shall be construed so as to continue to give maximum effect to the provision permitted by law, unless such holding shall be one of utter invalidity or unenforceability, in which event the provision shall be severable from this section and shall not affect the remainder thereof or the application of the provision to persons not similarly situated or to dissimilar circumstances.

5. Consultation With State Agencies, and Other Organizations

Section 1863 of the Act (42 U.S.C. 1395z), requires the Secretary to consult with appropriate State agencies and recognized national listing or accrediting bodies, and appropriate local agencies, in relation to the determination of conditions of participation for providers of services.

Pursuant to section 1863 of the Act, in addition to publishing the proposed rule we will consult further with the

relevant entities following the publication of the proposed rule.

III. Medicaid Institutional Payment Transparency Reporting Provision (§§ 438.72 and 442.43)

A. Background and Scope

Millions of Americans, including children and adults of all ages, need long-term services and supports (LTSS) because of disabling conditions, chronic illness, and other factors. Medicaid allows for the coverage of these services through several authorities and over a variety of settings, ranging from institutional facilities to home and community-based settings. Medicaid programs are required to provide a nursing facility benefit for eligible individuals aged 21 or older. Medicaid programs may also provide other institutional LTSS as optional services, including services in Intermediate Care Facilities for Individuals with Intellectual Disabilities (ICF/IID). Medicaid is the largest payer nationally of LTSS. In 2019, 1.5 million Medicaid beneficiaries received nursing facility or ICF/IID services,¹²⁶ which accounted for

¹²⁵ United States Census Bureau Urban and Rural <https://www.census.gov/programs-surveys/geography/guidance/geo-areas/urban-rural.html>.

¹²⁶ Kim, Min-Young, Edward Weizenegger, and Andrea Wysocki. *Medicaid Beneficiaries Who Use Long-Term Services and Supports: 2019*. Chicago, IL: Mathematica, July 22, 2022. Accessed at <https://www.medicaid.gov/medicaid/long-term-services-supports/downloads/ltss-user-brief-2019.pdf>.

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over \$61 billion in Medicaid expenditures, or 13 percent of the \$478 billion in total Medicaid expenditures during that year.¹²⁷ Demand for LTSS, whether delivered in institutional settings or in the home, is expected to continue rising due to the growing needs of the aging population.^{128 129}

As discussed in the section on Minimum Staffing Standards (section II. of this proposed rule), anecdotal, quantitative, and qualitative evidence indicates that consistent, adequate direct care nurse staffing is vital to residents' health and safety. Through our regular interactions with State Medicaid agencies, provider groups, and beneficiary advocates, we have observed that all these interested parties routinely express the concern that chronic understaffing and high rates of worker turnover of direct care workers in Medicaid-participating nursing facilities and ICF/IIDs make it difficult to ensure access to high-quality institutional services for people with disabilities and older adults. In addition to direct care nursing staff, other types of direct care workers—such as physical therapists or feeding assistants—provide long-term care services and supports (including, if applicable, components of active treatment as defined at § 483.440) to allow residents to attain or maintain the highest practicable physical, mental, and psychosocial well-being. Additionally, direct care workers play a critical role in helping some residents develop the daily living skills needed to transition out of facilities and back to

the community, as well as with assessing individuals' readiness for discharge and assisting with discharge planning. Also critical to residents' quality of life and quality of care are support staff who maintain the physical environment of the care facility or provide other supports to residents, such as housekeeping or transportation.

Understaffing in nursing facilities and ICF/IIDs can reduce the efficiency of Medicaid payment for services, most clearly when the payment methodology is based on the actual cost of delivering services and such costs are increased due to reliance on overtime and temporary staff, which can have higher hourly costs than non-overtime wages paid to permanent staff. Further, understaffing can reduce quality of care, which can lead to poorer outcomes for people in institutional settings and result in costly emergency department visits and hospitalizations.^{130 131 132} Accordingly, understaffing can reduce the cost-effectiveness of Medicaid institutional services.

In response to these concerns about the institutional workforce, we are proposing new Federal requirements that are intended to promote public transparency around States' statutory obligation under section 1902(a)(30)(A) of the Act and around the quality requirements in section 1932(c) of the Act for services furnished through managed care organizations (as well as for prepaid inpatient health plans (PIHPs) under our authority under section 1902(a)(4) of the Act), to make Medicaid payments that are sufficient to enlist enough providers so that quality LTSS are available to the beneficiaries who want and require such care. Specifically, we are proposing to add new Federal requirements that are intended to promote better understanding and transparency related to the percentages of Medicaid payments for nursing facility and ICF/IID services that are spent on

compensation to direct care workers and support staff. We note that this proposal is specific to nursing facility and ICF/IID services, which we at times may refer to collectively in this preamble as "institutional services." We also note that unlike in sections I. and II. of this proposed rule, we will not be referring to LTC facilities, as the term "LTC facility," for our purposes in this section, is both over-inclusive (because it can refer to both Medicare- and Medicaid-certified nursing facilities) and under-inclusive (because the term typically is not used to describe ICF/IIDs.)

We are focusing in this proposal on compensation because many direct care workers and support staff earn low wages and receive limited benefits.¹³³ Evidence suggests that there is a connection between wages and high rates of turnover among some workers in the institutional workforce.¹³⁴ However, we recognize that other factors, such as local labor market conditions, worker satisfaction, facility culture, and management practices, also play important roles in worker turnover and shortages.¹³⁵ Many of these other factors lie outside of our regulatory purview or the scope of this proposal. This proposal is centered on our authority under sections 1902(a)(4), 1902(a)(30), and 1932(c) of the Act to examine specific ways in which Medicaid payments in fee-for-service (FFS) and managed care delivery systems are allocated to support efficient, effective, and high-quality LTSS.

We are aware that some interested parties, including commenters who responded to the FY2023 SNF PPS RFI, have expressed concerns about whether some States' Medicaid rates have kept pace with rising labor costs.¹³⁶ We are

United States Government websites. We are providing these links because they contain additional information relevant to the topic(s) discussed in this document or that otherwise may be useful to the reader. We cannot attest to the accuracy of information provided on the cited third-party websites or any other linked third-party site. We are providing these links for reference only; linking to a non-United States Government website does not constitute an endorsement by CMS, HHS, or any of their employees of the sponsors or the information and/or any products presented on the website. Also, please be aware that the privacy protections generally provided by United States Government websites do not apply to third-party sites.

¹²⁷ Murray, Caitlin, Alena Tourtellotte, Debra Lipson, and Andrea Wysocki. *Medicaid Long Term Services and Supports Annual Expenditures Report: Federal Fiscal Year 2019*. Chicago, IL: Mathematica, December 9, 2021. Accessed at <https://www.medicaid.gov/medicaid/long-term-services-supports/downloads/ltssexpenditures2019.pdf>.

¹²⁸ Campbell, S., A. Del Rio Drake, R. Espinoza, K. Scales. 2021. *Caring for the future: The power and potential of America's direct care workforce*. Bronx, NY: PHI <http://phinational.org/wp-content/uploads/2021/01/Caring-for-the-Future-2021-PHI.pdf>.

¹²⁹ Centers for Medicare & Medicaid Services. November 2020. *Long-Term Services and Supports Rebalancing Toolkit*. Accessed at <https://www.medicaid.gov/medicaid/long-term-services-supports/downloads/lts-rebalancing-toolkit.pdf>.

¹³⁰ Ochieng, N., Chidambaram, P., Musumeci, M. *Nursing Facility Staffing Shortages During the COVID-19 Pandemic*. Apr 04, 2022. Kaiser Family Foundation. Accessed at <https://www.kff.org/coronavirus-covid-19/issue-brief/nursing-facility-staffing-shortages-during-the-covid-19-pandemic/>.

¹³¹ Harrington, C., Carrillo, H., Garfield, R., Squires, E. *Nursing Facilities, Staffing, Residents and Facility Deficiencies, 2009 Through 2016*. Apr 03, 2018. Kaiser Family Foundation. Accessed at <https://www.kff.org/report-section/nursing-facilities-staffing-residents-and-facility-deficiencies-2009-through-2016-staffing-levels/>.

¹³² Min A., Hong HC. Effect of nurse staffing on rehospitalizations and emergency department visits among short-stay nursing home residents: A Cross-sectional study using the US Nursing Home Compare database. *Geriatr Nurs*. 2019 Mar–Apr;40(2):160–165. doi: 10.1016/j.gerinurse.2018.09.010. Epub 2018 Oct 4. PMID: 30292528.

¹³³ Campbell, S., A. Del Rio Drake, R. Espinoza, K. Scales. 2021. *Caring for the future: The power and potential of America's direct care workforce*. Bronx, NY: PHI <http://phinational.org/wp-content/uploads/2021/01/Caring-for-the-Future-2021-PHI.pdf>.

¹³⁴ Sharma, H. and Liu, X. Association between wages and nursing staff turnover in Iowa. *Innov Aging*. 2022; 6(4): igac004. Published online 2022 Feb 5. doi: <https://academic.oup.com/crawl/prevention/governor/content=9%2ffinnovateage%2farticle%2fdoi%2f10.1093%2fgeron%2figac004%2f6522981>.

¹³⁵ See, for instance, the discussion of potential factors contributing to turnover of direct care nursing staff in: Zheng Q, Williams CS, Shulman ET, White AJ. Association between staff turnover and nursing home quality—evidence from Payroll Based journal data. *J Am Geriatr Soc*. 2022 Sep;70(9):2508–2516. doi: 10.1111/jgs.17843. Epub 2022 May 7. PMID: 35524769.

¹³⁶ Referring to the Request for Information released April 2022, included in Medicare Program; Prospective Payment System and Consolidated Billing for Skilled Nursing Facilities; Updates to the

also aware of the growing scrutiny of nursing facilities that have been purchased by companies such as private equity organizations, and evidence suggests that these business models have an impact on the quality of institutional care.¹³⁷ We do not intend through this proposal to express an opinion about amounts of States' expenditures on nursing facility and ICF/IID services, nor to comment on corporate organizational structures within the long-term care industry. As will be discussed in greater detail below, we are focusing in this proposal on data collection and transparency around the issue of compensation to direct care workers and support staff for some types of Medicaid-covered institutional services, not on proposing minimum reimbursement or payment standards for State Medicaid agencies or providers.

We also recognize that there are workforce challenges that may impact access to other Medicaid-covered services aside from institutional services. We are focusing in this proposed rule on addressing the workforce in certain institutional services. We are proposing to address HCBS workforce challenges outside of this rulemaking in the Ensuring Access to Medicaid Services proposed rule (88 FR 27960), published in the May 3, 2023 issue of the **Federal Register**. We will continue to assess the feasibility and potential impact of other possible actions to address workforce shortages in other parts of the health care sector.

B. Purpose and Statutory Basis

Title XIX of the Act established the Medicaid program as a joint Federal and State program to provide medical assistance to eligible individuals. Under the Medicaid program, each State that chooses to participate in the program and receive Federal financial participation (FFP) for program expenditures establishes eligibility standards, benefits packages, and

payment rates, and undertakes program administration in accordance with Federal statutory and regulatory requirements. The provisions of each State's Medicaid program are described in the Medicaid "State plan" and, as applicable, in documents related to a State's use of other authorities, such as demonstration projects and waivers of State plan requirements. Among other responsibilities, we approve State plans, State plan amendments, demonstration projects authorized under section 1115 of the Act, and waivers authorized under section 1915 of the Act; monitor activities; and review expenditures for compliance with Federal Medicaid law, including the requirements of section 1902(a)(30)(A) of the Act relating to efficiency, economy, quality of care, and access, to ensure that all applicable Federal requirements are met.

Section 1902(a)(30)(A) of the Act requires State Medicaid programs to ensure that payments to providers are consistent with efficiency, economy, and quality of care and are sufficient to enlist enough providers so that care and services are available to beneficiaries at least to the extent as to the general population in the same geographic area. High-quality institutional services require hands-on services delivered by direct care workers. In institutional settings, direct care workers provide a variety of services, including nursing services, assistance with activities of daily living (such as mobility, personal hygiene, and eating), therapies, and recreation. High-quality institutional services also require support staff who maintain the physical environment of the care facility or provide other services for residents (such as housekeeping, janitorial and environmental services, food preparation, and transportation.) We discuss our proposed definitions of direct care workers and support staff in more detail later in the next section.

Without a sufficient number of people joining or remaining in the direct care and support staff workforce, facilities may be less able to meet the care needs of their residents, whether due to understaffing or the hiring of workers without the appropriate training, expertise, or experience to deliver high-quality services and maintain the physical environment of the care facility. Insufficient numbers of qualified direct care workers and support staff can lead to poorer health outcomes and quality of life for people who need institutional services.^{138 139 140 141 142} Further, these

challenges can result in facility closures that in some cases result in residents being relocated to other facilities far from their friends and families, due to a lack of immediately-available alternative LTSS options in their geographical area or due to a lack of sufficient time to seek other options for care.¹⁴³ Therefore, as discussed in greater detail in the next section, we propose at § 442.43(b) to require that States report annually on the percent of payments claimed by the State for Medicaid-covered services delivered by nursing facilities and ICF/IIDs that are spent on compensation to direct care workers and support staff. As discussed later in this section, this proposal is intended to promote transparency around compensation for direct care workers and support staff. We believe that gathering and sharing data about the amount of Medicaid dollars that are going to the compensation of workers is a critical step in the larger effort to understand the ways we can enact policies that support the institutional care workforce and thereby help advance access to high quality care for Medicaid beneficiaries.

Section 1902(a)(6) of the Act requires State Medicaid agencies to make such reports, in such form and containing such information, as the Secretary may from time to time require, and to

and potential of America's direct care workforce. Bronx, NY: PHI <http://phinational.org/wp-content/uploads/2021/01/Caring-for-the-Future-2021-PHI.pdf>.

¹³⁹ Yaa Akosa Antwi and John R. Bowblis. The Impact of Nurse Turnover on Quality of Care and Mortality in Nursing Homes: Evidence from the Great Recession. Upjohn Institute Working Paper 16–249. January 2016. Accessed at [https://research.upjohn.org/cgi/viewcontent.cgi?article=1267&context=up_workingpapers#:~:text=Turnover%20in%20health%20facilities%20reduces,health%20outcomes%20\(Thomas%20et%20al](https://research.upjohn.org/cgi/viewcontent.cgi?article=1267&context=up_workingpapers#:~:text=Turnover%20in%20health%20facilities%20reduces,health%20outcomes%20(Thomas%20et%20al).

¹⁴⁰ Zheng Q, Williams CS, Shulman ET, White AJ. Association between staff turnover and nursing home quality—evidence from Payroll Based journal data. *J Am Geriatr Soc*. 2022 Sep;70(9):2508–2516. doi: 10.1111/jgs.17843. Epub 2022 May 7. PMID: 35524769.

¹⁴¹ Harrington, C., Carrillo, H., Garfield, R., Squires, E. Nursing Facilities, Staffing, Residents and Facility Deficiencies, 2009 Through 2016. Apr 03, 2018. Kaiser Family Foundation. Accessed at <https://www.kff.org/report-section/nursing-facilities-staffing-residents-and-facility-deficiencies-2009-through-2016-staffing-levels/>.

¹⁴² Min A, Hong HC. Effect of nurse staffing on rehospitalizations and emergency department visits among short-stay nursing home residents: A Cross-sectional study using the US Nursing Home Compare database. *Geriatr Nurs*. 2019 Mar–Apr;40(2):160–165. doi: 10.1016/j.gerinurse.2018.09.010. Epub 2018 Oct 4. PMID: 30292528.

¹⁴³ Holder, J., & Jolley, D. (2012). Forced relocation between nursing homes: Residents' health outcomes and potential moderators. *Reviews in Clinical Gerontology*, 22(4), 301–319. doi:10.1017/S0959259812000147.

Quality Reporting Program and Value-Based Purchasing Program for Federal Fiscal Year 2023; Request for Information on Revising the Requirements for Long-Term Care Facilities To Establish Mandatory Minimum Staffing Levels. A proposed rule by the Centers for Medicare & Medicaid Services on 04/15/2022 <https://www.federalregister.gov/documents/2022/04/15/2022-07906/medicare-program-prospective-payment-system-and-consolidated-billing-for-skilled-nursing-facilities>.

¹³⁷ Centers for Medicare & Medicaid Services. February 13, 2023. Biden-Harris Administration Continues Unprecedented Efforts to Increase Transparency of Nursing Home Ownership. Accessed at <https://www.cms.gov/newsroom/press-releases/biden-harris-administration-continues-unprecedented-efforts-increase-transparency-nursing-home>.

¹³⁸ Campbell, S., A. Del Rio Drake, R. Espinoza, K. Scales. 2021. Caring for the future: The power

comply with such provisions as the Secretary may from time to time find necessary to assure the correctness and verification of such reports. Under our authority at section 1902(a)(6) of the Act, and consistent with section 1902(a)(30)(A) of the Act, we propose to newly require that State Medicaid agencies report, at the facility level, on the portion of payments for nursing facility and ICF/IID services that are spent on compensation for the direct care and support staff workforce.¹⁴⁴ While some States have voluntarily established similar transparency policies or initiatives, we believe a Federal requirement is necessary and would be more effective to generate more meaningful and comparable data and support transparency nationwide.

We find no basis for applying these proposed requirements only when States' LTSS delivery systems are FFS, and thus for the same reasons we are proposing them for FFS delivery systems, we are also proposing to apply them when LTSS systems are covered through managed care. For States that contract with MCOs and PIHPs to cover services delivered by nursing facilities and ICF/IIDs, we propose that States report annually on the percent of payments made to nursing facilities and ICF/IIDs that is spent for compensation to direct care workers and support staff. Section 1932(c) of the Act lays out quality assurance standards with which States must comply when delivering Medicaid services through managed care organizations. Including services delivered by managed care organizations is authorized under section 1932(c), which requires the Secretary to both monitor States and consult with States on strategies to ensure quality of care. Additionally, based on our authority under section 1902(a)(4) of the Act to specify "methods of administration" that are "necessary for proper and efficient" administration of the State plan, we also propose to include prepaid inpatient health plans (PIHPs) in this proposed rule. Again, we see no basis for excluding services furnished through a PIHP from the proposed requirements; throughout this document, the use of the term "managed care plan" means MCOs and PIHPs and is used only when the discussion applies to both arrangements.

This proposal is intended to promote transparency around compensation for direct care workers and support staff.

We believe that gathering and sharing data about the amount of Medicaid dollars that are going to the compensation of workers is a critical step in the larger effort to understand the ways we can enact policies that support the institutional care workforce, which plays an essential part in the economy, efficiency, and quality of institutional services. We believe that compensation levels are a factor in the creation of a stable workforce, and that a stable workforce will result in better qualified employees, lower turnover, and safer and higher quality care.^{145 146} If individuals are attracted to the institutional LTSS workforce and incentivized to remain employed in it, the workforce is more likely to be comprised of workers with the training, expertise, and experience to meet the diverse and often complex needs of individuals with disabilities and older adults residing in institutions. A stable and qualified workforce will also enable beneficiaries to access providers of the services they have been assessed to need.

As we discuss below, we are not proposing a minimum percentage of Medicaid payments for nursing facility services and ICF/IID services that must be spent on compensation to direct care workers and support staff. We do not have adequate information at this time to determine such a minimum percentage, nor what impact requiring a minimum percentage would have on Medicaid institutional payments. We are aware that data collected from nursing facilities as part of the PBJ reporting program in § 483.70(q) provides the potential to begin extrapolating information about the relationships between staffing hours and staff compensation in nursing facilities that serve Medicaid residents.¹⁴⁷ We also understand that the variability among States' Medicaid institutional payment rate methodologies and

payment rates presents challenges to national studies on issues related to staffing and compensation. In addition, we note that, because there are comparatively fewer reporting requirements for ICF/IIDs than there are for nursing facilities, there is a need for greater data and transparency on the workforce in these facilities. We view this proposed transparency requirement as a necessary step in gathering and making publicly available more information about Medicaid institutional payments that can aid in further analyses, which in turn can inform future policy development and potential rulemaking. Please refer to the discussion in section IV. (Collection of Information) of this proposed rule where we discuss in greater detail the specifics of the activities and resources we anticipate would be required from States, managed care plans, and providers to implement and comply with these proposed requirements.

We also note that while aspects of this proposal are intended to complement the goals expressed in section II of this preamble, the following proposals presented below would be, if finalized, distinct provisions. To the extent a court may enjoin any part of a final rule, the Department intends that other provisions or parts of provisions should remain in effect. Should they be finalized, we intend that any provision of the proposals described in this section or in another section held to be invalid or unenforceable by its terms, or as applied to any person or circumstance, would be construed so as to continue to give maximum effect to the provision permitted by law, unless such holding is one of utter invalidity or unenforceability, in which event we intend that the provision would be severable from the other finalized provisions described in this section and in other sections and would not affect the remainder thereof or the application of the provision to persons not similarly situated or to dissimilar circumstances

C. Proposed Provisions

We are proposing to create a new provision, § 442.43, which would specify requirements for States to report on compensation for direct care workers and support staff as a percentage of Medicaid payments for nursing facility and ICF/IID services. At § 442.43(a)(1), we propose to define compensation to include salary, wages, and other remuneration as defined by the Fair Labor Standards Act and implementing regulations (29 U.S.C. 201 *et seq.*, 29 CFR parts 531 and 778), and benefits (such as health and dental benefits, sick leave, and tuition reimbursement). In

¹⁴⁴ Throughout this discussion, we use the term "States" to include all States, Washington, DC, and the territories that include nursing facility services or ICF/IID services in their State plans.

¹⁴⁵ See, for example, the discussion of low wages among direct care workers in Campbell, S., A. Del Rio Drake, R. Espinoza, K. Scales. 2021. *Caring for the future: The power and potential of America's direct care workforce*. Bronx, NY: PHI <http://phinational.org/wp-content/uploads/2021/01/Caring-for-the-Future-2021-PHI.pdf>.

¹⁴⁶ See, for example, the discussion of the relationship between staff turnover and nursing home quality in Zheng Q, Williams CS, Shulman ET, White AJ. Association between staff turnover and nursing home quality—evidence from Payroll Based journal data. *J Am Geriatr Soc*. 2022 Sep;70(9):2508–2516. doi: 10.1111/jgs.17843. Epub 2022 May 7. PMID: 35524769.

¹⁴⁷ See, for example, the use of Payroll Based Journal data to analyze staffing hours and compensation in Bowblis, J., Brunt, C., Xu, H., and Grabowski, D. Understanding Nursing Home Spending And Staff Levels In The Context Of Recent Nursing Staff Recommendations. *Health Affairs*. 2022;42(2) 197–206.

addition, we propose to define compensation to include the employer share of payroll taxes for direct care workers and support staff delivering Medicaid-covered nursing facility and ICF/IID services (which, while not necessarily paid directly to the workers, is paid on their behalf). We considered whether to include training or other costs in our proposed definition of compensation. However, we believe that a definition that more directly addresses the financial benefits to workers would better measure the portion of the payment for services that went to direct care workers and support staff, as it is unclear that the cost of training and other workforce activities is an appropriate way to quantify the benefit of those activities for workers. We are also concerned that requesting providers to quantify and include costs of non-financial benefits in their reporting would prove burdensome and could introduce a lack of uniformity in determining and reporting related costs. We request comment on our proposed definition of compensation, particularly whether the definition of compensation should include other specific financial and non-financial forms of compensation for the workers included in these proposed provisions.

At § 442.43(a)(2), for the purposes of the proposed reporting provision at § 442.43(b), we propose to define direct care workers to include: nurses (registered nurses, licensed practical nurses, nurse practitioners, or clinical nurse specialists) who provide nursing services to Medicaid-eligible individuals receiving nursing facility and ICF/IID services; certified nurse aides who provide such services under the supervision of one of the foregoing nurse provider types; licensed physical therapists, occupational therapists, speech-language pathologists, and respiratory therapists; certified physical therapy assistants, occupational therapy assistants, speech-language therapy assistants, and respiratory therapy assistants or technicians; social workers; personal care aides; medication assistants, aides, and technicians; feeding assistants; activities staff; and other individuals who are paid to provide clinical services, behavioral supports, active treatment (as defined at § 483.440¹⁴⁸), or address activities of daily living (such as those described in § 483.24(b), which includes activities related to mobility, personal hygiene, eating, elimination, and communication), for individuals

receiving Medicaid-covered nursing facility and ICF/IID services. Our proposed definition of direct care worker is intended to broadly define such workers to ensure that the definition appropriately captures the diversity of roles and titles that direct care workers may have.

We recognize that our proposed definition of direct care worker differs from the definition of direct care staff at § 483.70(q)(1), which was established for the PBJ reporting program at § 483.70(q). The PBJ reporting program requires that LTC facilities report on the staffing hours of specified direct care staff (but does not require reporting on the compensation for direct care staff). In particular, our proposed definition does not include administrators (or staff whose primary function is administrative or supervisory), nor do we propose to include physicians or physician assistants. This difference is intentional as we are more closely aligning our proposed definition of direct care worker with the definition of direct care worker for a similar provision focused on HCBS in the Ensuring Access to Medicaid Services proposed rule (88 FR 27960), published in the May 3, 2023 issue of the **Federal Register**. We believe that closer alignment of the definition in this proposed rule with the definition in the Ensuring Access to Medicaid Services proposed rule would help to provide a more consistent picture of the direct care workforce for individuals receiving Medicaid-covered LTSS across settings. We also believe that this may reduce State reporting burden. Additionally, we believe the definition of direct care workers proposed in this rule represents a subset of the categories of direct care staff that nursing facilities are already familiar with as part of the PBJ reporting requirement.¹⁴⁹ Further, we note that ICF/IIDs are currently not required to participate in the PBJ reporting, and thus, we do not expect them to be affected by the definition of direct care staff at § 483.70(q)(1).

We request feedback on our proposed definition of direct care worker at § 442.43(a)(2). We specifically request whether there are categories of staff we should add to, or remove from, our proposed definition. Additionally, we are particularly interested in ensuring that this provision includes staff who can be instrumental in helping residents

achieve the level of health or develop skills needed to transition from nursing facilities back into the community, assess residents for readiness for transition, and support in discharge planning. We request feedback from the public as to whether our proposed definition appropriately includes workers who provide these services, or if we would need to include such staff as a distinct category of staff within this provision. We also request comment on whether we should adopt the definition of direct care staff at § 483.70(q)(1), instead of our proposed definition of direct care worker. If commenters support adopting the definition of § 483.70(q)(1), we request that they also provide information on whether this definition would include the staff who help residents achieve the level of health or develop the skills needed to transition from nursing facilities back into the community, assess residents for readiness for transition, and support in discharge planning, or if these staff would still need to be specified as a separate category.

We also propose in § 442.43(a)(2) to define direct care workers to include individuals employed by or contracted or subcontracted with a Medicaid provider or State or local government agency. This proposal is in recognition of the varied ownership and employment relationships that can exist in Medicaid institutional services. For instance, differences may include: institutions that are privately owned and operated or facilities owned and operated by a local or State government; facilities that are partially or wholly staffed through a third-party staffing organization through a contractual arrangement; or staff who are employed directly or as independent contractors. We solicit comment on whether this component of our proposed definition adequately captures the universe of potential employment or contractual relationships between institutional facilities and relevant direct care workers.

At § 442.43(a)(3), for the purposes of the proposed reporting requirement at § 442.43(b), we propose to define support staff to include individuals who are not direct care workers and who maintain the physical environment of the care facility or support other services (such as cooking or housekeeping) for residents. Similar to our proposed definition of direct care worker, our proposed definition of support staff is intended to broadly define such workers to ensure that the definition appropriately captures the diversity of roles and titles that such workers may have. Specifically, we

¹⁴⁹ Centers for Medicare & Medicaid Services, Electronic Staffing Data Submission Payroll Based Journal: Long-Term Care Facility Policy Manual. <https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/NursingHomeQualityInits/Downloads/PBJ-Policy-Manual-Final-V25-11-19-2018.pdf>.

¹⁴⁸ Active treatment services, as defined in 42 CFR 483.440, are services required in ICF/IIDs as part of their Medicaid Conditions of Participation.

propose to define support staff to include: housekeepers; janitors and environmental services workers; groundskeepers; food service and dietary workers; drivers responsible for transporting residents; and any other individuals who are not direct care workers and who maintain the physical environment of the care facility or support other services for individuals receiving Medicaid-covered nursing facility and ICF/IID services. We request comment on whether there are other specific types of workers, such as security guards, who should be included in the definition. We are also soliciting comment on whether any of the types of workers listed in this proposal should be excluded from the definition of support staff. We also request comment, generally, on our proposal to include support staff in this proposed reporting requirement.

We propose to define support staff to include individuals employed by or contracted or subcontracted with a Medicaid provider or State or local government agency. Similar to our discussion of the proposed definition of direct care worker in § 442.43(a)(2), our intention with this proposal is to recognize the varied employment relationships that can exist in Medicaid institutional services, including the use of third-party employers. (For instance, a facility may contract with a third-party transportation company to provide transportation services to residents.) We solicit comment on whether this component of our proposed definition adequately captures the universe of potential employment or contractual relationships between institutional facilities and relevant support staff.

Based on our authority at sections 1902(a)(6) and (a)(30)(A) of the Act with respect to FFS, and sections 1902(a)(4) and 1932(c) of the Act with respect to managed care plans, we are proposing new reporting requirements at § 442.43(b) to require States to report annually, by delivery system (if applicable) and by facility, on the percent of Medicaid payments for nursing facility and ICF/IID services that is spent on compensation for direct care workers and on compensation for support staff, at the time and in the form and manner specified by CMS. We believe that this information would help identify national trends and would also help States identify facilities that appear to be outliers in terms of the amount of Medicaid payment going to direct care worker and support staff compensation. We believe that contextualizing direct care worker and support staff compensation information in this manner would help States understand

whether current payment rates for nursing facility and ICF/IID services are consistent with economy, efficiency, and quality, and sufficient to ensure meaningful beneficiary access.

We are proposing that the reporting to CMS would be for all Medicaid payments made to nursing facility and ICF/IID providers. For FFS payments, this would include base payments and supplemental payments for nursing facility and ICF/IID services. We note that for FFS base and supplemental payments, we are relying on the definition of “supplemental payments” provided in section 1903(bb)(2) of the Act, which defines supplemental payments as Medicaid payments to a provider that are in addition to any base payment made to providers under the State plan or under demonstration authority. As discussed in guidance released in 2021, we interpret “base payment” (as used in the definition of “supplemental payment” in section 1903(bb)(2)(A) of the Act), to refer to a standard payment to the provider on a per-claim basis for services rendered to a Medicaid beneficiary in an FFS environment. The base payment can include: (1) any payment adjustments; (2) any add-ons; and/or (3) any other additional payments received by the provider that can be attributed to services identifiable as having been provided to an individual beneficiary, including those that are made to account for a higher level of care, complexity, or intensity of services provided to an individual beneficiary.¹⁵⁰

We are proposing that States report on FFS base and supplemental payments made to facilities because we believe this would provide a comprehensive picture of Medicaid FFS payments made for these services. However, we recognize that, given the variability in both base and supplemental payments across (and even within) States, there may be value in understanding the percent of the base payments alone that is going to compensation for direct care workers and support staff. We solicit comment on whether, for FFS payments, we should instead request reporting on only the percent of base payments spent on such compensation, or separate reporting on the percent of base payments and on the percent of aggregated payments (base plus

supplemental payments) spent on such compensation.

We also propose at § 442.43(b) that for States that contract with MCOs and/or PIHPs to cover services delivered by nursing facilities and/or ICF/IIDs, that States report on the percent of payments made by the MCO or PIHP to nursing facilities and ICF/IIDs that is spent for compensation to direct care workers and support staff. For these managed care plans, payments would include the managed care plan’s contractually negotiated rate, State directed payments defined in § 438.6(a), pass-through payments defined in § 438.6(a) for nursing facilities, and any other payments from the MCO or PIHP to the nursing facility or ICF/IID. We are also proposing to require that States, if they deliver the relevant services through both FFS and managed care, they report separately for each delivery system.

We note that we are proposing that the reporting be performed annually. We solicit comment on this timeframe. We request comment on whether annual reporting is reasonable, or if we should reduce the frequency of reporting to every other year or every 3 years.

We propose at § 442.43(b)(1) to require this reporting for payments, including FFS base and supplemental payments and payments from managed care plans, to nursing facilities and ICF/IIDs for Medicaid-covered services, with the exception of services offered in swing bed hospitals (as described in § 440.40(a)(1)(ii)(B)). We are proposing to exclude swing bed hospitals, as we do not want to pose a burden on rural hospitals that provide LTSS to a comparatively small number of beneficiaries. We welcome comment on this proposal.

At § 442.43(b)(2), we propose that States exclude from the reporting payments for which Medicaid is not the primary payer. If finalized, this would mean that States would exclude Medicaid payments to cover only cost-sharing payments on behalf of residents who are dually eligible for Medicare and Medicaid and whose skilled nursing care services are paid for by Medicare. We are proposing this exclusion for two reasons. The first is that, given that facilities (particularly nursing facilities) receive revenue from sources other than Medicaid, we wish to reiterate that this reporting is limited to only the percent of Medicaid payments going to compensation for direct care workers and support staff (and thus would not include Medicare or private payments). The second reason for this exclusion is that the goal of this reporting, as discussed throughout this preamble, is to collect data demonstrating the

¹⁵⁰ Centers for Medicare & Medicaid Services, State Medicaid Directors Letter # 21–006, New Supplemental Payment Reporting and Medicaid Disproportionate Share Hospital Requirements under the Consolidated Appropriations Act, 2021, December 10, 2021. <https://www.medicaid.gov/federal-policy-guidance/downloads/smd21006.pdf>.

relationship between Medicaid payments for nursing facility and ICF/IID services and the wages paid to direct care workers and support staff. We believe that including cost-sharing payments for services that were primarily paid for by Medicare is outside the scope of this data collection. However, we solicit feedback from the public on whether including cost-sharing payments for services that were primarily paid for by Medicare would provide a more accurate picture of the relationship between Medicaid payments and worker compensation. We also request comment on whether excluding cost-sharing payments would increase or decrease burden on States and providers.

We also note that we are not proposing to exclude beneficiary contributions to their care when Medicaid is the primary payer of the services. For FFS programs, base payments included in the reporting should be representative of the total payment amount a provider would expect to receive as payment-in-full for the provision of Medicaid services to individual beneficiaries. (We note that § 447.15 defines payment-in-full as “the amounts paid by the agency plus any deductible, coinsurance or copayment required by the plan to be paid by the individual.”) For managed care delivery systems, although the term “payment-in-full” as defined at § 447.15 is not applicable, for consistency between FFS and managed care delivery systems, any deductible, coinsurance or copayment required to be paid by the individual would similarly be included in the total amount used to determine the percent of Medicaid payments for nursing facility and ICF/IID services that is spent on compensation for direct care workers and support staff. Therefore, we believe the rate used for comparison should be inclusive of total payment from the Medicaid agency, MCO, or PIHP plus any applicable coinsurance, copayments and deductibles, to the extent that a beneficiary is expected to be liable for those payments. We note that this understanding helps promote consistency with a proposal regarding payment reporting in the Ensuring Access to Medicaid Services proposed rule (see, in particular, the discussion at 88 FR 28012). We welcome feedback on whether commenters believe beneficiary contributions should be excluded.

We considered whether to allow States, at their option, to exclude from their reporting payments to providers that have low Medicaid revenues or serve a small number of Medicaid beneficiaries, based on Medicaid revenues for the service, the number of

Medicaid beneficiaries receiving the service, or other Medicaid utilization data including but not limited to Medicaid bed days. We considered this option as a way to reduce State, managed care plan, and provider data collection and reporting burden based on the experience of States that have implemented similar reporting requirements. However, we are concerned that such an option could discourage providers from serving Medicaid beneficiaries or increasing the number of Medicaid beneficiaries served. We request comment on whether we should allow States the option to exclude, from their reporting to us, payments to providers that have low Medicaid revenues or serve a small number of Medicaid beneficiaries, based on Medicaid revenues for the service, the number of Medicaid beneficiaries receiving the service, or other Medicaid utilization data including but not limited to Medicaid bed days. We also request comment on whether we should establish a specific limit on such an exclusion and, if so, the specific limit we should establish, such as to limit the exclusion to providers in the lowest 5th, 10th, 15th, or 20th percentile of providers in terms of Medicaid revenues for the service, number of Medicaid beneficiaries served, or other Medicaid utilization data (including but not limited to Medicaid bed days.)

At § 442.43(c)(1), we propose that the reporting must provide information necessary to identify, at the facility level, the percent of Medicaid payments spent on compensation to: direct care workers at each nursing facility, support staff at each nursing facility, direct care workers at each ICF/IID, and support staff at each ICF/IID. We anticipate that States and providers would be able to obtain the information needed to calculate the percent of Medicaid payments made to direct care workers and support staff using data used in rate setting, internal wage information, cost reports, and resident census numbers (which would indicate the number of days residents had Medicaid-covered stays during the year.) However, we solicit comment on our proposal that information be reported at the facility level, particularly on any concerns about potential burden on providers and States.

In constructing this proposal, we sought to balance the need for useful data with burden on States and providers, and we do not want to request more information than is necessary to get basic insight into the relationship between Medicaid payments and direct worker and support staff compensation. To that end,

we are proposing to include in the reporting requirement the percentages of Medicaid payments to each nursing facility or ICF/IID that are going towards compensation to direct care workers and support staff at those facilities. However, we would consider adding to the proposed reporting requirements additional elements for States to report on median hourly compensation for direct care workers and median hourly compensation for support staff, in addition to the percent of Medicaid payments going to overall compensation for these workers. If commenters believe reporting on median compensation would yield useful information, we request that commenters also provide feedback on whether the reporting should be on salary/wages, or on total compensation (salary/wages and other remuneration, including employer expenditures for benefits and payroll taxes), and whether the information should be calculated for all direct care workers and for all support staff, or further broken down by the staff categories specified in our proposal at § 442.43(a)(2) and (3).

At § 442.43(c)(2), we propose that States must report the information required at § 442.43(c)(1) (the percent of Medicaid payment going to compensation for direct care workers and support staff and, if added to the provision, median hourly wages) according to a methodology that we provide. We believe it is important to have States use a consistent methodology when collecting and reporting information from facilities. If this proposal is finalized, we would specify a reporting methodology as part of the reporting instrument, which would be submitted separately for formal public comment under the processes set forth by the Paperwork Reduction Act. We are not proposing to codify a specific reporting methodology to allow for increased flexibility to refine and adapt the reporting methodology as States and CMS gain experience with the process. At this time, we solicit initial suggestions for an appropriate methodology for identifying the percentage of Medicaid payment that has gone to direct care worker and support staff compensation (noting that the underlying elements of the methodology could change should any final reporting requirements change in response to comments received on this proposed rule). We also solicit initial suggestions whether separate methodologies would be appropriate for base payments and supplemental payments, and if so, suggestions for each. Commenters who support adding

a requirement to report median hourly wages are also welcome to provide suggestions for a methodology for those calculations.

To support our goal of transparency, we are considering adding a provision requiring that States make publicly available information about the underlying FFS payment rates themselves for nursing facility and ICF/IID services. We believe it is likely that being able to view the reported information (percent of Medicaid payments going to compensation for direct care workers and support staff and, if added to the provisions, the median hourly wages) might be more meaningful if interested parties could review this data with the added context of information about typical nursing facility and ICF/IID FFS per diem payments in those States that use a FFS delivery model for these services. While we approve States' FFS methodologies for setting the rates for nursing facility and ICF/IID services as part of the State plan amendment process, we do not currently require States to report the rates for these services. Further, the amounts can change over time without further State plan review according to the CMS-approved rate methodology (for example, when the State plan rate methodology is based on Medicare rates for services and not a fixed fee schedule). We have also heard from interested parties that members of the public would be interested in comparing the per diem rates nationally. Additionally, we have heard from providers that, as Medicaid payments to individual facilities may vary due to differences in acuity, add-on payments, or other factors, providers would be interested in comparing their own Medicaid revenues against an average or typical per diem rate in their State. We are considering adding to the proposed reporting provisions a requirement that, as applicable, States report a single average statewide FFS per diem rate (one reported rate for nursing facility services and one reported rate for ICF/IID services.) If commenters agree that this information should be added to the reporting requirements, we request comment on whether the reported average should be the average of only the per diem base payment rates, or the average of the per diem base payment rates plus supplemental payments. We are weighing both options, as reporting on the average of the per diem base payment rate (without including supplemental payments) would provide an average that is more representative of the "typical" per diem rate (since not all facilities necessarily receive

supplemental payments.) On the other hand, an average that includes both the per diem base payment rate and supplemental payments would provide a more complete picture of the total Medicaid spending on these services. We request comment on which option interested parties believe would provide the most useful snapshot of payment for these services.

We do note that in the Ensuring Access to Medicaid Services proposed rule (88 FR 27960), we are proposing at § 447.203(b)(1) that States publish all Medicaid FFS rates. This new proposed process would require States to publish their FFS Medicaid base payment rates in a clearly accessible, public location on the State's website. In § 447.203(b)(2) and (3) of the Ensuring Access to Medicaid Services proposed rule, we proposed that States would be required to conduct a comparative payment rate analysis between the States' Medicaid payment rates and Medicare rates for certain services, and provide a payment rate disclosure for certain HCBS that would include an average hourly rate for those specified HCBS.

We believe that the proposal we are considering here is both complementary to, and distinguishable from, the proposals in the Ensuring Access to Medicaid Services proposed rule. The payment rate transparency proposal in the Ensuring Access to Medicaid Services proposed rule at § 447.203(b)(1), while comprehensive, would request specifically payment rates made to providers delivering Medicaid services to Medicaid beneficiaries through the FFS delivery model. To the extent rates are bundled, we are proposing publication of unbundled rates by constituent service. This is distinct from the proposal in this proposed rule, which is proposing to examine per diem rates, solely in nursing facilities and ICF/IID. A per diem rate is akin to a bundled rate and typically is not reflective of the cost of an individual service; as such, the proposals generally would examine different payment rates. Additionally, the comparative payment rate analysis proposed in the Ensuring Access to Medicaid Services proposed rule at § 447.203(b)(2) focuses on comparing to Medicare rates for specified services, which is not an element included in this proposal. Finally, the proposal in the Ensuring Access to Medicaid Services proposed rule at § 447.203(b)(3) that would require disclosure of hourly payment rates is for HCBS and would therefore not overlap with nursing facility and ICF/IID services.

We also note that this potential reporting requirement would only be for

FFS systems. For managed care programs, we are not considering requiring the public reporting of the contractually negotiated rates for individual providers.

We considered whether to propose a requirement that a minimum percentage of all Medicaid payments, including but not limited to base payments and supplemental payments, with respect to Medicaid-covered nursing facility services and ICF/IID services be spent on compensation to direct care workers and support staff. However, we do not have adequate information at this time to determine a minimum percentage of the payments for Medicaid-covered nursing facility services and ICF/IID services that should be spent on compensation for direct care workers and support staff. In consideration of potential future rulemaking, we request comment on whether we should require that a minimum percentage of the payments for Medicaid-covered nursing facility services and ICF/IID services be spent on compensation for direct care workers and support staff. We also request comment on whether such a requirement would be necessary to ensure that payment rates and methodologies are economic and efficient and consistent with meaningful beneficiary access to safe, high-quality care, or otherwise necessary for the proper and efficient operation of the State plan. Additionally, we request suggestions on the specific minimum percentage of payments for Medicaid-covered nursing facility services and ICF/IID services that should be required to be spent on compensation to direct care workers and support staff. If a minimum percentage is recommended, we request that commenters provide separate recommendations for nursing facility services and ICF/IID services and the rationale for each such minimum percentage that is recommended. We request that commenters provide data or evidence to support such recommendations, which we will review as part of our consideration of policy and rulemaking options.

Based on our authority in sections 1902(a)(6) and 1902(a)(30)(A) of the Act with respect to FFS, and sections 1902(a)(4) and 1932(c) of the Act with respect to managed care plans, we are proposing new requirements to promote public transparency related to the administration of Medicaid-covered institutional services. We believe that promoting public transparency is an important first step for holding States accountable for ensuring that Medicaid payments are used in a way that is efficient and economic, to provide a

foundation for future analyses of whether the payments are sufficient to enlist enough providers so that quality LTSS are available to the beneficiaries who want and require such care. Feedback from interested parties during various public engagement activities over the past several years has indicated that States do not routinely make publicly available information on the percent of payments that are going to the workforce, specifically. As a result, we believe that the proposal described immediately below is needed to support the efficient administration of Medicaid coverage of nursing facility and ICF/IID services by promoting public transparency and accountability related to the percent of payments for such services that goes to compensation to direct care workers and support staff.

Specifically, at § 442.43(d), we propose to require States to operate a website that meets the availability and accessibility requirements at § 435.905(b) of this chapter and that provides the results of the newly proposed reporting requirements in § 442.43(b). We request comment on whether the proposed requirements at § 435.905(b) are adequate to ensure the availability and the accessibility of the information for people receiving LTSS and other interested parties. We note that the accessibility and availability requirements set forth in § 435.905(b) focus on whether the language used on a website is accessible to computer users with disabilities or limited English proficiency. Other accessibility considerations, including the labelling of website links, ensuring the website content is up-to-date, or providing specific information about how users may access assistance are addressed in subsequent proposals below.

At § 442.43(d)(1), we propose to require that the data and information that States are required to report in § 442.43(b) be provided on one website, either directly or by linking to relevant information on the websites of the managed care plan that is contracted to cover nursing facility or ICF/IID services. We intend for the States to be ultimately responsible for ensuring compliance with the proposal, including to ensure through contractual arrangements with managed care plans, as applicable, that the proposed requirements are satisfied when required information is provided on websites maintained by these plans. Proposed § 442.43(d) contemplates that some States that provide nursing facility or ICF/IID services through managed care may decide to work with their managed care plans to make the reporting information available on the

managed care plans' websites, rather than replicating the information directly on the State's website. We request comment on whether States should be permitted to link to websites of these managed care plans, and if so, whether we should limit the number of separate websites that a State could link to in place of directly reporting the information on its own website; or whether we should require that all the required information be posted directly on a website maintained by the State.

At § 442.43(d)(2), we propose to require that the website include clear and easy to understand labels on documents and links. At § 442.43(d)(3), we propose to require that States verify the accurate function of the website and the timeliness of the information and links at least quarterly. We note here that the intent of § 442.43(d)(3) is to require that States ensure that the reporting information on their own website is up to date. We would also expect, if the State is linking to a managed care plan website, that the State ensure on at least a quarterly basis that the links are operational and continue to link to the information States are required to report in § 442.43(b). We are not proposing to direct that managed care plans must also review their websites quarterly, but rather we expect that States would develop a process with their managed care plans to ensure that any reporting information contained on a managed care plan website is timely and accurate. If a State obtains information that a managed care plan website to which the State links as a means of publishing the required reporting information is not being maintained with timely updates for ongoing accuracy, we expect that the State would work with the relevant managed care plan to correct the situation and, if unsuccessful, would cease linking to that managed care plan's website and would begin to post the required reporting information on a State-maintained website. We request comment on this proposal, including whether this timeframe for website review is sufficient or if we should require a shorter timeframe (monthly) or a longer timeframe (semi-annually or annually).

At § 442.43(d)(4), we propose to require that States include prominent language on the website explaining that assistance in accessing the required information on the website is available at no cost to the public and include information on the availability of oral interpretation in all languages and written translation available in each non-English language, how to request auxiliary aids and services, and a toll-

free and TTY/TDY telephone number. We request comment on whether these requirements are sufficient to ensure the accessibility of the information for people receiving nursing facility or ICF/IID services and other interested parties.

We are also proposing at § 442.43(e) that we must report on our website (Medicaid.gov or a successor website) the information reported by States to us under § 442.43(b). Specifically, we envision that we would update our website to provide information reported by each State on the percent of payments for Medicaid-covered services delivered by nursing facilities and ICF/IIDs that is spent on compensation to direct care workers and support staff (and, if added to the provision, information on median hourly wages) which would allow the information to be compared across States and providers. We also envision using data from State reporting in future iterations of the CMS Medicaid and CHIP Scorecard.¹⁵¹ We note that if, based on public comment, we add a requirement that States provide information about their payment rates for nursing facility and ICF/IID services, we would provide this information on our website as a way of providing easy-to-find context for the other payment information reported by States. We currently do not intend to include the information on payment rates in the CMS Medicaid and CHIP Scorecard.

We recognize that many States may need time to implement these requirements, including to amend provider agreements or managed care contracts, make State regulatory or policy changes, implement process or procedural changes, update information systems for data collection and reporting, or conduct other activities to implement these proposed payment transparency reporting requirements. We also expect that it would take a substantial amount of time for managed care plans and providers to establish the necessary systems, data collection tools, and processes necessary to collect the required information to report to States. As a result, we are proposing, at § 442.43(f), to provide States with 4 years to implement these requirements in FFS delivery systems following the effective date of the final rule. This proposed timeline reflects feedback from States and other interested parties that it could take 3 to 4 years for States to complete any necessary work to amend State regulations, policies, operational processes, information

¹⁵¹ CMS's Medicaid and CHIP Scorecard. Accessed at <https://www.medicicaid.gov/state-overviews/scorecard/index.html>.

systems, and contracts to support implementation of the proposals outlined in this section. We invite comments on whether this timeframe is sufficient, whether we should require a shorter or longer timeframe (such as 3 or 5 years) to implement these provisions, and if a shorter or longer timeframe is recommended, the rationale for that shorter or longer timeframe.

In the context of Medicaid coverage of nursing facility and ICF/IID services, we believe that the foregoing reasons for the reporting requirements proposed in this rule apply to the delivery of these services regardless of whether they are covered directly by the State on an FFS basis or by a managed care plan for its enrollees. Accordingly, we are proposing to apply the requirements at § 442.43 to both FFS and managed care delivery systems through incorporation by reference in a new regulation in 42 CFR part 438, which generally governs Medicaid managed care programs. Specifically, we propose to add a cross-reference to the requirements in proposed § 438.72(a) to be explicit that States that include nursing facility and/or ICF/IID services in their MCO or PIHP contracts would have to amend their contracts to the extent necessary to comply with the requirements at § 442.43 and propose at § 442.43(b) that payments from MCOs and PIHPs count as “Medicaid payments” for purposes of those requirements. We believe this would make the obligations of States that implement LTSS programs through a managed care delivery system clear and consistent with the State obligations for Medicaid FFS delivery systems. Additionally, for States with managed care delivery systems under the authority of sections 1915(a), 1915(b), 1932(a), or 1115(a) of the Act and that include coverage of nursing facility services and/or ICF/IID services in the MCO’s or PIHP’s contract, we are proposing to provide States until the first managed care plan contract rating period that begins on or after the date that is 4 years after the effective date of the final rule to implement these requirements. We solicit feedback on

the proposed application of the reporting requirement to managed care and the proposed effective date. We also invite comments on whether the proposed effective date timeframe is sufficient, whether we should require a longer timeframe (such as 5 years) to implement these provisions, and if a longer timeframe is recommended, the rationale for that longer timeframe.

We expect that, should we finalize these reporting requirements, we would establish new processes and forms for States to meet the reporting requirements, provide additional technical information on how States can meet the reporting requirements, and establish new templates consistent with requirements under the Paperwork Reduction Act. We invite comment on this approach, particularly regarding any additional guidance we would need to provide or actions we would need to take to facilitate States’ implementation of these proposed provisions.

Finally, in consideration of potential future rulemaking, we request comment on whether we should propose that States implement an interested parties’ advisory group in parallel with proposed requirements at § 447.203(b)(6) in the Ensuring Access to Medicaid Services proposed rule (88 FR 29260). Per the discussion in the Ensuring Access to Medicaid Services proposed rule at 88 FR 28024, we are proposing at § 447.203(a)(6) to require States to establish an interested parties advisory group to advise and consult on the sufficiency of FFS rates paid to direct care workers providing certain HCBS. We would be interested in hearing from the public if we should consider developing requirements for States to establish a similar group to advise and consult on nursing facility and ICF/IID service rates.

IV. Collection of Information Requirements

Under the Paperwork Reduction Act of 1995, we are required to provide 60-day notice in the **Federal Register** and solicit public comments before a collection of information requirement is submitted to the Office of Management and Budget (OMB) for review and

approval. In order to fairly evaluate whether an information collection should be approved by OMB, section 3506(c)(2)(A) of the Paperwork Reduction Act of 1995 requires that we solicit comment on the following issues:

- The need for the information collection and its usefulness in carrying out the proper functions of our agency.
- The accuracy of our estimate of the information collection burden.
- The quality, utility, and clarity of the information to be collected.
- Recommendations to minimize the information collection burden on the affected public, including automated collection techniques.

In analyzing information collection requirements (ICRs), we rely heavily on wage and salary information. Unless otherwise indicated, we obtained all salary information from the May 2022 National Occupational Employment and Wage Estimates, BLS at https://www.bls.gov/oes/current/oes_nat.htm. We have calculated the estimated hourly rates in this proposed rule based upon the national mean salary for that particular position increased by 100 percent to account for overhead costs and fringe benefits. The wage and salary data from the BLS do not include health, retirement, and other fringe benefits, or the rent, utilities, information technology, administrative, and other types of overhead costs supporting each employee. The HHS wide guidance on preparation of regulatory and paperwork burden estimates states that doubling salary costs is a good approximation for including these overhead and fringe benefit costs.

Table 6 presents the BLS occupation code and title, the associated LTC facility staff position in this regulation, the estimated average or mean hourly wage, and the adjusted hourly wage (with a 100 percent markup of the salary to include fringe benefits and overhead costs). Where available, the mean hourly wage for Nursing Care Facilities (Skilled Nursing Facilities)¹⁵² was used.

¹⁵² https://www.bls.gov/oes/current/naics4_623100.htm.

TABLE 6—SUMMARY INFORMATION OF ESTIMATED HOURLY COSTS

Occupation code	BLS occupation title	Associated position title in this regulation	Mean hourly wage (\$/hour)	Adjusted hourly wage (with 100% markup for fringe benefits & overhead) (\$/hour) (rounded to nearest dollar)
29-1141	Registered Nurses (Nursing Care Facilities (Skilled Nursing Facilities)).	Registered Nurse	\$37.11	\$74
11-9111	Medical and Health Services Managers (Nursing Care Facilities (Skilled Nursing Facilities)).	Director of Nursing (DON) and Administrator.	49.91	100
29-1216	General Internal Medicine Physicians (General Medical and Surgical Hospitals).	Medical Director	93.90	188
43-6013	Medical Secretaries and Administrative Assistants (General Medical and Surgical Hospitals).	Administrative Assistant	20.30	41
29-1229	Physician, All Other (Specialty (except Psychiatric and Substance Abuse)).	Medical Director	135.86	272
29-1031	Dietitians and Nutritionists	Food and Nutrition Manager	31.63	63
11-3013	(Nursing Care Facilities (Skilled Nursing Facilities))	Facilities Manager	50.95	102
29-2061	Facilities Manager	Licensed Nurse	28.10	56
31-1131	Licensed Practical and Licensed Vocational Nurses (Nursing Care Facilities (Skilled Nursing Facilities)).	Certified Nursing Assistance (CNA).	16.90	34
	Nursing Assistants (Nursing Care Facilities (Skilled Nursing Facilities)).			

We are soliciting public comments on each of these issues for the following sections of this document that contain information collection requirements (ICRs):

A. ICRs Regarding § 483.35 Nursing Services

At § 483.35(a), we propose that each LTC facility would have to provide services by sufficient numbers of each of the following types of personnel identified in this section on a 24-hour basis to provide nursing care to all residents in accordance with resident care plans. Except when exempted under paragraph (g) of this section, licensed nurses, including but not limited to 0.55 hours per resident day of registered nurses; and other nursing personnel, including but not limited to 2.45 hours per resident day of NAs or, if necessary, LPNs. Except when waived under paragraph (e) of this section, each LTC facility must also have a RN on site 24 hours per day, for 7 days a week that is available to provide direct resident care.

These proposed requirements would require each LTC facility to review and modify, as necessary, its policies and procedures regarding nurse staffing. We believe the review and modifications to the necessary policies and procedures would require activities by the director of nursing (DON), an administrator, and an administrative assistant. The DON and the administrator would need to review the requirements, as well as the facility assessment, to determine if any changes are necessary to the policies and procedures and, if so, make

those necessary changes. The DON would then need to work with a medical administrative assistant to ensure that those changes were made to the appropriate documents and ensure that all appropriate individuals in the facility were made aware of the changes. We estimate that these activities would require 2 burden hours for an administrator at a cost of \$200 (\$100 × 2), 3 hours for the DON at a cost of \$300 (\$100 × 3), and 1 hour for the administrative assistant at a cost of \$41 (\$41 × 1). Hence, for each LTC facility the burden estimate would be 6 hours (2 + 3 + 1) at a cost of \$ 541 (\$200 + \$300 + \$41). There are currently 14,688 LTC facilities. Thus, the burden for all LTC facilities would be 88,128 (14,688 × 6) hours at a cost of \$7,946,208 (\$541 × 14,688 LTC facilities).

B. ICRs Regarding § 483.71 Facility Assessment

For the proposed new section, § 483.71 Facility assessment, we propose to relocate the existing requirements at § 483.70(e) Facility assessment to the new § 483.71. We also propose to modify certain specific requirements and add a third section that will set forth the activities for which we expect LTC facilities to use their facility assessments.

We are proposing to relocate current § 483.70(e)(1) (i) through (v) to § 483.71(a)(1)(i) through (v). This section sets forth what the facility assessment must address or include, but is not limited to, regarding the facility's resident population. At § 483.71(a)(1)(ii), we propose to add

“using evidence-based, data-driven methods” and “behavioral health issues” so that the requirement would now read, “(ii) The care required by the resident population, using evidence-based, data driven methods that consider the types of diseases, conditions, physical and behavioral health issues, cognitive disabilities, overall acuity, and other pertinent facts that are present within that population;”. At § 483.71(a)(1)(iii), we propose to add, “and skill sets” so the requirement reads, (iii) The staff competencies and skill sets that are necessary to provide the level and types of care needed for the resident population. We believe these modifications constitute clarifications in the requirements and are not new requirements for which the LTC facilities must comply. Hence, we will not be analyzing any new or additional burden related to these changes.

We propose to relocate the current requirements at § 483.70(e)(2)(i) through (vi) to § 483.71(a)(2)(i) through (vi). At § 483.71(a)(2)(iii), we propose to add “behavioral health” so that the requirement reads, (iii) Services provided, such as physical therapy, pharmacy, behavioral health, and specific rehabilitation therapies. Behavioral health services requirements are set forth at § 483.40 and are integral to the health of residents. All LTC facilities should be considering the behavioral health care needs of their residents. Hence, this change does not constitute a new requirement but a clarification. Hence, we will not be

analyzing any new or additional burden related to this change.

We propose to add a new requirement at § 483.71(a)(4) for LTC facilities to incorporate the input of facility staff and their representatives into their facility assessment. These staff categories include, but are not limited to, nursing home leadership, management, direct care staff and representatives and other service workers. We believe that LTC facilities already include many of these categories of individuals when they conduct or update their facility assessments. Thus, this requirement constitutes a clarification and not a new requirement. Hence, we will not be analyzing any new or additional burden related to this change.

We propose to add new requirements at § 483.71(b). These requirements set forth specific activities for which the LTC facilities would be expected to use their facility assessments. These assessments would inform staffing decisions to ensure that a sufficient number of staff with the appropriate competencies and skill sets necessary to care for its residents' needs as identified through resident assessments and plans of care as required in § 483.35(a)(3); consider specific staffing needs for each resident unit in the facility, and adjust as necessary based on changes its to resident population; consider specific staffing needs for each shift, such as day, evening, night, and adjust as necessary based on any changes to its resident population; and, develop and maintain a plan to maximize recruitment and retention of direct care staff.

We believe that LTC facilities are either already using their facility assessments for these activities or will be based upon the other requirements in this proposed rule, except for using their facility assessments to develop and maintain a plan to maximize recruitment and retention of direct care staff. Based upon our experience with LTC facilities, these facilities are already

working on recruitment and retention of direct care staff. However, we also believe these facilities would need to review their current efforts to determine if there are opportunities to improve their efforts and, if so, decide how to do so. The LTC facility's facility assessment would require the development of a plan to maximize recruitment and retention and accomplish the associated tasks and would also be an invaluable tool in assessing and maintaining sufficient staff for their facility.

The staff involved in developing this plan would vary by the type of care and services provided by the individual facilities. Some LTC facilities might have various therapists on staff, such as physical and occupational therapists. Others might employ psychologists, social workers, or complementary medicine or American Indian/Alaska Native Traditional Healers who provide behavioral health services to residents. When developing a recruitment and retention plan, we encourage LTC facilities to include participation, or at least input, from the various types of direct care staff in their facilities and representatives of these workers, although the hours worked by those staff cannot be used as substitutes for the direct care minimums for RNs and NAs required under this rule. All LTC facilities provide 24-hour nursing services and the direct care nursing staff would include RNs, other licensed nurses (LPNs or LVNs), and nursing assistants (NAs). For the purpose of estimating the burden for developing a recruitment and retention plan, we estimate the burden for an administrator, the DON, and one individual from each of the nursing categories, an RN, LPN/LVN, and NA to develop the plan. These individuals would have to meet to develop a plan and then the administrator will need to obtain approval for the plan from the governing body. During the development process and after approval,

an administrative assistant would need to provide support and ensure the plan is disseminated and save appropriately in the facility's records. We estimate that developing a recruitment and retention plan would require 6 hours for an administrator at a cost of \$600 ($\$100 \times 6$); 6 hours for the DON at a cost of \$600 ($\$100 \times 6$); 4 hours for a registered nurse at a cost of \$296 ($\$74 \times 4$); 2 hours for a LPN/LVN at a cost of \$112 ($\$56 \times 2$); 2 hours for a nursing assistant at a cost of \$68 ($\$34 \times 2$); and, 2 hours for an administrative assistant \$82 ($\$41 \times 2$). Thus, the burden for each LTC facility is 22 ($6 + 6 + 4 + 2 + 2 + 2$) hours at an estimated cost of \$1,758 ($\$ 600 + \$600 + \$296 + \$112 + \$68 + 82$). For all 14,688 LTC facilities the burden would be 323,136 hours (14,688 LTC facilities $\times$ 22) at an estimated cost of \$25,821,504 ($\$1,758 \times 14,688$ LTC facilities). We are requesting comment on our estimated number of burden hours for the proposal for each of the activities and total annual burden and cost for each facility.

Hence, the total estimated burden for the ICRs in part 483 is 411,264 ($88,128 + 323,136$) hours at a cost of \$33,767,712 ($\$7,946,208 + \$25,821,504$). The burden will be included in this revised Information Collection Request under the OMB control number 0938–1363; Expiration date: April 30, 2026.

C. ICR Related to Medicaid Institutional Payment Transparency

1. Wage Estimates

To derive average costs, we used data from the U.S. Bureau of Labor Statistics (BLS) May 2022 National Occupational Employment and Wage Estimates for all salary estimates (http://www.bls.gov/oes/current/oes_nat.htm). In this regard, Table 7 presents BLS's mean hourly wage, our estimated cost of fringe benefits and other indirect costs (calculated at 100 percent of salary), and our adjusted hourly wage.

TABLE 7—NATIONAL OCCUPATIONAL EMPLOYMENT AND WAGE ESTIMATES

Occupation title	Occupation code	Mean hourly wage (\$/hr)	Fringe benefits and overhead (\$/hr)	Adjusted hourly wage (\$/hr)
Administrative Services Manager	11–3012	55.59	55.59	111.18
Chief Executive	11–1011	118.48	118.48	236.96
Compensation, Benefits, and Job Analyst	13–1141	36.50	36.50	73.00
Computer Programmer	15–1251	49.42	49.42	98.84
General and Operations Manager	11–1021	59.07	59.07	118.14
Management Analyst	13–1111	50.32	50.32	100.64
Training and Development Specialist	13–1151	33.59	33.59	67.18

For States and the private sector, our employee hourly wage estimates have been adjusted by a factor of 100 percent. This is necessarily a rough adjustment, both because fringe benefits and other indirect costs vary significantly across employers, and because methods of estimating these costs vary widely across studies. Nonetheless, we believe that doubling the hourly wage to estimate total cost is a reasonably accurate estimation method.

To estimate the financial burden on States related to the proposed Medicaid Institutional Payment Transparency Reporting provisions (discussed below), it was important to consider the Federal government's contribution to the cost of administering the Medicaid program. The Federal government provides funding based on a Federal medical assistance percentage (FMAP) that is established for each State, based on the per capita income in the State as compared to the national average. FMAPs range from a minimum of 50 percent in States with higher per capita incomes to a maximum of 83 percent in States with lower per capita incomes. For Medicaid, all States receive a 50 percent FMAP for administration. States also receive higher Federal matching rates for certain systems improvements, redesign, or operations. Taking into account the Federal contribution to the costs of administering the Medicaid programs for purposes of estimating State burden with respect to collection of information, we elected to use the higher end estimate that the States would contribute 50 percent of the costs, even though the burden would likely be much smaller. We are requesting comment on our estimated number of burden hours for the proposal for each of the activities and total annual burden and cost for each facility.

3. Proposed Information Collection Requirements (ICRs)

The following proposed changes will be submitted to OMB for their approval when our survey instrument has been developed; we are using feedback from this proposed rule to inform the development of the survey instrument. The survey instrument and burden will be made available to the public for their review under the standard non-rule PRA process which includes the publication of 60- and 30-day **Federal Register** notices. In the meantime, we are setting out our preliminary burden figures (see below) as a means of scoring the impact of this rule's proposed changes. The availability of the survey instrument and more definitive burden estimates will be announced in both **Federal**

Register notices. The CMS ID number for that collection of information request is CMS–10851 (OMB control number 0938–TBD). Since this would be a new collection of information request, the OMB control number has yet to be determined (TBD) but will be issued by OMB upon their approval of the new collection of information request. Note that we intend that the following proposed changes associated with §§ 442.43(b), (c), and (d), discussed later in this section, will be submitted to OMB for review as a single PRA package under control number 0938–TBD (CMS–10851).

a. State and Provider Burden Under § 442.43(b) and (c)—Payment Transparency Reporting

As discussed in section III. of this proposed rule, under our authority at sections 1902(a)(6) and 1902(a)(30)(A) with respect to FFS, and sections 1902(a)(4) and 1932(c) of the Act with respect to managed care, we are proposing new reporting requirements at § 442.43(b) for States to report annually on the percent of payments for Medicaid-covered services delivered by nursing facilities and ICF/IIDs that are spent on compensation for direct care workers and support staff. (Our proposed definitions of who is included in direct care workers and support staff, at proposed §§ 442.43(a)(2) and (3), respectively, are discussed in the preamble in section III. of this proposed rule.) The intent of this proposed requirement is for States to report separately, by delivery system and at the provider level, on the percent of payments for nursing facility services that are spent on compensation to direct care workers, the percent of payments for nursing facility services that are spent on compensation to support staff, the percent of payments for ICF/IID services that are spent on compensation to direct care workers, and the percent of payments for ICF/IID services that are spent on compensation to support staff. We propose to add a cross-reference to the requirements in proposed § 438.72 to specify that States that include nursing facility and ICF/IID services in their contracts with managed care organizations (MCOs) or prepaid inpatient health plans (PIHPs) would have to comply with the requirements at § 442.43(b). Where they appear, references to the proposed requirements at § 442.43(b) apply to both FFS and managed care delivery systems.

We are considering adding to the proposed reporting requirements additional elements for States to report on median hourly compensation for direct care workers and median hourly

compensation for support staff, in addition to the percent of Medicaid payments going to overall compensation for these workers. Although we may not finalize these additional reporting requirements, we will include them in our cost estimate to avoid underestimating the costs of this proposal. If finalized, we expect that these additional reporting requirements would also apply to both FFS and managed care delivery systems.

We are also considering adding at § 442.43(c) a provision requiring that States make publicly available information about the underlying FFS payment rates themselves for nursing facility and ICF/IID services. If the proposal was finalized, we would require that States report a single average statewide FFS per diem rate (one reported rate for nursing facility services and one reported rate for ICF/IID services) as part of the reporting requirement required at § 442.43(b). Again, to avoid underestimating, we are including the estimated cost of this potential additional requirement in our cost estimates.

(1) State Institutional Payment Transparency Reporting Requirements and Burden

The burden associated with the proposed reporting requirements would affect all 51 States (including Washington DC). While not all States cover ICF/IID services (because it is an optional Medicaid benefit), all States must offer Medicaid nursing facility services (because it is a mandatory Medicaid benefit). Thus, we anticipate that all 51 States (including Washington, DC) would participate in the reporting requirements proposed at § 442.43(b). Additionally, three territories (Guam, Puerto Rico, and the U.S. Virgin Islands) are required to include nursing facility services in their State plans, and thus will be included in these calculations as well.¹⁵³ While we will include these territories in our cost estimates, we will continue to refer to the affected entities collectively as “States”. We estimate both a one-time and ongoing burden to States to implement these requirements at the State level.

¹⁵³ Note that due to waiver under section 1902(j) of the Social Security Act, American Samoa and the Commonwealth of the Northern Mariana Islands are not required to include nursing facility services in their State plans and thus are not included in these estimates. Additionally, no territory currently includes the optional ICF/IID benefit in their State plan.

One-Time Reporting Requirements and Burden (§ 442.43(b)): States

Under proposed § 442.43(b) and (c), we anticipate as one-time burdens that States, through their designated State Medicaid agency, would have to: (1) draft new policy describing the State-specific reporting process (one-time); (2) update any related provider manuals and other policy guidance (one-time); (3) build, design, and operationalize an electronic system for data collection and aggregation (one-time); (4) identify the information that would be needed to report the State's per diem rates, if that additional proposal is finalized (one-time); and (5) develop and conduct an initial training for providers on the reporting requirement and State-developed reporting system (one-time). We note that we are not proposing to require that States update their Medicaid State plans as part of this reporting requirement, and thus we are not estimating a burden associated with State plan amendments.

With regard to this one-time burden for States, we estimate it would take: 40 hours at \$111.18/hr. for an administrative services manager to draft new policy describing the State-specific reporting process; 14 hours at \$100.64/

hr. for a management analyst to update any related provider manuals and other policy guidance; an additional 1 hour at \$100.64/hr. for a management analyst to identify what information will be needed to report a FFS per diem rate for nursing facility and ICF/IID services,¹⁵⁴ if the additional reporting requirement is finalized; 25 hours at \$98.84/hr. for a computer programmer to build, design, and operationalize an electronic system for data collection on the percent of Medicaid payments going to compensation and (if finalized) median hourly compensation, including data aggregation and stratification by provider, provider type, and worker type (direct care worker or support staff); 30 hours at \$67.18/hr. for a training and development specialist to develop and conduct training for providers on the reporting requirement and system; 3 hours at \$118.14/hr. for a general and operations manager to review and approve policy updates, provider agreement updates, and training materials; and 1 hour at \$236.96/hr. for a chief executive to review and approve all operations associated with this requirement.

In addition to these activities outlined above, States may also have to update

managed care contracts to reflect the new reporting requirement and provide managed care-specific guidance on the reporting requirement. Recent data indicates that 24 States provide at least some long-term services through managed care.¹⁵⁵ For the managed care-specific burden, we estimate 10 hours at \$111.18/hr. for an administrative services manager to draft updates to managed care contracts. (We anticipate that all other State activities associated with managed care plans would be reflected in the activities described previously in this section.)

In aggregate, we estimate a one-time burden of 6,396 hours [(114 hr. × 54 States) + (10 × 24 States)]. We estimate a cost of \$595,867 (54 States × [(40 hr. × \$111.18) + (15 hr. × \$100.64) + (25 hr. × \$98.84) + (30 hr. × \$67.18) + (3 hr. × \$118.14) + (1 hr. × \$236.96)]), with an additional \$26,683 for managed care-related costs (24 States × [10 hr. × \$100.64]). The total cost is estimated at \$622,551 (\$595,867 + \$26,683). Taking into account the Federal contribution to Medicaid administration, the estimated State share of the cost would be \$311,275 (\$622,551 × 0.50).

TABLE 8—SUMMARY OF ONE-TIME BURDEN FOR STATES FOR THE MEDICAID INSTITUTIONAL PAYMENT TRANSPARENCY REPORTING REQUIREMENTS AT § 442.43(b)

Requirement	Number respondents	Total responses	Frequency	Time per response (hr.)	Total time (hr.)	Wage (\$/hr.)	Total cost (\$)	State share (\$)
Draft new policy describing the State-specific reporting process.	54	54	Once	40	2,160	111.18	240,149	120,074
Update any related provider manuals and other policy guidance.	54	54	Once	14	756	100.64	76,084	38,042
Identify information needed for per diem rate reporting	54	54	Once	1	54	100.64	5,435	2,717
Build, design, and operationalize an electronic system for data collection, aggregate, and stratify reporting.	54	54	Once	25	1,350	98.84	133,434	66,717
Develop and conduct training for providers on the reporting requirement and system.	54	54	Once	30	1,620	67.18	108,832	54,416
Review and approve policy updates and training materials ...	54	54	Once	3	162	118.14	19,139	9,569
Review and approve all operations associated with this requirement.	54	54	Once	1	54	236.96	12,796	6,398
Draft contract modifications for managed care plans	24	24	Once	10	240	111.18	26,683	13,342
Total	Varies	402	Once	Varies	6,396	Varies	622,551	311,275

Ongoing Reporting Requirements and Burden (§ 442.43(b)): States

Under proposed § 442.43(b), we estimate as ongoing burdens that States would: (1) notify and train nursing facility and ICF/IID providers about the annual reporting requirement, including the State-level process for collecting

data (ongoing); (2) collect information from providers annually (ongoing); (3) aggregate or stratify data as needed (ongoing); (4) derive percentages for compensation (ongoing); and (5) develop a report for CMS on an annual basis (ongoing).

With regard to the ongoing burden, we estimate it would take: 8 hours at \$67.18/hr. for a training and development specialist to notify and train providers about annual reporting requirement; 2 hours at \$100.64 for a management analyst to gather the State's information needed to include per diem

¹⁵⁴ As discussed in section III. of this proposed rule, if finalized, the proposal to report per diem rates for nursing facility and ICF/IID services would only be applied to FFS rates. If finalized, this proposal would not apply to States that deliver nursing facility and ICF/IID services solely through managed care. However, some States with managed

care delivery systems still pay for some LTSS under a FFS delivery system. For the purposes of this estimate, we are assuming all States will be participating in this reporting requirement, even though the requirement might apply to fewer than 54 States upon implementation.

¹⁵⁵ Data taken from Centers for Medicare & Medicaid Services, "Managed Long Term Services and Supports (MLTSS) Enrollees," available at <https://data.medicare.gov/dataset/5394bcab-c748-5e4b-af07-b5bf77ed3aa3>.

rates for the State's FFS nursing facility and ICF/IID services (if finalized); 6 hours at \$98.84/hr. for a computer programmer to collect information from providers, aggregate data as needed, derive percentages for compensation, and develop a report for the State; 2 hours at \$118.14/hr. by a general and

operations manager to review, verify, and submit the report to CMS; and 1 hour at \$236.96/hr. for a chief executive to review and approve all operations associated with this requirement.

In aggregate, we estimate an ongoing burden of 1,026 hours (19 hr. × 54 States) at a cost of \$97,470 (54 States ×

[(8 hr. × \$67.18) + (2 hr. × \$100.64) + (6 hr. × \$98.84) + (2 hr. × \$118.14) + (1 hr. × \$236.96)]. Taking into account the Federal contribution to Medicaid administration, the estimated State share of this cost would be \$48,735 (\$97,470 × 0.50) per year.

TABLE 9—SUMMARY OF ONGOING BURDEN FOR STATES FOR THE MEDICAID INSTITUTIONAL PAYMENT TRANSPARENCY REPORTING REQUIREMENTS AT § 442.43(b)

Requirement	Number respondents	Total responses	Frequency	Time per response (hr.)	Total time (hr.)	Wage (\$/hr.)	Total cost (\$)	State share (\$)
Notify and train providers about annual reporting requirement	54	54	Annually ..	8	416	67.18	29,022	14,511
Gather information needed to report State FFS per diem rates.	54	54	Annually ..	2	108	100.64	10,869	5,435
Collect information from providers; aggregate data as required; derive an overall percentage for compensation; and develop report for State.	54	54	Annually ..	6	312	98.84	32,024	16,012
Review, verify, and submit report to CMS	54	54	Annually ..	2	104	118.14	12,759	6,380
Review and approve all operations associated with this requirement.	54	54	Annually ..	1	52	236.96	12,796	6,398
Total	54	270	Annually ..	Varies	1,026	Varies	97,470	48,735

(2) Nursing Facility and ICF/IID Institutional Payment Transparency Reporting Requirements and Burden

The burden associated with this proposed rule would affect nursing facility and ICF/IID providers in both FFS and managed care systems. We estimate both a one-time and ongoing burden to implement the reporting requirement proposed at § 442.43(b).

To estimate the number of nursing facility and ICF/IID providers that would be impacted by this proposed rule, we used data from the CMS Quality Certification and Oversight Reports (QCOR) system (*qcor.cms.gov*) to identify the total number of Medicaid-certified nursing facilities and ICF/IIDs in all States (including Washington DC) and the three territories that are required to include nursing facility services in their State plan. Data from QCOR indicates that in FY 2022, there were 14,194 freestanding Medicaid-certified nursing facilities (including facilities dually certified for both Medicare and Medicaid, and Medicaid-only facilities). Additionally, in FY 2022, there were 5,713 ICF/IIDs.

In total, we estimate 19,907 Medicaid-certified nursing facilities and ICF/IIDs that could be impacted by this proposed reporting requirement and may need to provide data to the State on what percentage of their Medicaid reimbursements for nursing facility and ICF/IID services went to direct care worker and support staff compensation.

Under proposed § 442.43(b), we anticipate that nursing facilities and ICF/IIDs would need to: (1) learn the State-specific reporting policies and process (one-time); (2) calculate compensation for each direct care worker and support staff if they do not already have that information readily available (one-time); and (3) build, design and operationalize an internal system for developing the report for the State (one-time). We note that we do not anticipate any additional burden on providers associated with the proposed additional reporting requirements (to report median hourly wages and the State's FFS per diem rates). We expect that States would be able to calculate median hourly wages based on the information collected from providers.

We also believe the State, not, providers, would have the information needed to report the State's FFS per diem rates for nursing facility and ICF/IID services.

One-Time Reporting Requirements and Burden (§ 442.43(b)): Nursing Facility and ICF/IID Providers

With regard to the one-time burden for providers, we estimate it would take: 10 hours at \$73.00/hr. for a compensation, benefits, and job analysis specialist to learn the State-specific reporting policy and calculate compensation for each direct care worker and support staff; 10 hours at \$98.84/hr. for a computer programmer to build, design, and operationalize an internal system for developing the report for the State; and 1 hour at \$118.14/hr. for a general and operations manager to review and approve the reporting system. In aggregate, we estimate a one-time burden of 418,047 hours (19,907 facilities × 21 hr.) at a cost of \$36,560,002 (19,907 providers × [(10 hr. × \$73.00) + (10 hr. × \$98.84) + (1 hr. × \$118.14)]).

TABLE 10—SUMMARY OF ONE-TIME BURDEN FOR NURSING FACILITIES AND ICF/IIDs FOR THE MEDICAID INSTITUTIONAL PAYMENT TRANSPARENCY REPORTING REQUIREMENTS AT § 442.43(b)

Requirement	Number respondents	Total responses	Frequency	Time per response (hr.)	Total time (hr.)	Wage (\$/hr.)	Total cost (\$)	State share (\$)
Learn State-specific reporting policy; calculate compensation for each direct care worker and support staff.	19,907	19,907	Once	10	199,070	73.00	14,532,110	n/a
Build, design, and operationalize an internal system for developing the report for the State.	19,907	19,907	Once	10	199,070	98.84	19,676,079	n/a
Review and approve reporting system	19,907	19,907	Once	1	19,907	118.14	2,351,813	n/a
Total	19,907	59,721	Once	Varies	418,047	Varies	36,560,002	n/a

Ongoing Reporting Requirements and Burden (§ 442.43(b)): Nursing Facility and ICF/IID Providers

With regard to the ongoing burden, we anticipate nursing facilities and ICF/IIDs would have to: (1) update compensation calculations to account for on-going staffing changes among direct care workers and support staff (in other words, ensure their system includes newly hired direct care workers or support staff and takes into

account staff departures); (2) calculate the aggregated compensation of direct care workers and support staff as a percentage of their annual Medicaid claims (ongoing); and (3) report the information to the State annually (ongoing).

We estimate it would take 8 hours at \$73.00/hr. for a compensation, benefits, and job analysis specialist to update compensation calculations to account for staffing changes; 2 hours at \$98.84/

hr. for a computer programmer to calculate compensation, aggregate data, and report to the State as required; and 1 hour at \$118.14/hr. for a general and operations manager to review, approve, and submit the report to the State. In aggregate, we estimate an on-going burden of 218,977 hours (19,907 providers × 11 hr.) at a cost of \$17,912,717 (19,907 facilities × [(8 hr. × \$73.00) + (2 hr. × \$98.84) + (1 hr. × \$118.14)]).

TABLE 11—SUMMARY OF ONGOING BURDEN FOR NURSING FACILITY AND ICF/IIDs FOR THE MEDICAID INSTITUTIONAL PAYMENT TRANSPARENCY REPORTING REQUIREMENTS AT § 442.43(b)

Requirement	Number respondents	Total responses	Frequency	Time per response (hr.)	Total time (hr.)	Wage (\$/hr.)	Total cost (\$)	State share (\$)
Account for staffing changes among employees and contracted employees.	19,907	19,907	Annually ..	8	159,256	73.00	11,625,688	n/a
Calculate compensation, aggregate data, and report to the State.	19,907	19,907	Annually ..	2	39,814	98.84	3,935,216	n/a
Review, approve, submit report to the State	19,907	19,907	Annually ..	1	19,907	118.14	2,351,813	n/a
Total	19,907	59,721	Annually ..	Varies	218,977	Varies	17,912,717	n/a

b. State Website Posting Requirements and Burden (§ 442.43(d))

At § 442.43(d), we propose to require States to operate a website that meets the availability and accessibility requirements at § 435.905(b) of this chapter and that provides the results of the newly proposed reporting requirements in § 442.43(b). We also propose at § 442.43(d) that States must verify, no less than quarterly, the accurate function of the website and the timeliness of the information and links.

As noted above, we anticipate that this provision would affect all 51 States (including Washington, DC) and the territories required to have nursing facility services in their State plans which we refer to collectively as “States.”. We estimate both a one-time and ongoing burden to implement these requirements at the State level, which would be the same regardless of whether the State offers nursing facility and ICF/IID services through FFS or

managed care systems. In developing our burden estimate, we assumed that States would provide the data and information that States are required to report under newly proposed § 442.43(d) by adding to an existing website, rather than developing an entirely new website to meet this requirement. We note that we are not proposing to require that States update their Medicaid State plans as part of this reporting requirement and are not estimating a burden associated with State plan amendments. We are also not anticipating an additional website burden associated with the possible additional reporting requirements (to report median hourly wage and to report the State’s FFS per diem rates) discussed previously in this section as this information, if finalized, would be integrated into the other website posting activities.

One Time Website Posting Requirements and Burden (§ 442.43(d)): States

With regard to the one-time burden, based on the website requirements, we estimate it would take: 10 hours at \$111.18/hr. for an administrative services manager to determine the content of the website; 30 hours at \$98.84/hr. for a computer programmer to develop the website; 1 hour at \$118.14/hr. for a general and operations manager to review and approve the website; and 1 hour at \$236.96/hr. for a chief executive to review and approve the website. In aggregate, we estimate a one-time burden of 2,268 hours (54 States × 42 hr.) at a cost of \$239,333 (54 States × [(10 hr. × \$111.18) + (30 hr. × \$98.84) + (1 hr. × \$118.14) + (1 hr. × \$236.96)]). Taking into account the Federal contribution to Medicaid administration, the estimated State share of this cost would be \$119,667 (\$239,333 × 0.50) per year.

TABLE 12—SUMMARY OF THE ONE-TIME BURDEN FOR STATES FOR THE WEBSITE POSTING REQUIREMENTS AT § 442.43(f)

Requirement	Number respondents	Total responses	Frequency	Time per response (hr.)	Total time (hr.)	Wage (\$/hr.)	Total cost (\$)	State share (\$)/year
Determine content of website	54	54	Once	10	540	111.18	60,037	30,019
Develop website	54	54	Once	30	1,620	98.84	160,121	80,060
Review and approve the website at the management level ...	54	54	Once	1	54	118.14	6,380	3,190
Review and approve the website at the executive level	54	54	Once	1	54	236.96	12,796	6,398
Total	54	216	Once	Varies	2,268	Varies	239,333	119,667

Ongoing Website Posting Requirements and Burden (§ 442.43(d)): States

With regard to the States' ongoing burden related to the website requirement, per quarter we estimate it would take: 2 hours at \$111.18/hr. for an administrative services manager to provide any updated data and information for posting and to verify the

accuracy of the website; 8 hours at \$98.84/hr. for a computer programmer to make any needed updates to the website; 1 hour at \$118.14/hr. for a general and operations manager to review and approve the website; and 1 hour at \$236.96/hr. for a chief executive to review and approve the website. In aggregate, we estimate an ongoing

annual burden of 2,592 hours (12 hr. × 54 States × 4 quarters) at a cost of \$295,527 (54 States × 4 quarters × [(2 hr. × \$111.18) + (8 hr. × \$98.84) + (1 hr. × \$118.14) + (1 hr. × \$236.96)]. Taking into account the Federal contribution to Medicaid administration, the estimated State share of this cost would be \$147,763 (\$295,527 × 0.50) per year.

TABLE 13—SUMMARY OF THE ONGOING BURDEN FOR STATES FOR THE WEBSITE POSTING REQUIREMENTS AT § 442.43(f)

Requirement	Number respondents	Total responses	Frequency	Time per response (hr.)	Total time (hr.)	Wage (\$/hr.)	Total cost (\$)	State share (\$)
Provide updated data and information for posting and verify the accuracy of the website.	54	216	Quarterly	2	432	111.18	48,030	24,015
Update website	54	216	Quarterly	8	1,728	98.84	170,796	85,398
Review and approve website at the management level	54	216	Quarterly	1	216	118.14	25,518	12,759
Review and approve website at the executive level	54	216	Quarterly	1	216	236.96	51,183	25,592
Total	54	864	Quarterly	Varies	2,592	Varies	295,527	147,763

4. Burden Estimate Summary

TABLE 14—SUMMARY OF ANNUAL BURDEN ESTIMATES

Regulation section(s)/ICR provision	Number of respondents	Number of responses	Time per response (hrs)	Total time (hr.)	Hourly labor rate (\$/hr.)	Total labor cost (\$)	State share (\$)	Total beneficiary cost (\$)
§ 442.43(b) One-Time Burden to States (Table 8) (Payment Transparency Reporting).	Varies	402	Varies	6,396	Varies	622,251	311,275	0
§ 442.43(b) Ongoing Burden to States (Table 9) (Payment Transparency Reporting—Annual).	54	270	Varies	1,026	Varies	97,470	48,735	0
§ 442.43(b) One-Time Burden to Providers (Table 10) (Payment Transparency Reporting).	19,907	59,721	Varies	418,047	Varies	36,560,002	n/a	0
§ 442.43(b) Ongoing Burden to Providers (Table 11) (Payment Transparency Reporting—Annual).	19,907	59,721	Varies	218,977	Varies	17,912,717	n/a	0
§ 442.43(f) One-Time Burden to States (Table 12) (Website Posting).	54	216	Varies	2,268	Varies	239,333	119,667	0
§ 442.43(f) Ongoing Burden to States (Table 13) (Website Posting—Quarterly).	54	864	Varies	2,592	Varies	295,527	147,763	0
Total	Varies	121,194	Varies	649,306	Varies	55,727,300	627,440	0

Comments must be received on/by October 31, 2023.

V. Response to Comments

Because of the large number of public comments we normally receive on **Federal Register** documents, we are not able to acknowledge or respond to them individually. We will consider all comments we receive by the date and time specified in the **DATES** section of this preamble, and, when we proceed with a subsequent document, we will respond to the comments in the preamble to that document.

VI. Regulatory Impact Analysis

A. Statement of Need

1. Minimum Nurse Staffing

With respect to the requirements for minimum nurse staffing in LTC facilities, sections 1819 and 1919 of the Act, authorize the Secretary to issue requirements for participation in

Medicare and Medicaid, including such regulations as may be necessary to protect the health and safety of residents (sections 1819(d)(4)(B) and 1919(d)(4)(B) of the Act). Such regulations are codified in the implementing regulations at 42 CFR part 483, subpart B.

Approximately 1.4 million Americans are residents in LTC facilities with Medicare and Medicaid serving as the payor for most residents.¹⁵⁶ As we have discussed in detail in sections II. and III. of this proposed rule, a large body of quantitative and qualitative research suggests that adequate nurse staffing is vital for ensuring residents' health and safety. More specifically, there is a positive association between the number of hours of care that a resident receives each day and resident health

and safety.^{157 158 159} Research also suggests that there is a relationship between inadequate staffing and nursing staff burnout, which can lead to high

¹⁵⁷ Ochieng, N., Chidambaram, P., Musumeci, M. Nursing Facility Staffing Shortages During the COVID-19 Pandemic. Apr 04, 2022. Kaiser Family Foundation. Accessed at <https://www.kff.org/coronavirus-covid-19/issue-brief/nursing-facility-staffing-shortages-during-the-covid-19-pandemic/>.

¹⁵⁸ Harrington, C., Carrillo, H., Garfield, R., Squires, E. Nursing Facilities, Staffing, Residents and Facility Deficiencies, 2009 Through 2016. Apr 03, 2018. Kaiser Family Foundation. Accessed at <https://www.kff.org/report-section/nursing-facilities-staffing-residents-and-facility-deficiencies-2009-through-2016-staffing-levels/>.

¹⁵⁹ Min A, Hong HC. Effect of nurse staffing on rehospitalizations and emergency department visits among short-stay nursing home residents: A Cross-sectional study using the US Nursing Home Compare database. *Geriatr Nurs*. 2019 Mar-Apr;40(2):160–165. doi: 10.1016/j.gerinurse.2018.09.010. Epub 2018 Oct 4. PMID: 30292528.

¹⁵⁶ <https://data.cms.gov/summary-statistics-on-use-and-payments/medicare-service-type-reports/cms-program-statistics-medicare-skilled-nursing-facility>.

employee turnover.¹⁶⁰ High employee turnover, in turn, can lead to lower continuity of resident care.

During our regular interactions with State Medicaid agencies, provider groups, and beneficiary advocates, we have observed that all these interested parties routinely express the concern that chronic understaffing in LTC facilities is making it difficult for residents to receive high quality care. Low quality care also has a negative impact on Medicare and Medicaid leading to higher spending due to more hospitalizations and unplanned Emergency Department visits.^{161 162 163} As we have noted throughout this rule, the available evidence suggests that a wide range of requirements for LTC facility staff could increase the quality of care in LTC facilities. We also recognized, however, that staffing in the long-term care sector is still recovering from the COVID-19 pandemic that saw a large number of employees leave the sector, leading to concerns about resident access to care. In response to these concerns, and after evaluating a wide range of research and stakeholder feedback, we developed a proposed 24/7 on-site RN requirement and minimum RN and NA HPRD requirements that aim to increase resident safety and quality of care while preserving resident access to care.

Specifically, we are proposing that LTC facilities provide RN coverage onsite 24 hours per day, 7 days a week (24/7 RN). In addition, we are proposing that they provide a minimum of 0.55 RN and 2.45 NA hours of care per resident day (HPRD). We note that, as discussed in section II above, while the 0.55 and 2.45 HPRD standards were developed using case-mix adjusted data sources, the standards themselves will be

implemented and enforced independent of a facility's case-mix. In other words, facilities must meet the 0.55 RN and 2.45 NA HPRD standards, regardless of the individual facility's patient case-mix. Requiring 24/7 RN and a minimum number of hours of RN and NA hours of care for each resident will help protect resident health and safety by ensuring that all facilities provide a minimal level of staff care to address residents' health and safety needs. These standards reflect only the minimum level of staffing required and all LTC facilities must provide adequate staffing to meet their specific population's needs based on their facility assessments.

2. Medicaid Institutional Payment Transparency Reporting

Millions of Americans, including children and adults of all ages, receive Medicaid-covered long-term services and supports (LTSS) because of disabling conditions, chronic illness, and other factors. Medicaid is the largest payer nationally of LTSS. In 2019, 1.5 million Medicaid beneficiaries received nursing facility or intermediate care facility for individuals with intellectual disability (ICF/IID) services,¹⁶⁴ which accounted for over \$61 billion in Medicaid expenditures, or 13 percent of the \$478 billion in total Medicaid expenditures for that year.¹⁶⁵

Through our regular interactions with State Medicaid agencies, provider groups, and beneficiary advocates, we have observed that all these interested parties routinely express the concern that understaffing in facilities and high rates of worker turnover of direct care workers make it difficult to have the

sufficient workforce of well-trained and qualified staff needed to help ensure access to high-quality institutional services for people with disabilities and older adults. Further, demand for direct care workers is expected to continue rising due to the growing needs of the aging population.^{166 167}

As discussed in sections II. and III. of this proposed rule, anecdotal, quantitative, and qualitative evidence indicates that consistent, adequate direct care nurse staffing is vital to residents' health and safety. Worker turnover or understaffing also can reduce the efficiency of Medicaid payment for services, most clearly when the payment methodology is based on the actual cost of delivering services and such costs are increased due to reliance on overtime and temporary staff, which can have higher hourly costs than non-overtime wages paid to permanent staff. Further, understaffing can reduce quality of care, which can lead to poorer outcomes for people in institutional settings and result in costly emergency department visits and hospitalizations.^{168 169 170} Accordingly, understaffing can reduce the cost-effectiveness of Medicaid institutional services.

In response to these concerns about the institutional workforce, we are proposing new Federal reporting requirements that are intended to promote public transparency around States' statutory obligation under section 1902(a)(30)(A) of the Act and around the quality requirements in section 1932(c) of the Act for services furnished through managed care

¹⁶⁶ Campbell, S., A. Del Rio Drake, R. Espinoza, K. Scales. 2021. *Caring for the future: The power and potential of America's direct care workforce*. Bronx, NY: PHI <http://phinational.org/wp-content/uploads/2021/01/Caring-for-the-Future-2021-PHI.pdf>.

¹⁶⁷ Centers for Medicare & Medicaid Services. November 2020. *Long-Term Services and Supports Rebalancing Toolkit*. Accessed at <https://www.medicaid.gov/medicaid/long-term-services-supports/downloads/ltss-rebalancing-toolkit.pdf>.

¹⁶⁸ Ochieng, N., Chidambaram, P., Musumeci, M. *Nursing Facility Staffing Shortages During the COVID-19 Pandemic*. Apr 04, 2022. Kaiser Family Foundation. Accessed at <https://www.kff.org/coronavirus-covid-19/issue-brief/nursing-facility-staffing-shortages-during-the-covid-19-pandemic/>.

¹⁶⁹ Harrington, C., Carrillo, H., Garfield, R., Squires, E. *Nursing Facilities, Staffing, Residents and Facility Deficiencies, 2009 Through 2016*. Apr 03, 2018. Kaiser Family Foundation. Accessed at <https://www.kff.org/report-section/nursing-facilities-staffing-residents-and-facility-deficiencies-2009-through-2016-staffing-levels/>.

¹⁷⁰ Min A, Hong HC. Effect of nurse staffing on rehospitalizations and emergency department visits among short-stay nursing home residents: A Cross-sectional study using the US Nursing Home Compare database. *Geriatr Nurs*. 2019 Mar-Apr;40(2):160–165. doi: 10.1016/j.gerinurse.2018.09.010. Epub 2018 Oct 4. PMID: 30292528.

¹⁶⁰ Kelly LA, Gee PM, Butler RJ. Impact of nurse burnout on organizational and position turnover. *Nurs Outlook*. 2021 Jan-Feb;69(1):96–102. doi: 10.1016/j.outlook.2020.06.008. Epub 2020 Oct 4. PMID: 33023759; PMCID: PMC7532952.

¹⁶¹ Ochieng, N., Chidambaram, P., Musumeci, M. *Nursing Facility Staffing Shortages During the COVID-19 Pandemic*. Apr 04, 2022. Kaiser Family Foundation. Accessed at <https://www.kff.org/coronavirus-covid-19/issue-brief/nursing-facility-staffing-shortages-during-the-covid-19-pandemic/>.

¹⁶² Harrington, C., Carrillo, H., Garfield, R., Squires, E. *Nursing Facilities, Staffing, Residents and Facility Deficiencies, 2009 Through 2016*. Apr 03, 2018. Kaiser Family Foundation. Accessed at <https://www.kff.org/report-section/nursing-facilities-staffing-residents-and-facility-deficiencies-2009-through-2016-staffing-levels/>.

¹⁶³ Min A, Hong HC. Effect of nurse staffing on rehospitalizations and emergency department visits among short-stay nursing home residents: A Cross-sectional study using the US Nursing Home Compare database. *Geriatr Nurs*. 2019 Mar-Apr;40(2):160–165. doi: 10.1016/j.gerinurse.2018.09.010. Epub 2018 Oct 4. PMID: 30292528.

¹⁶⁴ Kim, Min-Young, Edward Weizenegger, and Andrea Wysocki. *Medicaid Beneficiaries Who Use Long-Term Services and Supports: 2019*. Chicago, IL: Mathematica, July 22, 2022. Accessed at <https://www.medicaid.gov/medicaid/long-term-services-supports/downloads/ltss-user-brief-2019.pdf>. Disclaimer: This document contains links to non-United States Government websites. We are providing these links because they contain additional information relevant to the topic(s) discussed in this document or that otherwise may be useful to the reader. We cannot attest to the accuracy of information provided on the cited third-party websites or any other linked third-party site after the date when we accessed them. We are providing these links for reference only; linking to a non-United States Government website does not constitute an endorsement by CMS, HHS, or any of their employees of any products presented on the website. Also, please be aware that the privacy protections generally provided by United States Government websites do not apply to third-party sites.

¹⁶⁵ Murray, Caitlin, Alena Tourtellotte, Debra Lipson, and Andrea Wysocki. *Medicaid Long Term Services and Supports Annual Expenditures Report: Federal Fiscal Year 2019*. Chicago, IL: Mathematica, December 9, 2021. Accessed at <https://www.medicaid.gov/medicaid/long-term-services-supports/downloads/ltss-expenditures2019.pdf>.

organizations (MCOs) (as well as for prepaid inpatient health plans (PIHPs). We do so under our authority at section 1902(a)(4)), to make Medicaid payments that are sufficient to enlist enough providers so that high-quality LTSS are available to the beneficiaries who want and require such care. We are also relying on our authority under section 1902(a)(6) of the Act, which requires State Medicaid agencies to make such reports, in such form and containing such information, as the Secretary may from time to time require, and to comply with such provisions as the Secretary may from time to time find necessary to assure the correctness and verification of such reports.

Specifically, we are proposing to require that State Medicaid agencies report annually, at the facility level and by delivery system (if applicable), on the portion of payments to nursing facility and ICF/IID services that are spent on compensation for the direct care and support staff workforce.¹⁷¹ We are also proposing that States make this information available to the public by posting the information on a website. We are focusing on this compensation proposal because many direct care workers and support staff earn low wages and receive limited benefits.¹⁷² Evidence suggests that there is a connection between wages and high rates of turnover among some workers in the institutional workforce.¹⁷³ In order to develop relevant policies to support high quality care for Medicaid beneficiaries, we first need clear, consistent data from States and facilities about the current percent of Medicaid payments going to the compensation of direct care workers and support staff. Data regarding the percent of Medicaid payments going to compensation of direct care workers and support staff is not currently being reported to CMS.

B. Overall Impacts

We have examined the impacts of this proposed rule as required by Executive Order 12866 on Regulatory Planning and Review (September 30, 1993), Executive Order 13563 on Improving Regulation and Regulatory Review

(January 18, 2011), the Regulatory Flexibility Act (RFA, September 19, 1980, Pub. L. 96–354), section 1102(b) of the Act, section 202 of the Unfunded Mandates Reform Act of 1995 (UMRA, March 22, 1995; Pub. L. 104–4), and Executive Order 13132 on Federalism (August 4, 1999).

Executive Orders 12866 and 13563 direct agencies to assess all costs and benefits of available regulatory alternatives and, if regulation is necessary, to select regulatory approaches that maximize net benefits (including potential economic, environmental, public health and safety effects, distributive impacts, and equity). Executive Order 14094 entitled “Modernizing Regulatory Review” (hereinafter, the Modernizing E.O.) amends section 3(f)(1) of Executive Order 12866 (Regulatory Planning and Review). The amended section 3(f) of Executive Order 12866 defines a “significant regulatory action” as an action that is likely to result in a rule: (1) having an annual effect on the economy of \$200 million or more in any 1 year (adjusted every 3 years by the Administrator of OIRA for changes in gross domestic product), or adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State, local, territorial, or tribal governments or communities; (2) creating a serious inconsistency or otherwise interfering with an action taken or planned by another agency; (3) materially altering the budgetary impacts of entitlement grants, user fees, or loan programs or the rights and obligations of recipients thereof; or (4) raising legal or policy issues for which centralized review would meaningfully further the President’s priorities or the principles set forth in this Executive order, as specifically authorized in a timely manner by the Administrator of OIRA in each case.

A regulatory impact analysis (RIA) must be prepared for regulatory actions with significant effects as per section 3(f)(1) (\$200 million or more in any 1 year). Accordingly, we have prepared a Regulatory Impact Analysis that to the best of our ability presents the costs and benefits of the rulemaking.

For this proposed rule, we have calculated the annual cost of the proposed minimum staffing requirements in Table 20 hours based on hours per resident day in CY 2021 dollars, assuming the implementation and enforcement of these requirements as being applied independent of a facility’s case-mix. We estimate that the aggregate impact of the staffing-related

provisions proposed in this rule, which includes a phased-in implementation of a requirement for 24 hours per day, 7 days per week RN onsite coverage, as well as the 0.55 RN and 2.45 NA minimum HPRD requirements, will result in an estimated cost of approximately \$32 million in year 1, \$246 million in year 2, \$4.06 billion in year 3, with costs increasing to \$5.7 billion by year 10. We estimate the total cost over 10 years will be \$40.6 billion with an average annual cost of \$4.06 billion.

Additionally, we have estimated in Table 30 the economic impact of the proposed requirement that States report, by facility and by delivery system (if applicable), on the percentage of Medicaid payments being spent on compensation for direct care workers and support staff delivering Medicaid-covered nursing facility and ICF/IID services. We are proposing that these requirements would become effective 4 years after finalization. We estimate an initial implementation cost of \$9,355,472 for years 1 to 4 (resulting in total initial implementation costs of \$37,421,886) and ongoing annual costs of \$18,305,713 per year starting in year 5.

C. Detailed Economic Analysis

1. Impacts for LTC Minimum Staff Requirement

a. Nursing Services (\$ 483.35)

We are proposing to make two changes to the existing requirements for Nursing Services for LTC facilities at \$ 483.35. We are proposing to require facilities to provide RN coverage onsite 24 hours per day, 7 days a week and to meet a minimum staffing standard of 0.55 RN and 2.45 NA HPRD. We note that these estimates do not include the exemption criteria, which could reduce the rule’s cost (including cost associated with potential LTC facility closure or reduction in patient load capacity per facility) and benefits, based on the use of exemptions.

(1) RN On Site 24 Hours a Day, 7 Days a Week (24/7 RN)

To estimate the cost to the industry for the RN on site 24 hours a day, 7 days a week (24/7 RN) requirement we first summed the current annual RN salary cost for each facility. We then subtracted this amount from the estimated annual RN salary cost that the facility will incur to meet the new requirement.

To measure the current RN staff cost to the industry, we estimated the total number of RNs currently employed in LTC facilities and their loaded

¹⁷¹ Throughout this discussion, we use the term “States” to include all States, Washington, DC, and any territories that include nursing facility services or ICF/IID services in their State plan.

¹⁷² Campbell, S., A. Del Rio Drake, R. Espinoza, K. Scales. 2021. Caring for the future: The power and potential of America’s direct care workforce. Bronx, NY: PHI <http://phinational.org/wp-content/uploads/2021/01/Caring-for-the-Future-2021-PHI.pdf>.

¹⁷³ Sharma, H. and Liu, X. Association between wages and nursing staff turnover in Iowa. *Innov Aging*. 2022; 6(4): igac004. Published online 2022 Feb 5. doi: 10.1093/geroni/igac004.

respective labor wages using data from the 2022 Nursing Home Staffing Study, which has information on 14,688 LTC facilities. This study uses the 2021 SNF—Medicare Cost Report data set to find the total facilities, the total number of reported LTC specific RNs and their loaded annual salaries, defined as salary and fringe benefits. Using this dataset, we were able to estimate the aggregate RN loaded salary costs and the cost per facility.

To estimate the RN cost per resident census, we used the October 2021 Care Compare data set that calculates average hours per resident day (HPRD) for RNs using the PBJ System data from 2021 Q2. Hours per resident day is defined as the average hours of RN care that each resident in the facility receives per day. For example, a facility that has an average HPRD of 0.5 for RNs would provide, on average, 0.5 hours (30 minutes) of RN care for each resident. We linked this dataset using the facility unique ID variable with the 2021 SNF—Medicare Cost Report data set to create a complete dataset. Using this combined dataset, we were also able to view the impact by resident census as well as the impact by LTC facility characteristics such as facility ownership, bed size, Five-Star Quality Rating System staffing ratings, payer mix, and location. This complete dataset helped provide an understanding of which types of LTC facilities would bear the largest cost burden of a new Federal 24/7 RN requirement.

For each facility, we first calculated the total number of hours each day that an RN is on site by multiplying the average RN hours per resident day by the average number of residents in the facility (daily hours of RN care = RN HPRD × Residents in Facility). We then estimated the number of additional hours of RN care that facility would need to meet the 24/7 RN requirement by subtracting the current daily hours of RN care from 24 hours (additional daily RN hours needed = 24 – current daily hours of RN care). We then calculated

the total number of additional RN hours needed per year by multiplying this amount by 365 (additional yearly RN hours needed = additional daily RN hours needed × 365). Finally, we estimated each facility’s yearly cost for meeting the requirement by multiplying the total number of the yearly hours needed by the loaded hourly wage (yearly 24/7 RN cost = additional yearly RN hours needed × facility RN wage rate).

For example, if a facility had an average of 0.4 RN HPRD and had 50 residents it would provide 20 hours of total RN hours per day (0.4 HPRD × 50 residents = 20 total RN hours per day). To meet the 24/7 RN requirement, this facility would have to increase its total RN hours per day by 4 hours (24 hours needed – 20 hours current RN care = 4 hours needed) and 1,460 hours (4 hours per day × 365 days/year) annually. Using the loaded hourly wage cost of \$44 per hour, this facility would spend \$64,240 per year (\$44 × 4 RN hours per day × 365 day per year = \$64,240) to be in compliance with the 24/7 RN requirement.

After estimating each facility’s cost for meeting the 24/7 RN requirement, the next step was to sum the additional cost for all LTC facilities to meet the 24/7 RN requirement for an aggregate cost to the industry of \$349 million per year. We also found approximately 78 percent of LTC facilities had 24/7 RN coverage within a 90-day window based on PBJ System data from 2021 Q2 showing that they provided at least 24 hours of RN care per day. We assumed this estimate for all quarters, for an annual estimate of approximately 22 percent (100 percent – 78 percent = 22 percent) or 3,261 LTC facilities (0.222 × 14,688 LTC facilities = 3,261 LTC facilities) that would need to increase their RN staffing to comply with the 24/7 RN requirement. Among this 22 percent of facilities needing to increase RN staffing, there was an average of 0.43 hours of RN care per resident day.

Table 15 summarizes the average annual cost for LTC facilities to meet the

24/7 RN Staffing Requirement over a 10-year period, which includes any associated collection of information costs as described in section IV. In estimating the cost, we take into account expected growth in wages that will result from greater demand for RNs in LTC facilities to meet this proposed 24/7 RN requirement, as well as the 0.55 RN hours per resident day requirement that we discuss in more detail later in the analysis. All costs are reflected in 2021 US dollars.

There is uncertainty about how much RN wages will change over the next 10 years due to changes in demand for RNs emerging due to both this proposed rule, as well as broader patterns of healthcare use in the United States. A 2009 study¹⁷⁴ examined minimum licensed nurse (RN/LPN) staffing standards in California for acute care hospitals that went into effect in March 2004. The authors found that compared to metropolitan areas outside of California that did not have the regulation, RN wage growth in California increased 12.8 percent more between 2000 and 2006. A more recent study¹⁷⁵ found that real nurse wage rates increased by nearly 10 percent between 2001 and 2017, with changes in rates varying during years of U.S. economic growth and recession. During its strongest growth between 2001 and 2004, real wages increased at an average rate of 2.41 percent annually. Given the uncertainty in growth and increased demands for RNs, we assumed that real wages each year would increase at 2.31 percent.

We provide separate cost estimates for facilities in rural and urban areas since facilities in rural areas would have to meet the requirement 3 years after the final rule publication. Facilities in urban areas, in contrast, would need to meet the requirement 2 years after the final rule publication. This resulted in an average annual cost of approximately \$347 million in 2021 US dollars without considering exemptions.

TABLE 15—ANNUAL COST FOR 24/7 RN REQUIREMENT

Year	Collection of information costs for 24/7 RN (\$ 483.35 nursing services)	24/7 RN requirement (urban facilities)	24/7 RN requirement (rural facilities)	Total cost
1	\$7,461,504.00	\$0.00	\$0.00	\$7,461,504.00
2	7,633,864.74	213,764,107.41	0.00	221,397,972.15
3	7,810,207.02	218,702,058.29	146,603,030.04	373,115,295.34

¹⁷⁴ Mark B. Harless DW, and Spetz J. Spetz. California’s Minimum-Nurse Staffing Legislation and Nurses’ Wages Health Affairs. 2009;28

Supplement 1, w326–w334. doi: 10.1377/hlthaff.28.2.w326.

¹⁷⁵ Barry J. Real wage growth in the U.S. health workforce and the narrowing of the gender pay gap. Human Resources for Health. 2021;19: 105. doi: 10.1186/s12960-021-00647-3.

TABLE 15—ANNUAL COST FOR 24/7 RN REQUIREMENT—Continued

Year	Collection of information costs for 24/7 RN (\$ 483.35 nursing services)	24/7 RN requirement (urban facilities)	24/7 RN requirement (rural facilities)	Total cost
4	7,990,622.80	223,754,075.83	149,989,560.03	381,734,258.67
5	8,175,206.19	228,922,794.98	153,454,318.87	390,552,320.04
6	8,364,053.45	234,210,911.55	156,999,113.64	399,574,078.64
7	8,557,263.08	239,621,183.61	160,625,793.16	408,804,239.85
8	8,754,935.86	245,156,432.95	164,336,248.98	418,247,617.79
9	8,957,174.88	250,819,546.55	168,132,416.34	427,909,137.76
10	9,164,085.62	256,613,478.07	172,016,275.15	437,793,838.85
10 Year Total Cost	82,868,918	2,111,564,589	1,272,156,756	3,466,590,263.09

We are soliciting comments on our assumptions, particularly our assumption that real wage rates for RNs will increase at annual rate of 2.31 percent, and burden estimates. We are also soliciting comments on how the available supply of RNs and potential changes in this supply and demand across different geographical areas over the next 10 years may influence the rule's cost for LTC facilities and other health care providers competing for the same supply of RNs.

(2) RN On Site 24 Hours a Day, 7 Days a Week (24/7 RN)—State Level Analysis

To provide a more in-depth understanding of the financial and staffing effects of the 24/7 RN proposed requirement, we examined its impact for different groups of LTC facilities in each State, as well as Washington DC and Puerto Rico. We first assessed how many full-time RNs LTC facilities would need to hire to meet the proposed requirement. In this analysis, we defined a full-time employee as an employee who worked 1,950 hours per year. This definition was based on a full-time employee working 5 days per week, 8 hours per day, with a 30-minute break (37.5 hours/week × 52 weeks/

year). To meet the 24/7 RN requirement, each facility would need to provide a minimum of 8,760 hours (24 hours/day × 365 days) of RN care annually since we did not include any facility exemptions in these calculations. All calculations used the October 2021 *Care Compare* data set that provides each LTC facility's average daily resident census and HPRD for RNs using the PBJ System data from 2021 Q2.

For each facility, we first calculated the total number of full-time RNs in the facility using the following formula: (facility specific RN HPRD × average daily resident census × 365)/1,950. For example, if a facility had 100 residents and provided an average of 0.2 RN HPRD, then during the year, it will provide a total of 7,300 hours of RN care (0.2 RN HPRD × 100 residents × 365 days = 7,300 hours) yearly and have 3.74 full-time RNs. We then calculated the number of additional full-time RNs needed by subtracting the total hours of RN care that the facility currently provides yearly from the 8,760 hours needed to ensure 24/7 RN coverage and dividing by 1,950, which is the number of hours of yearly care provided by a full-time RN. Continuing with our

example in this section, the LTC facility would need to provide 1,460 additional RN hours per year (8,760 hours – 7,300 hours = 1,460 hours) and hire 0.75 additional full-time RNs.

Table 16 shows the total number of RNs currently employed by LTC facilities in each State's urban and rural areas, the number of full-time RNs and NAs that LTC facilities would need to hire, and the percent increase in RNs that LTC facilities in each State would need to meet the proposed minimum staffing standard barring any exemptions. Oklahoma would need the largest increase in RNs in percentage terms for rural facilities, needing to increase the size of its RN workforce by 27 percent. Meanwhile, for urban facilities, the largest percentage increase in RNs would be in Louisiana at 17.6 percent. Facilities in Texas would need to hire the most overall RNs with the State needing 653 additional full-time RNs. Across the United States, however, the number of RNs that facilities would need to meet the requirement varies widely with several States, including Florida and Illinois, needing to increase the size of their LTC facilities' RN labor force by less than 1 percent.

TABLE 16—CURRENT AND ADDITIONAL FULL-TIME RNS NEEDED PER STATE TO MEET THE 24/7 RN REQUIREMENT [Absent an exemption]

State	Existing full-time RNs in rural areas	Additional RNs needed in rural areas	Percent increase in RNs needed in rural areas	Existing full-time RNs in urban areas	Additional RNs needed in urban areas	Percent increase in RNs needed in urban areas
Alabama	721	6	0.8	1,416	12	0.8
Alaska	108	2	1.9	108	0	0.0
Arizona	60	1	1.7	1,247	12	1.0
Arkansas	487	50	10.3	559	64	11.5
California	150	20	13.3	9,461	280	3.0
Colorado	374	17	4.5	2,026	0	0.0
Connecticut	118	1	0.8	2,145	2	0.1
Delaware	0	0	.....	648	1	0.2
District of Columbia	0	0	.....	468	0	0.0
Florida	286	8	2.8	8,208	21	0.3
Georgia	732	66	9.0	1,469	58	3.9
Hawaii	177	1	0.6	743	0	0.0
Idaho	163	8	4.9	437	5	1.1
Illinois	1,049	68	6.5	5,965	55	0.9
Indiana	1,147	46	4.0	2,611	74	2.8

TABLE 16—CURRENT AND ADDITIONAL FULL-TIME RNS NEEDED PER STATE TO MEET THE 24/7 RN REQUIREMENT—
Continued
[Absent an exemption]

State	Existing full-time RNs in rural areas	Additional RNs needed in rural areas	Percent increase in RNs needed in rural areas	Existing full-time RNs in urban areas	Additional RNs needed in urban areas	Percent increase in RNs needed in urban areas
Iowa	1,458	99	6.8	1,254	37	3.0
Kansas	862	71	8.2	1,054	38	3.6
Kentucky	1,212	8	0.7	1,249	9	0.7
Louisiana	262	49	18.7	762	134	17.6
Maine	403	8	2.0	576	4	0.7
Maryland	125	0	0.0	2,939	9	0.3
Massachusetts	12	0	0.0	3,973	29	0.7
Michigan	1,299	12	0.9	3,050	32	1.0
Minnesota	1,218	19	1.6	2,968	14	0.5
Mississippi	982	21	2.1	509	16	3.1
Missouri	823	114	13.9	1,707	114	6.7
Montana	356	15	4.2	163	6	3.7
Nebraska	630	58	9.2	743	4	0.5
Nevada	61	4	6.6	667	0	0.0
New Hampshire	349	1	0.3	388	7	1.8
New Jersey	0	0	.....	4,756	22	0.5
New Mexico	256	8	3.1	324	4	1.2
New York	827	5	0.6	10,277	21	0.2
North Carolina	800	19	2.4	2,381	46	1.9
North Dakota	386	9	2.3	313	0	0.0
Ohio	1,681	74	4.4	5,169	142	2.7
Oklahoma	437	118	27.0	568	83	14.6
Oregon	158	5	3.2	762	29	3.8
Pennsylvania	1,026	1	0.1	7,575	9	0.1
Puerto Rico	0	0	.....	29	0	0.0
Rhode Island	0	0	.....	947	0	0.0
South Carolina	279	8	2.9	1,325	26	2.0
South Dakota	488	19	3.9	240	4	1.7
Tennessee	683	28	4.1	1,693	25	1.5
Texas	1,138	250	22.0	4,451	403	9.1
Utah	122	2	1.6	926	8	0.9
Vermont	250	4	1.6	72	1	1.4
Virginia	574	6	1.0	1,951	22	1.1
Washington	193	3	1.6	1,967	5	0.3
West Virginia	399	10	2.5	682	2	0.3
Wisconsin	1,142	11	1.0	2,214	20	0.9
Wyoming	245	5	2.0	85	0	0.0
United States	26,708	1,358	5.1	108,220	1,909	1.8

We then assessed the financial cost for facilities to implement the proposed 24/7 RN requirement. To estimate the yearly cost per State, we used the formulas described in section VI.C.1.a.(1) of this proposed rule to first estimate each facility's yearly cost to meet the requirement. We also assumed that LTC facilities exceeding the minimum requirements for RNs would not reduce RNs to the minimum required level or lay off other staff to reduce costs. We then calculated the average cost per resident day by summing the total cost of meeting the requirement for all facilities in the State

and dividing it by the total number of resident days for *all facilities needing additional RNs*. We estimated the average cost per resident day only for facilities needing staff to provide a more complete picture of the burden that the rule would impose on these facilities.

Table 17 provides the yearly Statewide cost to implement the requirement, as well as the average cost per resident day for facilities in rural and urban areas that would need to hire additional RN to meet the requirement. Delaware would have the highest cost per resident day with a single facility that is not meeting the 24/7 RN

requirement and would need to spend \$87.45 per resident day. The highest overall cost occurs in Texas where facilities would need to collectively spend more than \$84 million to meet the minimum staffing requirement. The cost also varied across urban and rural areas. In New Hampshire, LTC facilities in urban areas that need staff would need to spend an average of \$8.95 per resident day to meet the requirement, while in Hawaii, Puerto Rico, and Wyoming these facilities would incur no cost. Nevada would have the highest average cost for rural LTC facilities at \$21.81 per resident day.

TABLE 17—LTC FACILITIES IN EACH STATE NEEDING RNS AND THE AVERAGE COST PER RESIDENT DAY BY RURAL AND URBAN LOCATION TO SATISFY 24/7 RN REQUIREMENT
[Absent an exemption]

State	Yearly state-wide cost (\$ million)	Average cost per resident day (statewide)	Urban LTC facilities needing RNs	Average cost per resident day (urban areas)	Rural LTC facilities needing RNs	Average cost per resident day (rural areas)
Alabama	1.1	\$3.25	12	\$3.86	6	\$2.14
Alaska	0.2	20.75	0	0.00	2	20.75
Arizona	1.1	5.09	12	5.80	1	0.28

TABLE 17—LTC FACILITIES IN EACH STATE NEEDING RNS AND THE AVERAGE COST PER RESIDENT DAY BY RURAL AND URBAN LOCATION TO SATISFY 24/7 RN REQUIREMENT—Continued
[Absent an exemption]

State	Yearly state-wide cost (\$ million)	Average cost per resident day (statewide)	Urban LTC facilities needing RNs	Average cost per resident day (urban areas)	Rural LTC facilities needing RNs	Average cost per resident day (rural areas)
Arkansas	8.8	3.62	64	3.00	50	4.59
California	44.5	7.96	280	7.81	20	10.42
Colorado	1.8	9.13	0	0.00	17	9.13
Connecticut	0.2	6.24	2	1.22	1	19.09
Delaware	0.3	87.45	1	87.45	0	0.00
District of Columbia	0.0	0.00	0	0.00		
Florida	2.4	5.04	21	4.92	8	5.31
Georgia	13.0	4.91	58	4.54	66	5.27
Hawaii	0.1	10.08	0	0.00	1	10.08
Idaho	0.9	6.34	5	8.38	8	5.04
Illinois	14.4	6.95	55	6.15	68	7.86
Indiana	10.9	5.87	74	5.16	46	7.48
Iowa	10.0	6.18	37	5.37	99	6.51
Kansas	9.0	7.14	38	6.72	71	7.41
Kentucky	1.2	4.63	9	3.01	8	7.12
Louisiana	23.1	4.43	134	4.16	49	5.34
Maine	0.8	6.55	4	5.55	8	7.19
Maryland	0.6	6.20	9	6.20	0	0.00
Massachusetts	3.1	7.23	29	7.23	0	0.00
Michigan	4.2	5.38	32	5.89	12	3.69
Minnesota	1.6	5.05	14	5.91	19	4.39
Mississippi	2.3	3.68	16	3.81	21	3.57
Missouri	23.5	5.83	114	5.29	114	6.46
Montana	1.7	6.16	6	4.62	15	6.96
Nebraska	5.6	8.28	4	5.50	58	8.47
Nevada	0.7	21.81	0	0.00	4	21.81
New Hampshire	0.8	8.54	7	8.95	1	6.61
New Jersey	1.7	4.41	22	4.41	0	0.00
New Mexico	0.8	5.00	4	4.57	8	5.34
New York	2.7	5.57	21	5.35	5	6.75
North Carolina	5.6	4.63	46	5.15	19	3.51
North Dakota	0.7	6.94	0	0.00	9	6.94
Ohio	17.9	4.94	142	4.83	74	5.23
Oklahoma	26.2	7.77	83	6.85	118	8.54
Oregon	3.7	8.78	29	8.43	5	11.97
Pennsylvania	0.7	5.75	9	7.44	1	1.65
Puerto Rico	0.0	0.00	0	0.00	0	0.00
South Carolina	2.8	4.77	26	4.73	8	4.93
South Dakota	1.6	5.62	4	7.36	19	5.23
Tennessee	4.2	4.13	25	4.32	28	3.94
Texas	84.6	6.28	403	5.48	250	7.95
Utah	0.7	4.98	8	5.79	2	1.83
Vermont	0.3	5.42	1	0.65	4	5.97
Virginia	2.1	3.92	22	3.87	6	4.12
Washington	0.8	6.76	5	7.00	3	6.41
West Virginia	1.1	6.52	2	5.81	10	6.62
Wisconsin	2.6	7.30	20	7.42	11	7.10
Wyoming	0.4	8.60	0	0.00	5	8.60
United States	349.0	5.97	1,909	5.55	1,358	6.71

Table 18 shows the average cost per resident day to implement the requirement for facilities in each State that would need additional RNs, dividing facilities based on their size into three groups: less than 50 beds, 50

to 100 beds, and more than 100 beds. Within each group of LTC facilities, the cost varied widely by number of beds and State. In West Virginia, the average cost per resident day for facilities that have more than 100 beds and need

additional RNs would be \$0.72, while in North Carolina, the average cost per resident day for facilities with fewer than 50 beds would be \$29.19.

TABLE 18—NUMBER OF LTC FACILITIES IN EACH STATE NEEDING TO HIRE RNS AND AVERAGE COST PER RESIDENT DAY BY FACILITY SIZE TO SATISFY 24/7 RN REQUIREMENT
[Absent an exemption]

State	LTC facilities needing RNs	Yearly statewide cost (\$ million)	Average cost per resident day (statewide)	Cost < 50 beds	Cost 50 to 100 beds	Cost > 100 beds
Alabama	18	\$1.10	\$3.25	\$0.94	\$3.59	\$2.09
Alaska	2	0.20	20.75	20.75	0.00	0.00
Arizona	13	1.10	5.09	11.17	5.02	4.23
Arkansas	114	8.80	3.62	0.00	4.63	2.75
California	300	44.50	7.96	17.35	6.39	3.33

TABLE 18—NUMBER OF LTC FACILITIES IN EACH STATE NEEDING TO HIRE RNS AND AVERAGE COST PER RESIDENT DAY BY FACILITY SIZE TO SATISFY 24/7 RN REQUIREMENT—Continued
[Absent an exemption]

State	LTC facilities needing RNs	Yearly statewide cost (\$ million)	Average cost per resident day (statewide)	Cost – <50 beds	Cost – 50 to 100 beds	Cost >100 beds
Colorado	17	1.80	9.13	15.46	5.82	5.67
Connecticut	3	0.20	6.24	14.21	0.00	0.52
District of Columbia	0	0.00	0.00	0.00	0.00	0.00
Delaware	1	0.30	87.45	0.00	87.45	0.00
Florida	29	2.40	5.04	11.73	4.14	2.25
Georgia	124	13.00	4.91	13.29	5.37	3.42
Hawaii	1	0.10	10.08	10.08	0.00	0.00
Idaho	13	0.90	6.34	7.54	4.57	6.57
Illinois	123	14.40	6.95	13.93	8.19	4.02
Indiana	120	10.90	5.87	12.74	5.69	2.33
Iowa	136	10.00	6.18	7.92	4.85	2.24
Kansas	109	9.00	7.14	8.26	5.75	2.62
Kentucky	17	1.20	4.63	3.37	5.41	0.16
Louisiana	183	23.10	4.43	10.25	7.00	3.85
Maine	12	0.80	6.55	6.55	6.56	0.00
Maryland	9	0.60	6.20	6.96	2.13	0.00
Massachusetts	29	3.10	7.23	12.58	7.42	2.06
Michigan	44	4.20	5.38	11.66	4.50	2.81
Minnesota	33	1.60	5.05	5.61	3.97	0.00
Mississippi	37	2.30	3.68	9.72	3.25	1.50
Missouri	228	23.50	5.83	11.26	7.32	3.61
Montana	21	1.70	6.16	12.26	3.78	8.19
Nebraska	62	5.60	8.28	10.60	6.54	4.94
Nevada	4	0.70	21.81	24.40	17.35	0.00
New Hampshire	8	0.80	8.54	12.34	6.50	4.07
New Jersey	22	1.70	4.41	16.27	2.60	2.06
New Mexico	12	0.80	5.00	7.70	4.13	5.28
New York	26	2.70	5.57	6.83	7.70	1.77
North Carolina	65	5.60	4.63	29.19	3.66	1.52
North Dakota	9	0.70	6.94	6.42	11.09	0.00
Ohio	216	17.90	4.94	9.75	4.33	3.71
Oklahoma	201	26.20	7.77	18.00	9.45	5.09
Oregon	34	3.70	8.78	12.43	7.35	9.33
Pennsylvania	10	0.70	5.75	9.19	3.19	1.65
Puerto Rico	0	0.00	0.00	0.00	0.00	0.00
South Carolina	34	2.80	4.77	10.48	4.78	1.76
South Dakota	23	1.60	5.62	7.27	2.54	0.00
Tennessee	53	4.20	4.13	12.27	4.54	2.01
Texas	653	84.60	6.28	10.93	8.11	5.01
Utah	10	0.70	4.98	3.58	6.01	0.00
Vermont	5	0.30	5.42	9.82	2.01	0.00
Virginia	28	2.10	3.92	12.31	3.44	0.73
Washington	8	0.80	6.76	14.04	6.41	1.42
West Virginia	12	1.10	6.52	13.74	3.98	0.72
Wisconsin	31	2.60	7.30	13.32	5.52	9.19
Wyoming	5	0.40	8.60	17.49	2.22	0.00
United States	1,850	349.0	5.97	11.17	6.25	4.07

In Table 19, we calculated the average cost by State for facilities needing staff to meet the minimum staffing requirement based on whether the facility accepted patients with Medicare, Medicaid, or both Medicare

and Medicaid. The highest per resident day cost would be for 14 Medicaid-only facilities in Illinois that would need to spend an average of \$29 per resident day to meet the staffing requirement. The lowest per resident day cost for

facilities needing staff would be for a single Medicaid-only facility in South Dakota that would need to spend \$0.33 per resident day to meet the requirement.

TABLE 19—NUMBER OF LTC FACILITIES IN STATE NEEDING TO HIRE STAFF AND AVERAGE COST PER RESIDENT DAY BY MEDICARE, MEDICAID, AND DUAL ACCEPTANCE STATUS TO SATISFY 24/7 RN REQUIREMENT
[Absent exemption]

State	Medicaid only facilities needing RNs	Medicaid only facilities cost per resident day	Medicare only facilities needing RNs	Medicare only facilities cost per resident day	Medicare and Medicaid facilities needing RNs	Medicare and Medicaid facilities cost per resident day
Alabama	2	\$5.10	1	\$0.94	15	\$3.14
Alaska	0	0.00	0	0.00	2	20.75
Arizona	0	0.00	2	34.70	10	3.75
Arkansas	1	3.76	0	0.00	111	3.61
California	11	9.11	13	20.26	273	7.54
Colorado	3	23.37	0	0.00	13	6.41

TABLE 19—NUMBER OF LTC FACILITIES IN STATE NEEDING TO HIRE STAFF AND AVERAGE COST PER RESIDENT DAY BY MEDICARE, MEDICAID, AND DUAL ACCEPTANCE STATUS TO SATISFY 24/7 RN REQUIREMENT—Continued
[Absent exemption]

State	Medicaid only facilities needing RNs	Medicaid only facilities cost per resident day	Medicare only facilities needing RNs	Medicare only facilities cost per resident day	Medicare and Medicaid facilities needing RNs	Medicare and Medicaid facilities cost per resident day
Connecticut	0	0.00	0	0.00	3	6.24
Delaware	0	0.00	1	87.45	0	0.00
District of Columbia	0	0.00	0	0.00	0	0.00
Florida	0	0.00	2	10.71	24	3.81
Georgia	1	26.52	2	34.37	121	4.75
Hawaii	0	0.00	0	0.00	1	10.08
Idaho	0	0.00	1	1.86	12	6.68
Illinois	10	5.35	0	0.00	113	7.10
Indiana	4	7.88	2	20.15	112	5.50
Iowa	2	5.26	1	12.90	129	6.09
Kansas	19	10.72	0	0.00	89	6.52
Kentucky	0	0.00	1	0.68	15	4.78
Louisiana	0	0.00	6	6.74	170	4.48
Maine	0	0.00	0	0.00	10	5.38
Maryland	0	0.00	4	7.68	4	5.23
Massachusetts	0	0.00	2	10.03	25	6.58
Michigan	1	14.48	0	0.00	42	5.42
Minnesota	3	8.26	0	0.00	28	4.75
Mississippi	5	4.45	1	23.67	31	3.31
Missouri	6	11.30	2	3.08	219	5.68
Montana	0	0.00	0	0.00	21	6.16
Nebraska	5	13.34	0	0.00	53	7.28
Nevada	0	0.00	0	0.00	4	21.81
New Hampshire	0	0.00	0	0.00	8	8.54
New Jersey	0	0.00	2	5.28	19	4.38
New Mexico	1	5.96	0	0.00	11	4.95
New York	0	0.00	0	0.00	26	5.57
North Carolina	0	0.00	8	70.04	56	3.24
North Dakota	0	0.00	0	0.00	9	6.94
Ohio	0	0.00	4	12.33	208	4.81
Oklahoma	5	18.96	1	0.01	191	7.58
Oregon	3	4.27	2	23.40	29	8.89
Pennsylvania	0	0.00	2	21.85	8	3.66
Puerto Rico	0	0.00	0	0.00	0	0.00
Rhode Island	0	0.00	0	0.00	0	0.00
South Carolina	0	0.00	10	12.96	23	3.43
South Dakota	4	5.18	0	0.00	19	5.70
Tennessee	4	14.91	2	4.78	47	3.51
Texas	14	9.00	11	9.40	620	6.18
Utah	2	3.04	1	8.08	7	5.34
Vermont	0	0.00	0	0.00	5	5.42
Virginia	4	7.68	3	2.82	20	2.88
Washington	0	0.00	0	0.00	8	6.76
West Virginia	3	19.82	0	0.00	7	5.00
Wisconsin	1	26.97	2	12.89	27	6.73
Wyoming	0	0.00	0	0.00	5	8.60
United States	114	9.22	89	13.44	3,003	5.72

(3) Minimum Nurse Staffing Requirement of at Least 0.55 RN and 2.45 NA HPRD

To estimate the incremental impact of the minimum nurse staffing requirement of 0.55 RN and 2.45 NA HPRD, we first estimated the industry's aggregate annual cost for nurse staff (RNs, LPNs/LVNS, and NAs) at current staffing levels. We then estimated the aggregate annual cost for nurse staff (RNs, LPNs/LVNs, and NAs) for all facilities to meet the minimum requirement. As discussed above, we note that the minimum staffing requirements are applied independent of a facility's individual case-mix, meaning the expected costs to a facility are based solely on the cost of facilities adding

additional staff to meet the 0.55 RN and 2.45 NA HPRD based on the facility's current staffing data, regardless of the facility's case-mix. Finally, we calculated the requirement's expected cost to the industry by subtracting the industry's current nurse staff cost from the estimated nurse staff cost for all facilities to meet the minimum requirement (Nurse Staff Cost for All Facilities to Meet Minimum Requirement—All Facilities' Current Nurse Staff Cost). To measure the current nurse staffing cost to the industry, we estimated the total number of nurse staff currently employed in LTC facilities and their loaded respective labor wages. This study used the 2021 SNF—Medicare Cost Report

dataset to find the total of facilities, the total number of reported LTC specific nurse-type staff and their loaded annual salaries, defined as salary and fringe benefits. Using this dataset, we were able to estimate the aggregate total nurse staffing salary costs and the cost per facility.

To estimate the nurse staffing cost by staff type, that is, RNs, LPNs/LVNs, NAs, per resident census we used the October 2021 *Care Compare* data set that calculates average hours per resident day (HPRD) for each nurse type using the PBJ System data from 2021 Q2. Hours per resident day was defined as the average hours of care that each resident in the facility receives from that nurse type. For example, a facility that

had an average HPRD of 0.5 for RNs would provide, on average, 0.5 hours (30 minutes) of RN care for each resident. We linked this dataset using the facility unique ID variable with the 2021 SNF—Medicare Cost Report data set to create a complete dataset. Using this combined dataset, we were also able to view the impact by staff type per resident census as well as the impact by LTC facility characteristics such as facility ownership, bed size, Five-Star Quality Rating System staffing ratings, payer mix, and location. This complete dataset helped provide an understanding of which types of LTC facilities would bear the largest cost burden of a new Federal minimum staffing requirement.

Using the above dataset, we estimated each facility's current total annual salary costs for each nurse type (RN, LPN/LVN, NA) as follows: [facility specific nurse type] loaded hourly wage $\times$ [facility specific nurse type] reported HPRD $\times$ facility-level average daily facility resident census $\times$ 365. For example, if a facility reported an average loaded hourly wage of \$44 for its RNs, an average of 0.4 RN HPRD, and an average daily resident census of 100, its estimated annual salary costs for RNs would be calculated as: $\$44 \times 0.4 \times 100 \times 365 = \$642,400$. Taking this example further, if this same facility reported a loaded average hourly wage of \$21 for its NAs, an average of 2.1 NA HPRD, and an average daily resident census of 100, its estimated annual salary costs for NAs would be calculated as: $\$21 \times 2.1 \times 100 \times 365 = \$1,609,650$. If this facility only employed RNs and NAs as part of its total nurse staff, then the facility's current total nurse staff cost would be \$2,252,050 ($\$642,400 + \$1,609,650 = \$2,252,050$). To estimate the aggregate current nurse staff cost across all facilities, the next step was to sum all facilities' current total (RN, LPN/LVN, and NA) nurse staff cost for an overall industry nurse staff cost of \$43.4 billion.¹⁷⁶ To estimate the cost of the minimum nurse staffing requirement, we subtracted the total current nurse staff cost per facility from the total nurse staff cost per facility with the minimum nurse staffing standard. The formula applied to calculate each facility's cost

of meeting the requirement per specific nurse type was: [facility specific nurse type] hourly wage $\times$ [[facility specific nurse type] required HPRD – [facility specific nurse type] reported HPRD] $\times$ facility level average daily resident census $\times$ 365. Using the same LTC facility example from the paragraph above where the facility had an average of 0.4 RN HPRD and 2.1 NA HPRD, for this LTC facility to comply it would need to increase its RN HPRD from 0.4 to 0.55 and NA HPRD from 2.1 to 2.45. The cost for this requirement on this facility would thus be \$509,175 ($(\$44 \times (0.55 - 0.4) \times 100 \times 365) + (\$21 \times (2.45 - 2.1) \times 100 \times 365) = \$509,175$).

When LTC facilities hire RNs to meet the 24/7 RN requirement, the hours these RNs work will also count toward the 0.55 RN HPRD requirement. To avoid overestimating the number of RNs that LTC facilities will need to hire and the cost to hire them, if a LTC facility has less than 0.55 RN HPRD, we subtracted any cost that the facility would incur to meet the 24/7 RN requirement up to the point where the LTC facility will meet the 0.55 RN HPRD requirement using the following formula: [facility specific cost to meet 0.55 RN and 2.45 NA HPRD Requirement] – [Facility Cost to Meet 24/7 RN Requirement].

Once we apply this formula to each facility in our dataset, we summed each facility's total cost to obtain the requirement cost to the industry of approximately \$4.23 billion.

This \$4.23 billion estimate assumed that LTC facilities would respond to the minimum nurse staffing requirement by increasing their RN and their NA staffing levels to the minimum necessary levels, without reducing other staff, such as administrative staff. We also assumed that LTC facilities would not obtain exemptions from the minimum staffing requirement. Finally, we assumed LTC facilities that were above the minimum staffing requirements for RNs and NAs would not decrease their current staffing levels and that owners of LTC chain facilities would not shift staff from facilities above the minimum proposed requirement to facilities below the minimum proposed requirement.¹⁷⁷

If LTC facilities covered under this proposed rule reduced other staff not covered by the rule, owners of LTC chain facilities shifted RN and NAs to other facilities below the requirements, or if LTC facilities obtained exemptions from the minimum staffing requirements the \$4.23 billion estimate may decline significantly. Any reduction in other staff, however, could also impose costs on residents due to reductions in support activities, such as housekeeping and food service, that contribute to quality of life in the LTC facility. As such, we seek comments on all the assumptions used in these cost models.

Table 20 summarizes the estimated total cost for the comprehensive minimum nurse staffing requirement which includes any associated collection of information costs as described in section IV. Collection of Information Requirements, but not the regulatory review costs which we discuss in more detail later in this section. To account for real growth in RN and NA wages over time, we used the same assumption that we used to estimate the cost of the 24/7 RN requirement. More specifically, we assumed that real wages for RNs and NAs needed to meet the proposed 0.55 RN and 2.45 HPRD requirement, as well as collection of information costs, would increase at 2.31 percent annually. Since rural and urban LTC facilities have different phase-in periods to meet the 24/7 RN (2 years for facilities in urban areas and 3 years for facilities in rural areas) and the 0.55 RN and 2.45 NA HPRD requirements (3 years for facilities in urban areas and 5 years for facilities in rural areas) we provided separate cost estimates for facilities located in each area. Over a 10-year period, we anticipate an average annual cost of approximately \$4.06 billion.

compared with a benefits estimate that also reflects net staffing changes; a quantitative approach to such benefits might extrapolate from reduced-form estimates of the effects on patients of other jurisdictions' nursing staffing requirements. By contrast, if benefits assessment reflects an explicit or implicit assumption that new nursing staff spend all their time on nursing activities—not newly covering any of the duties that would have been performed by lost housekeeping, food service or activities staff—then costs from a society-wide perspective are approximated by the (gross) new nursing staffing costs. In other words, in the latter case, a focus only on payroll effects would omit the harms to consumer satisfaction and conditions for remaining staff due to reductions in housekeeping, food service and activities.

¹⁷⁶ Calculated as the sum of reported salary costs for total nurse staff across all LTC facilities in the study sample. More specifically, Total annual salary costs for all LTC facilities = $\sum_{i=1}^{14,668} \text{Annual salary costs for total nurse staff}_i$.

¹⁷⁷ Appropriate accounting of costs depends on consistency with the benefits to which they are compared. The overall change in staffing cost (increasing nursing staff cost, net of housekeeping, food service and activities-staff costs—which are potentially decreasing) would appropriately be

TABLE 20—ANNUAL COST FOR THE COMPREHENSIVE MINIMUM NURSE STAFFING REQUIREMENT

Year	Collection of information costs for 24/7 RN (\$ 483.35 nursing services)	Collection of information costs for facility assessment (\$ 483.71 facility assessment)	24/7 RN requirement (urban facilities)	24/7 RN requirement (rural facilities)	0.55 RN and 2.45 NA HPRD requirement (urban facilities)	0.55 RN and 2.45 NA HPRD requirement (rural facilities)	Total cost
1	\$7,461,504.00	\$24,176,448.00	\$0.00	\$0.00	\$0	\$0	\$31,637,952
2	7,633,864.74	24,734,923.95	213,764,107.41	0.00	0	0	246,132,896
3	7,810,207.02	25,306,300.69	218,702,058.29	146,603,030.04	3,662,915,945	0	4,061,337,541
4	7,990,622.80	25,890,876.24	223,754,075.83	149,989,560.03	3,747,529,303	0	4,155,154,438
5	8,175,206.19	26,488,955.48	228,922,794.98	153,454,318.87	3,834,097,230	803,377,179	5,054,515,685
6	8,364,053.45	27,100,850.35	234,210,911.55	156,999,113.64	3,922,664,876	821,935,192	5,171,274,997
7	8,557,263.08	27,726,879.99	239,621,183.61	160,625,793.16	4,013,278,435	840,921,895	5,290,731,450
8	8,754,935.86	28,367,370.92	245,156,432.95	164,336,248.98	4,105,985,167	860,347,191	5,412,947,346
9	8,957,174.88	29,022,657.19	250,819,546.55	168,132,416.34	4,200,833,424	880,221,211	5,537,986,430
10	9,164,085.62	29,693,080.57	256,613,478.07	172,016,275.15	4,297,872,676	900,554,321	5,665,913,916
10 Year Total Cost	82,868,918	268,508,343	2,111,564,589	1,272,156,756	31,785,177,057	5,107,356,989	40,627,632,652

This proposed rule does not include any provisions requiring Medicare, Medicaid or other non-Medicare/Medicaid payors to increase payment rates to providers to meet any or all the expected costs of the proposed requirements. Below, however, we provide estimates of how much of this estimated cost would be due to residents whose care is covered by three payor groups: Medicaid, Medicare, and other non-Medicare/Medicaid payors.

Table 21 provides annual estimates and a 10-year total estimate for the share of facilities' increased staffing costs that would be due to residents utilizing Medicaid. These estimates excluded all collection of information costs. Over a 10-year period, the average annual cost for facilities' due to residents whose stay is paid for by Medicaid would be approximately \$2.69 billion. If Medicaid were to fully cover these costs (although there is no expectation that it will), then States would pay \$1.1 billion and the Federal government would pay \$1.57 billion.

To build these estimates, we used a scenario where facilities' increased cost to meet the new minimum staffing and 24/7 RN requirement for residents utilizing Medicaid was equal to share of residents in the facility using Medicaid. More formally, we first calculated each facility's increased cost for these residents using the following formula: Increased Facility Cost for Medicaid Residents = (minimum staffing requirement cost + 24/7 RN staffing requirement cost) × (% facility residents

covered by Medicaid). We then summed all facilities' share of increased costs that was due to residents utilizing Medicaid to the obtain a total estimated cost of \$26.9 billion over 10 years.

To provide further details about the facilities' share of the total minimum staffing and 24/7 RN requirements' cost that is due to resident utilizing Medicaid, we broke down the Medicaid costs into how the costs would typically be divided between the Federal and State Medicaid programs. For these estimates, we assumed that the Federal Medicaid share would be equal to the State's FMAP (Federal Medical Assistance Percentage), while each State's share would be equal to the remaining amount (1–FMAP). Using this strategy, we estimated that States' portion of the Medicaid cost would be approximately \$11.1 billion over 10 years, while the Federal government's portion of the Medicaid cost would be \$15.7 billion.

Table 22 provides annual estimates and a 10-year estimate for the share of facilities' increased labor costs that would be due to residents whose care was covered by Medicare and other non-Medicare/Medicaid payors. These estimates continue to exclude all collection of information costs. Over a 10-year period, facilities' annual cost to meet the proposed requirements would be approximately \$454 million for residents utilizing Medicare and \$886 million for residents utilizing other non-Medicare/Medicaid payors.

To obtain these estimates, we used a scenario where the cost facilities would incur to meet the new minimum staffing and 24/7 RN requirements for residents utilizing Medicare and other non-Medicare/Medicaid payors would be equal to the share of residents covered by Medicare and non-Medicare/Medicaid payors in each facility.

To obtain the total cost due to residents utilizing Medicare, we first calculated each facility's increased staffing cost for residents utilizing Medicare using the following formula: Increased Facility Cost for Medicare Residents = (minimum staffing requirement cost + 24/7 RN staffing requirement cost) × (% facility residents covered by Medicare). We then summed all facilities' increased costs that was due to residents utilizing Medicare to the obtain a total estimated cost for Medicare of \$4.54 billion over 10 years. To obtain the total cost due to residents utilizing other non-Medicare/Medicaid payors, we first calculated each facility's increased cost for residents using a non-Medicare/Medicaid payor using the following formula: Increased Facility Cost for Non-Medicare/Medicaid Payors = (minimum staffing requirement cost + 24/7 RN staffing requirement cost) × (% facility residents covered by non-Medicare/Medicaid Payors). We then summed all facilities' increased costs that were due to residents utilizing other Non-Medicare/Medicaid payors to obtain a total estimated cost of \$8.86 billion over 10 years.

TABLE 21: Cost of Comprehensive Minimum Nurse Staffing Requirement Due to Residents Whose Stay is Covered by Medicaid

Year	24/7 RN State Medicaid Cost (Rural Facilities)	24/7 RN Federal Medicaid Cost (Rural Facilities)	24/7 RN State Medicaid Cost (Urban Facilities)	24/7 RN Federal Medicaid Cost (Urban Facilities)	0.55 RN and 2.45 NA HPRD State Medicaid Cost (Rural Facilities)	0.55 RN and 2.45 NA HPRD Federal Medicaid Cost (Rural Facilities)	0.55 RN and 2.45 NA HPRD State Medicaid Cost (Urban Facilities)	0.55 RN and 2.45 NA HPRD Federal Medicaid Cost (Urban Facilities)	Total State Medicaid Cost	Total Federal Medicaid Cost
1	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2	\$0	\$0	\$54,253,616	\$83,512,408	\$0	\$0	\$0	\$0	\$54,253,616	\$83,512,408
3	\$36,575,549	\$62,192,075	\$55,506,875	\$85,441,545	\$0	\$0	\$1,034,037,099	\$1,407,719,404	\$1,126,119,523	\$1,555,353,025
4	\$37,420,445	\$63,628,712	\$56,789,084	\$87,415,245	\$0	\$0	\$1,057,923,356	\$1,440,237,723	\$1,152,132,884	\$1,591,281,679
5	\$38,284,857	\$65,098,535	\$58,100,912	\$89,434,537	\$206,219,500	\$339,553,949	\$1,082,361,385	\$1,473,507,214	\$1,384,966,654	\$1,967,594,235
6	\$39,169,237	\$66,602,312	\$59,443,043	\$91,500,475	\$210,983,171	\$347,397,645	\$1,107,363,933	\$1,507,545,231	\$1,416,959,384	\$2,013,045,662
7	\$40,074,046	\$68,140,825	\$60,816,177	\$93,614,136	\$215,856,882	\$355,422,530	\$1,132,944,040	\$1,542,369,525	\$1,449,691,146	\$2,059,547,017
8	\$40,999,757	\$69,714,878	\$62,221,031	\$95,776,622	\$220,843,176	\$363,632,791	\$1,159,115,048	\$1,577,998,261	\$1,483,179,011	\$2,107,122,553
9	\$41,946,851	\$71,325,292	\$63,658,336	\$97,989,062	\$225,944,653	\$372,032,708	\$1,185,890,605	\$1,614,450,021	\$1,517,440,446	\$2,155,797,084
10	\$42,915,824	\$72,972,906	\$65,128,844	\$100,252,610	\$231,163,975	\$380,626,664	\$1,213,284,678	\$1,651,743,817	\$1,552,493,321	\$2,205,595,996
10 Year Total Cost	\$317,386,566	\$539,675,535	\$535,917,918	\$824,936,640	\$1,311,011,357	\$2,158,666,287	\$8,972,920,145	\$12,215,571,196	\$11,137,235,986	\$15,738,849,658

TABLE 22: Cost of Comprehensive Minimum Nurse Staffing Requirement due to Residents whose Stay is Covered by Medicare and Other non-Medicare/Medicaid Payors

Year	24/7 RN Medicare Cost (Rural Facilities)	24/7 RN Medicare Costs (Urban Facilities)	0.55 RN and 2.45 NA HPRD Medicare Cost (Rural Facilities)	0.55 RN and 2.45 NA HPRD Medicare Cost (Urban Facilities)	24/7 RN Other Non- Medicare/Me dicaid Payors Cost (Rural Facilities)	24/7 RN Other Non- Medicare/Me dicaid Payors Costs (Urban Facilities)	0.55 RN and 2.45 NA HPRD Other Non- Medicare/Medica id Payors Cost (Rural Facilities)	0.55 RN and 2.45 NA HPRD Other Non- Medicare/Medica id Payors Cost (Urban Facilities)	Total Cost Due to Residents whose Stay is Covered by Medicare	Total Cost Due to Residents whose Stay is Covered by Other non- Medicare/Med icaid Payors'
1	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2	\$0	\$26,252,999	\$0	\$0	\$0	\$49,745,083	\$0	\$0	\$26,252,999	\$49,745,083
3	\$12,665,283	\$26,859,443	\$0	\$417,268,633	\$35,170,123	\$50,894,195	\$0	\$803,890,809	\$456,793,359	\$889,955,126
4	\$12,957,851	\$27,479,897	\$0	\$426,907,539	\$35,982,552	\$52,069,851	\$0	\$822,460,686	\$467,345,286	\$910,513,089
5	\$13,257,177	\$28,114,682	\$87,130,889	\$436,769,103	\$36,813,749	\$53,272,664	\$170,472,841	\$841,459,528	\$565,271,851	\$1,102,018,783
6	\$13,563,418	\$28,764,131	\$89,143,613	\$446,858,469	\$37,664,147	\$54,503,263	\$174,410,764	\$860,897,243	\$578,329,631	\$1,127,475,417
7	\$13,876,733	\$29,428,583	\$91,202,830	\$457,180,900	\$38,534,189	\$55,762,288	\$178,439,653	\$880,783,970	\$591,689,045	\$1,153,520,099
8	\$14,197,285	\$30,108,383	\$93,309,615	\$467,741,778	\$39,424,329	\$57,050,397	\$182,561,609	\$901,130,079	\$605,357,062	\$1,180,166,413
9	\$14,525,243	\$30,803,887	\$95,465,067	\$478,546,614	\$40,335,031	\$58,368,261	\$186,778,782	\$921,946,184	\$619,340,811	\$1,207,428,258
10	\$14,860,776	\$31,515,456	\$97,670,311	\$489,601,040	\$41,266,770	\$59,716,568	\$191,093,372	\$943,243,141	\$633,647,583	\$1,235,319,850
Total 10 Year Cost	\$109,903,766	\$259,327,462	\$553,922,325	\$3,620,874,076	\$305,190,890	\$491,382,570	\$1,083,757,020	\$6,975,811,640	\$4,544,027,628	\$8,856,142,119

As previously stated, this rule does not include any provisions requiring

Medicare to increase payment rates to providers to meet any or all the

expected costs of the proposed requirements. With specific regards to

the SNF PPS, we do not believe this rule will have meaningful impacts on SNF PPS payment rates. Under section 1888(e)(4) of the Act, the SNF PPS uses per diem Federal payment rates based on mean SNF costs in a base year (FY 1995) updated for inflation to the first effective period of the PPS. Section 1888(e)(5)(A) of the Act requires us to establish a SNF market basket that reflects changes over time in the prices of an appropriate mix of goods and services included in covered SNF services. The SNF market basket is used to compute the market basket percentage increase that is used to update the SNF Federal rates on an annual basis, as required by section 1888(e)(4)(ii)(IV) of the Act. While this rule may have minimal impacts on the calculation of the SNF market basket percentage, which could impact annual updates to the SNF PPS rates, we believe that these impacts would be limited.

Additionally, under section 1888(e)(4)(G)(i) of the Act, the Federal rate also incorporates an adjustment to account for facility case-mix, using a classification system that accounts for the relative resource utilization of different patient types. The statute specifies that the adjustment is to reflect both a resident classification system that the Secretary establishes to account for the relative resource use of different patient types, as well as resident assessment data and other data that the Secretary considers appropriate. While we understand that increased staffing will have an impact on facility costs, we do not believe that these additional costs fall within the scope of relative resource utilization of different patient types. Since this rule impacts the facility as a whole, rather than individual patient types, we do not believe that the rule would impact adjustments made under the SNF PPS to account for facility case-mix.

Finally, section 1888(e)(4)(G)(ii) of the Act requires that we adjust the Federal rates to account for differences in area wage levels, using a wage index that the Secretary determines appropriate. Since the inception of the SNF PPS, we have used hospital inpatient wage data in developing a wage index to be applied to SNFs. As noted most recently in the FY 2024 SNF PPS final rule (88 FR 53211), we continue to use this practice in FY 2024. Given that the wage index used under the SNF PPS is based on analysis of hospital wages and staffing hours and because this rule will impact only on SNF wages and staffing hours, we do not anticipate that the impacts of this rule will be reflected in the SNF PPS wage index. We understand that, as

discussed in the FY 2024 SNF PPS final rule (88 FR 53212), there have been comments encouraging CMS to develop a wage index adjustment under the SNF PPS that uses SNF wages and staffing hours as the basis for calculating the adjustment. However, as we state in that rule,

We note that section 315 of the Medicare, Medicaid, and SCHIP Benefits Improvement and Protection Act of 2000 (BIPA) (Pub. L. 106–554, enacted December 21, 2000) gave the Secretary the discretion to establish a geographic reclassification procedure specific to SNFs, but only after collecting the data necessary to establish a SNF PPS wage index that is based on wage data from nursing homes. To date, this has proven to be unfeasible due to the volatility of existing SNF wage data and the significant amount of resources that would be required to improve the quality of the data. More specifically, auditing all SNF cost reports, similar to the process used to audit inpatient hospital cost reports for purposes of the IPPS wage index, would place a burden on providers in terms of recordkeeping and completion of the cost report worksheet. Adopting such an approach would require a significant commitment of resources by CMS and the Medicare Administrative Contractors (MACs), potentially far in excess of those required under the IPPS, given that there are nearly five times as many SNFs as there are inpatient hospitals. While we continue to believe that the development of such an audit process could improve SNF cost reports, which is determined to be adequately accurate for cost development purposes, in such a manner as to permit us to establish a SNF-specific wage index, we do not believe this undertaking is feasible. (88 FR 53212).

We solicit comment on these assumptions regarding the impact of this rule on the rates paid under the SNF PPS.

Sources of uncertainty about the cost estimate for the 24/7 RN and 0.55 RN and 2.45 NA HPRD requirement include:

The cost estimate assumed that LTC facilities needing RNs and/or NAs to meet these requirements will hire them without laying off other direct care or support staff. Some research,^{178 179} however, has found that when States implemented minimum hour per day requirements for direct care staff (RNs, LPNs, and NAs), LTC facilities responded by reducing indirect care staff, such as housekeeping, food

service, and activities staff. If LTC facilities responded to the 24/7 RN and 0.55 and 2.45 NA requirement in similar ways, then a facility's total cost for the requirements could decline significantly relative to what was presented above (see earlier discussion about appropriate accounting of costs depending on consistency between benefit and cost analytic approaches).

The cost estimate assumed that real wages for RNs and NAs would grow at an annual rate of 2.31 percent due to increasing demand for these direct care staff. Differences in demand for RNs and NAs across geographical areas, however, could lead to wages in different areas to increase at different rates, altering the cost for LTC facilities.

The 24/7 cost estimate assumed that RNs would make the average hourly rate for RNs in the facility. If, however, LTC facilities needed to hire RNs to work overnight shifts, which typically command a higher hourly rate, the costs for LTC facilities to meet this requirement could increase.

The cost estimate assumed that no LTC facilities would obtain exemptions from the 0.55 RN and 2.45 NA HPRD requirements, although some facilities could obtain an exemption. Our analysis suggests that using the criteria of being located in an area with a medium staffing shortage, which is defined as the area having an RN and/or NA to population ratio that is 20 percent below the national average, or being located 20-miles from the nearest LTC facility, up to 24 percent of LTC facilities would meet the initial criteria for an exemption from the 2.45 NA HPRD requirement while 28 percent would be eligible for an exemption from the 0.55 RN HPRD requirement. Depending on the number of facilities that obtained an exemption and their expected cost to meet the HPRD requirement, the total cost of the rule for LTC facilities could decline significantly.

In addition to uncertainty about the magnitude of costs, there is uncertainty about whether LTC facilities or other entities in society would bear the cost of meeting the minimum staffing and 24/7 RN requirements. Payors might increase payment rates to meet some or all the rule's cost, which could reduce the cost for LTC facilities relative to what is estimated above.

We welcome any comments regarding the methodology that resulted in an estimated cost of approximately \$40.63 billion over a 10-year period for the Comprehensive Minimum Nurse Staffing Requirement and on the potential State and Federal Medicaid impact, as well as the potential impact

¹⁷⁸ Thomas, Kali S., Kathryn Hyer, Ross Andel, and Robert Weech-Maldonado. The Unintended Consequences of Staffing Mandates in Florida Nursing Homes: Impacts on Indirect-Care Staff, 2010, Medicare Care Research and Review, Volume 67, Issue 5, Pages 555–573.

¹⁷⁹ Bowblis, John R., and Kathryn Hyer. Nursing Home Staffing Requirements and Input Substitution: Effects on Housekeeping, Food Service, and Activities Staff, 2013, Health Services Research, Volume 48, Issue 4, Pages: 1539–1550.

on Medicare and other non-Medicare/Medicaid payors. We are also soliciting comments on all the assumptions we used in our estimate, especially how the available supply of RNs and NAs in different areas nationwide may influence the proposed rule's cost for LTC facilities and other health care providers competing for the same supply of RNs and NAs. Finally, we are seeking comments on how LTC chain ownership may lead to a shifting of employees across facilities from those facilities that are exceeding the proposed minimum staffing requirements to those that are below it.

(4) Impact of 0.55 RN and 2.45 NA HPRD Requirement on States

To provide a more in-depth understanding of the financial and staffing effects of the 0.55 RN HPRD and 2.45 NA HPRD proposed minimum requirement, we examined its impact for different groups of LTC facilities in each State, as well as Washington, DC and Puerto Rico. We first assessed how many full-time employees LTC facilities would need to hire to meet the proposed requirement. In this analysis, we defined a full-time employee as an employee who worked 1,950 hours per year. This definition was based on a full-time employee working 5 days per week, 8 hours per day, with a 30-minute break (37.5 hours/week $\times$ 52 weeks/year). We continued to assume that no facilities would obtain exemptions from the minimum staffing requirement. We also continued to subtract any cost that facilities incur or employees they would need to hire to meet the 24/7 RN requirements up to 0.55 RN HPRD. All calculations used the October 2021 *Care*

Compare data set that provided each LTC facility's average daily resident census and HPRD for RNs, LPNs/LVNs and NAs using the PBJ System data from 2021 Q2.

For each facility, we first calculated the total number of full-time RNs, LPN/LVNs, and NAs working in a facility using the following formula: (facility specific care type HPRD $\times$ Average daily resident census $\times$ 365)/1,950. For example, if a facility has 10 residents and provides an average of 0.1 RN HPRD, then during the year, it will provide a total of 365 hours of RN care (0.1 RN HPRD $\times$ 10 residents $\times$ 365 days) yearly and have 0.187 full-time RNs. We then calculated the number of additional RNs needed by subtracting the current average hours per resident day for RNs from the minimum required hours per resident day. Continuing with our example in this section, the LTC facility would need to provide 1,642.5 additional RN hours per year [(0.55 RN HPRD $-$ 0.1 HPRD) $\times$ 10 residents $\times$ 365 days = 1642.5 hours] and hire 0.84 additional full-time RNs.

To calculate the total number of additional NAs needed we subtracted the current average hours per resident day for NAs from the minimum required hours per resident day. For example, if the same facility as previously mentioned with 10 residents provided an average of 2.2 NA HPRD, then to meet the 2.45 HPRD requirement it would need to provide 912.5 additional NA hours per year [(2.45 NA HPRD $-$ 2.2 NA HPRD) $\times$ 10 residents $\times$ 365 days = 912.5 hours] and hire 0.47 (912.5 hours needed/1,950 hours yearly per full-time employee) full-time NAs.

Table 23 shows the total number of RNs and NAs employed by LTC facilities in each State's urban areas, the number of full-time RNs and NAs that LTC facilities would need to hire, and the percent increase in RNs and NAs that LTC facilities in each State would need to meet the proposed minimum staffing standard. Table 24 provides the same information for LTC facilities located in each State's rural areas.

Louisiana would need the largest increase in RNs in percentage terms. The number of full-time RNs in urban LTC facilities would need to increase by nearly 96 percent, while rural LTCs would need to increase the number of RNs by more than 73 percent to meet minimum standard. Facilities in Texas would need to hire the most overall RNs with the State needing 1,615 additional full-time RNs in urban areas and more than 311 RNs in rural areas. Across the United States, however, the number of RNs that facilities would need to hire varies widely, with several States, including Delaware and Hawaii, not needing to hire any RNs to meet the requirement.

Illinois would need the largest percentage increase for NAs in urban areas. The State would need to add nearly 6,000 full-time NAs and increase the overall number of NAs working in LTC facilities by more than 42 percent. Similar to RNs, however, there would be wide variation in the percentage increase in NAs across States. Florida, for example, would need to increase the size of its NA labor force in LTC facilities by less than 2 percent to meet the requirement.

TABLE 23—CURRENT AND ADDITIONAL FULL-TIME RNS AND NAs NEEDED PER STATE TO MEET 0.55 RN AND 2.45 NA HPRD STAFFING REQUIREMENT FOR URBAN LTC FACILITIES

State	Existing full-time RNs	Additional RNs needed	Percent increase in RNs needed	Existing full-time NAs	Additional NAs needed	Percent increase in NAs needed
Alabama	1,416	129	9.1	5,011	922	18.4
Alaska	108	0	0	216	3	1.2
Arizona	1,247	101	8.1	4,036	651	16.1
Arkansas	559	220	39.3	3,775	199	5.3
California	9,461	1,390	14.7	40,659	1,734	4.3
Colorado	2,026	9	0.5	4,687	718	15.3
Connecticut	2,145	122	5.7	6,735	1,136	16.9
Delaware	648	0	0	1,376	259	18.8
District of Columbia	468	0	0	923	45	4.9
Florida	8,208	390	4.8	29,310	414	1.4
Georgia	1,469	443	30.1	6,446	1,996	31
Hawaii	743	0	0	1,289	28	2.2
Idaho	437	1	0.2	1,176	105	8.9
Illinois	5,965	551	9.2	13,944	5,985	42.9
Indiana	2,611	261	10	8,917	2,087	23.4
Iowa	1,254	28	2.2	4,010	367	9.2
Kansas	1,054	51	4.8	3,652	369	10.1
Kentucky	1,249	100	8	3,997	787	19.7
Louisiana	762	730	95.9	6,306	1,225	19.4
Maine	576	3	0.5	1,499	36	2.4
Maryland	2,939	47	1.6	7,572	1,588	21
Massachusetts	3,973	191	4.8	12,156	2,184	18
Michigan	3,050	235	7.7	8,862	2,268	25.6

TABLE 23—CURRENT AND ADDITIONAL FULL-TIME RNS AND NAS NEEDED PER STATE TO MEET 0.55 RN AND 2.45 NA HPRD STAFFING REQUIREMENT FOR URBAN LTC FACILITIES—Continued

State	Existing full-time RNs	Additional RNs needed	Percent increase in RNs needed	Existing full-time NAs	Additional NAs needed	Percent increase in NAs needed
Minnesota	2,968	3	0.1	6,267	573	9.1
Mississippi	509	68	13.3	1,955	319	16.3
Missouri	1,707	442	25.9	7,786	1,504	19.3
Montana	163	4	2.2	487	88	18.1
Nebraska	743	17	2.3	2,313	139	6
Nevada	667	45	6.7	1,796	328	18.3
New Hampshire	388	13	3.4	1,256	168	13.3
New Jersey	4,756	335	7	13,412	2,856	21.3
New Mexico	324	27	8.2	1,184	194	16.4
New York	10,277	745	7.2	32,047	5,904	18.4
North Carolina	2,381	376	15.8	9,175	1,774	19.3
North Dakota	313	1	0.4	1,176	12	1
Ohio	5,169	521	10.1	16,844	4,552	27
Oklahoma	568	203	35.7	3,725	333	8.9
Oregon	762	17	2.3	3,170	14	0.4
Pennsylvania	7,575	242	3.2	20,086	4,917	24.5
Puerto Rico	29	0	0	0	26	.....
Rhode Island	947	14	1.5	2,752	284	10.3
South Carolina	1,325	163	12.3	4,793	794	16.6
South Dakota	240	0	0	618	88	14.2
Tennessee	1,693	230	13.6	6,047	1,495	24.7
Texas	4,451	1,615	36.3	21,663	6,101	28.2
Utah	926	2	0.2	2,012	197	9.8
Vermont	72	4	5	239	24	10.1
Virginia	1,951	344	17.6	6,838	2,148	31.4
Washington	1,967	22	1.1	5,257	311	5.9
West Virginia	682	22	3.2	1,987	431	21.7
Wisconsin	2,214	16	0.7	5,220	619	11.9
Wyoming	85	3	3.4	212	51	23.9
United States	108,220	10,495	9.7	356,871	61,348	17.2

TABLE 24—CURRENT AND ADDITIONAL FULL-TIME RNS AND NAS NEEDED PER STATE TO MEET 0.55 RN AND 2.45 NA HPRD STAFFING REQUIREMENT FOR RURAL LTC FACILITIES

State	Existing full-time RNs	Additional RNs needed	% Increase in RNs needed	Existing full-time NAs	Additional NAs needed	% Increase in NAs needed
Alabama	721	69	9.5	2,884	280	9.7
Alaska	108	0	0	256	0	0
Arizona	60	4	6.4	169	60	35.2
Arkansas	487	115	23.6	2,930	159	5.4
California	150	37	24.5	847	32	3.8
Colorado	374	6	1.5	1,080	89	8.3
Connecticut	118	6	4.6	379	68	18.1
Delaware	0	0	.....	0	0	.....
District of Columbia	0	0	.....	0	0	.....
Florida	286	51	17.9	1,501	23	1.5
Georgia	732	177	24.2	3,147	954	30.3
Hawaii	177	0	0	393	33	8.5
Idaho	163	1	0.6	542	21	3.8
Illinois	1,049	85	8.1	3,519	961	27.3
Indiana	1,147	51	4.5	3,510	740	21.1
Iowa	1,458	29	2	4,789	534	11.1
Kansas	862	10	1.1	3,224	130	4
Kentucky	1,212	70	5.8	4,011	543	13.5
Louisiana	262	192	73.4	2,166	284	13.1
Maine	403	0	0	1,151	5	0.4
Maryland	125	0	0	353	44	12.5
Massachusetts	12	0	0	40	0	0
Michigan	1,299	19	1.5	3,624	273	7.5
Minnesota	1,218	1	0.1	3,417	113	3.3
Mississippi	982	70	7.1	3,544	515	14.5
Missouri	823	133	16.2	3,959	639	16.1
Montana	356	5	1.5	996	125	12.6
Nebraska	630	13	2.1	2,380	129	5.4
Nevada	61	0	0	189	23	12.1
New Hampshire	349	8	2.4	1,206	132	10.9
New Jersey	0	0	.....	0	0	.....
New Mexico	256	7	2.5	796	93	11.7
New York	827	37	4.5	2,609	824	31.6
North Carolina	800	92	11.5	2,945	562	19.1
North Dakota	386	6	1.7	1,331	53	4
Ohio	1,681	109	6.5	5,264	1,395	26.5
Oklahoma	437	94	21.4	3,040	196	6.4
Oregon	158	2	1.1	528	0	0
Pennsylvania	1,026	50	4.9	3,152	757	24

TABLE 24—CURRENT AND ADDITIONAL FULL-TIME RNS AND NAS NEEDED PER STATE TO MEET 0.55 RN AND 2.45 NA HPRD STAFFING REQUIREMENT FOR RURAL LTC FACILITIES—Continued

State	Existing full-time RNs	Additional RNs needed	% Increase in RNs needed	Existing full-time NAs	Additional NAs needed	% Increase in NAs needed
Puerto Rico	0	0	.....	0	0	.....
Rhode Island	0	0	.....	0	0	.....
South Carolina	279	62	22.4	1,121	250	22.3
South Dakota	488	2	0.5	1,382	146	10.6
Tennessee	683	78	11.4	2,515	603	24
Texas	1,138	311	27.3	6,143	1,763	28.7
Utah	122	0	0	269	30	11.3
Vermont	250	2	0.8	734	90	12.3
Virginia	574	99	17.3	1,990	651	32.7
Washington	193	5	2.5	535	84	15.6
West Virginia	399	32	8	1,464	223	15.2
Wisconsin	1,142	4	0.3	2,835	335	11.8
Wyoming	245	0	0	626	64	10.2
United States	26,708	2,144	8.0	95,485	15,028	15.7

We then assessed the financial cost for facilities to implement the proposed 0.55 RN and 2.45 NA HPRD minimum staffing requirement. To estimate the yearly cost per State, we used the formulas described in section VI.C.1.(a) to first estimate each facility's yearly cost to meet the requirement. We also assumed that LTC facilities exceeding the minimum requirements for either RNs and/or NAs would not reduce staff to the minimum required level or lay off other staff to reduce costs. We then calculated the average cost per resident day by summing the total cost of meeting the requirement for all facilities

in the State and dividing it by the total number of resident days for all facilities needing additional RNs or NAs. We estimated the average cost per resident day only for facilities needing staff to provide a more complete picture of the burden that the rule would impose on these facilities.

Table 25 provides the yearly Statewide cost to implement the requirement, as well as the average cost per resident day for facilities in rural and urban areas that will need to hire staff to meet the requirement. Facilities in Illinois that were not meeting the minimum staffing standard would need

to spend the most with an average cost of \$20.41 per resident day. The highest overall cost occurs in New York where facilities would need to collectively spend nearly \$409 million to meet the minimum staffing requirement. The cost also varied across urban and rural areas. In Illinois, LTC facilities in urban areas that need staff would need to spend an average of \$21.70 per resident day to meet the requirement, while in Florida, they would need to spend less than \$5.25 per resident day. Virginia had the highest average cost for rural LTC facilities at \$17.63 per resident day.

TABLE 25—LTC FACILITIES IN EACH STATE NEEDING RNS AND/OR NAs AND AVERAGE COST PER RESIDENT DAY BY RURAL AND URBAN LOCATION

State	Yearly state-wide cost (\$ million)	Average cost per resident day (statewide)	Urban LTC facilities needing RNs and/or NAs	Average cost per resident day (urban areas)	Rural LTC facilities needing RNs and/or NAs	Average cost per resident day (rural areas)
Alabama	57.5	\$10.03	120	\$10.59	57	\$8.76
Alaska	0.1	7.50	1	7.50	0	0.00
Arizona	35.8	12.07	99	12.06	8	12.17
Arkansas	33.9	7.40	103	7.96	80	6.58
California	222.7	9.55	725	9.57	26	8.48
Colorado	37.4	10.18	122	10.29	26	9.37
Connecticut	63.4	12.04	140	12.25	12	9.14
Delaware	12.0	11.18	36	11.18	0	0.00
District of Columbia	1.9	6.33	7	6.33	0	0.00
Florida	54.3	5.32	271	5.23	22	6.46
Georgia	154.1	16.26	201	17.05	125	14.69
Hawaii	2.6	9.41	5	7.97	3	10.84
Idaho	5.3	6.95	29	7.38	11	5.32
Illinois	353.5	20.41	412	21.70	155	14.49
Indiana	150.1	13.95	307	14.66	151	12.06
Iowa	40.8	8.94	97	9.16	174	8.78
Kansas	24.9	8.79	90	10.23	63	5.86
Kentucky	67.5	11.11	111	13.21	109	8.72
Louisiana	117.9	15.57	175	16.71	70	12.10
Maine	2.4	5.89	12	7.17	4	2.02
Maryland	77.5	12.00	168	12.14	10	8.64
Massachusetts	125.4	12.58	306	12.58	0	0.00
Michigan	128.6	14.78	250	15.77	68	9.49
Minnesota	33.6	10.09	109	10.81	49	7.58
Mississippi	38.3	9.46	54	10.89	103	8.62
Missouri	117.3	12.75	233	14.21	147	9.61
Montana	10.4	13.81	13	14.08	27	13.61
Nebraska	13.0	8.54	26	9.77	58	7.61
Nevada	18.3	13.90	34	13.80	4	15.92
New Hampshire	18.4	13.58	27	12.88	19	14.60
New Jersey	163.2	14.74	285	14.74	0	0.00
New Mexico	15.3	10.87	29	11.33	22	9.87

TABLE 25—LTC FACILITIES IN EACH STATE NEEDING RNS AND/OR NAs AND AVERAGE COST PER RESIDENT DAY BY RURAL AND URBAN LOCATION—Continued

State	Yearly state-wide cost (\$ million)	Average cost per resident day (statewide)	Urban LTC facilities needing RNs and/or NAs	Average cost per resident day (urban areas)	Rural LTC facilities needing RNs and/or NAs	Average cost per resident day (rural areas)
New York	408.9	14.66	430	14.56	72	15.63
North Carolina	126.9	13.01	256	13.33	87	11.99
North Dakota	3.9	10.81	5	7.81	15	11.84
Ohio	287.6	14.68	577	15.19	227	13.06
Oklahoma	40.6	9.15	108	10.62	96	7.03
Oregon	2.8	4.91	26	4.75	1	8.28
Pennsylvania	297.8	14.96	470	15.19	101	13.56
Puerto Rico	0.0	0.00	3	0.00	0	0.00
Rhode Island	16.1	9.87	53	9.87	0	0.00
South Carolina	59.4	12.63	113	12.40	35	13.39
South Dakota	10.4	9.53	21	9.84	43	9.34
Tennessee	101.8	13.10	181	13.68	100	11.77
Texas	408.0	15.35	773	15.93	305	13.36
Utah	7.5	6.40	49	6.38	8	6.52
Vermont	6.3	10.75	4	12.28	16	10.28
Virginia	156.1	19.18	180	19.65	63	17.63
Washington	23.4	10.27	78	9.40	15	15.54
West Virginia	30.1	10.88	59	11.00	44	10.68
Wisconsin	40.9	11.15	114	11.79	75	10.06
Wyoming	6.2	13.03	6	14.37	13	11.97
United States	4,232.6	13.24	7,613	13.69	2,685	11.43

Table 26 shows the average cost per resident day for facilities in each State that need additional staff, dividing facilities based on their size into three groups: less than 50 beds, 50 to 100

beds, and more than 100 beds. Within each group of LTC facilities, the cost varied widely by the number of beds and State. In Oklahoma, the average cost per resident day for facilities that have

fewer than 50 beds and need additional RNs or NAs would be \$1.84, while in Illinois, the average cost per resident day for facilities with more than 100 beds would be \$22.10.

TABLE 26—NUMBER OF LTC FACILITIES IN EACH STATE NEEDED TO HIRE RNS AND/OR NAs AND AVERAGE COST PER RESIDENT DAY BY FACILITY SIZE

State	LTC facilities needing RNs and/or NA	Statewide hiring cost (\$ million)	Average cost per resident day (statewide)	Cost—<50 beds	Cost—50 to 100 beds	Cost—>100 beds
Alabama	177	57.5	10.03	\$5.60	\$8.61	\$10.51
Alaska	1	0.1	7.50	.....	7.50	.....
Arizona	107	35.8	12.07	11.89	7.44	13.24
Arkansas	183	33.9	7.40	.....	7.39	7.40
California	751	222.7	9.55	5.33	9.16	10.06
Colorado	148	37.4	10.18	10.94	9.33	10.65
Connecticut	152	63.4	12.04	19.07	10.35	12.34
Delaware	36	12.0	11.18	7.15	7.38	11.94
District of Columbia	7	1.9	6.33	3.88	18.10	4.45
Florida	293	54.3	5.32	7.69	5.67	5.24
Georgia	326	154.1	16.26	10.12	14.71	17.21
Hawaii	8	2.6	9.41	3.82	14.83	8.42
Idaho	40	5.3	6.95	5.52	7.80	6.43
Illinois	567	353.5	20.41	8.51	14.51	22.10
Indiana	458	150.1	13.95	14.24	12.79	14.77
Iowa	271	40.8	8.94	8.82	8.71	9.73
Kansas	153	24.9	8.79	8.05	8.08	10.69
Kentucky	220	67.5	11.11	9.16	11.17	11.13
Louisiana	245	117.9	15.57	4.91	10.11	16.50
Maine	16	2.4	5.89	.....	6.38	4.78
Maryland	178	77.5	12.00	6.36	9.83	12.44
Massachusetts	306	125.4	12.58	11.71	11.40	12.83
Michigan	318	128.6	14.78	12.36	12.49	15.97
Minnesota	158	33.6	10.09	10.30	10.13	9.96
Mississippi	157	38.3	9.46	12.76	7.93	10.45
Missouri	380	117.3	12.75	6.62	9.44	14.63
Montana	40	10.4	13.81	16.03	16.75	10.77
Nebraska	84	13.0	8.54	8.13	7.37	10.67
Nevada	38	18.3	13.90	6.79	9.47	15.14
New Hampshire	46	18.4	13.58	4.31	13.58	13.86
New Jersey	285	163.2	14.74	10.34	11.22	15.00
New Mexico	51	15.3	10.87	10.24	10.86	10.90
New York	502	408.9	14.66	9.47	17.38	14.48
North Carolina	343	126.9	13.01	11.27	11.71	13.77
North Dakota	20	3.9	10.81	9.93	5.47	15.42
Ohio	804	287.6	14.68	11.28	13.76	16.15
Oklahoma	204	40.6	9.15	1.84	5.51	11.08

TABLE 26—NUMBER OF LTC FACILITIES IN EACH STATE NEEDED TO HIRE RNS AND/OR NAs AND AVERAGE COST PER RESIDENT DAY BY FACILITY SIZE—Continued

State	LTC facilities needing RNs and/or NA	Statewide hiring cost (\$ million)	Average cost per resident day (statewide)	Cost— <50 beds	Cost— 50 to 100 beds	Cost— >100 beds
Oregon	27	2.8	4.91	8.60	3.79	5.94
Pennsylvania	571	297.8	14.96	12.90	12.73	15.45
Puerto Rico	3					
Rhode Island	53	16.1	9.87	9.19	9.16	10.21
South Carolina	148	59.4	12.63	8.79	12.48	12.82
South Dakota	64	10.4	9.53	9.14	9.37	10.87
Tennessee	281	101.8	13.10	7.40	11.86	13.66
Texas	1,078	408.0	15.35	10.03	12.69	16.39
Utah	57	7.5	6.40	9.69	6.84	5.62
Vermont	20	6.3	10.75	5.46	15.05	9.59
Virginia	243	156.1	19.18	5.92	16.13	20.25
Washington	93	23.4	10.27	10.68	8.44	11.48
West Virginia	103	30.1	10.88	9.03	9.86	11.90
Wisconsin	189	40.9	11.15	7.93	10.40	12.47
Wyoming	19	6.2	13.03		8.27	14.84
United States	11,022	4,232.6	13.24	9.25	14.25	11.37

In Table 27, we calculated the average cost by State for facilities needing staff to meet the minimum staffing requirement based on whether the facility accepted patients with Medicare, Medicaid, or both Medicare

and Medicaid. The highest per resident day cost would be for a single Medicaid-only facility in North Dakota that would need to spend an average of \$31.33 per resident day to meet the staffing requirement. The lowest per resident

day cost for facilities needing staff would be for two Medicare-only facilities in West Virginia that would need to spend \$0.59 per resident day to meet the requirement.

TABLE 27—NUMBER OF LTC FACILITIES IN STATE NEEDING TO HIRE RNS AND/OR NAs AND AVERAGE COST PER RESIDENT DAY BY MEDICARE, MEDICAID AND DUAL ACCEPTANCE STATUS

State	Medicare only facilities	Medicare only facilities cost per resident day	Medicaid only facilities	Medicaid only facilities cost per resident day	Medicare and Medicaid facilities	Medicare and Medicaid facilities cost per resident day
Alabama	4	\$5.87	1	\$12.92	171	\$10.06
Alaska	0	0.00	0	0.00	1	7.50
Arizona	13	7.84	0	0.00	92	12.54
Arkansas	0	0.00	2	2.18	180	7.50
California	7	3.51	19	26.77	722	9.02
Colorado	9	5.85	3	26.07	135	10.15
Connecticut	0	0.00	0	0.00	151	12.02
Delaware	3	6.47	2	10.37	31	11.36
District of Columbia	0	0.00	0	0.00	7	6.33
Florida	6	9.96	0	0.00	285	5.31
Georgia	4	5.94	0	0.00	322	16.36
Hawaii	0	0.00	0	0.00	8	9.41
Idaho	0	0.00	0	0.00	40	6.95
Illinois	9	5.58	14	37.51	542	20.11
Indiana	7	17.82	5	11.21	444	13.96
Iowa	2	3.09	5	11.49	261	8.93
Kansas	1	12.98	9	20.62	142	8.31
Kentucky	5	9.72	0	0.00	213	11.13
Louisiana	6	4.27	0	0.00	232	15.30
Maine	0	0.00	0	0.00	16	5.89
Maryland	2	10.02	0	0.00	175	12.05
Massachusetts	4	14.14	0	0.00	296	12.58
Michigan	1	6.28	1	2.71	314	14.72
Minnesota	4	5.84	6	27.71	146	9.19
Mississippi	3	19.62	12	9.42	142	9.41
Missouri	5	9.63	6	15.99	368	12.74
Montana	0	0.00	0	0.00	40	13.81
Nebraska	0	0.00	3	7.04	77	8.59
Nevada	3	6.74	1	24.55	34	13.70
New Hampshire	0	0.00	1	6.60	45	13.78
New Jersey	5	8.83	0	0.00	278	14.66
New Mexico	0	0.00	1	8.08	50	10.89
New York	0	0.00	0	0.00	500	14.69
North Carolina	7	11.76	1	11.94	332	13.05
North Dakota	1	31.33	0	0.00	18	10.98
Ohio	5	8.84	0	0.00	792	14.70
Oklahoma	2	6.39	2	6.86	200	9.20
Oregon	0	0.00	2	7.52	23	4.60
Pennsylvania	33	9.70	1	3.98	535	15.12
Puerto Rico	3	0.00	0	0.00	0	0.00

TABLE 27—NUMBER OF LTC FACILITIES IN STATE NEEDING TO HIRE RNS AND/OR NAs AND AVERAGE COST PER RESIDENT DAY BY MEDICARE, MEDICAID AND DUAL ACCEPTANCE STATUS—Continued

State	Medicare only facilities	Medicare only facilities cost per resident day	Medicaid only facilities	Medicaid only facilities cost per resident day	Medicare and Medicaid facilities	Medicare and Medicaid facilities cost per resident day
Rhode Island	0	0.00	0	0.00	53	9.87
South Carolina	10	6.87	0	0.00	137	12.82
South Dakota	0	0.00	6	5.67	57	9.90
Tennessee	18	9.05	4	8.30	259	13.34
Texas	23	8.53	6	10.40	1,041	15.51
Utah	4	9.15	4	12.85	49	6.00
Vermont	0	0.00	0	0.00	20	10.75
Virginia	9	3.26	5	15.09	227	19.55
Washington	0	0.00	0	0.00	93	10.27
West Virginia	2	0.59	1	8.01	98	10.81
Wisconsin	2	1.40	1	5.13	184	11.24
Wyoming	0	0.00	0	0.00	19	13.03
United States	222	8.39	124	19.33	10,597	13.96

b. Benefits of LTC Minimum Staff Requirement

Literature evidence suggests that higher staffing is associated with better quality of patient care and patient health outcomes.^{180 181 182} While many of these benefits are difficult to quantify, research suggests a positive correlation between higher RN HPRD and more community discharges, as well as fewer hospitalizations and emergency department visits that result in significant savings for Medicare. The strongest comes from the 2022 Nursing Home Staffing Study that analyzes the Medicare savings that are likely to result from different case-mix adjusted RN hours per resident day (HPRD) requirements.

The study first used the PBJ system, which contains data on daily hours worked by RNs, and data from the Minimum Data Set (MDS) on resident acuity and the number of residents in the facility, to calculate the acuity-adjusted RN HPRD for 14,140 LTC

facilities based on data from 2022 Q2.¹⁸³ We would note, as discussed above, that while the benefits described in this section were calculated on the basis of acuity-adjusted data, the minimum staffing requirements being proposed in this rule will be applied independent of an individual facility's case-mix. We understand that this may impact the comparability of the benefits described in this section to those which may occur if these requirements are finalized, but we also believe that the acuity adjusted data more accurately reflect that which is publicly reported through Care Compare and the PBJ System. Registered nurses included RNs, RNs with administrative duties, and RN directors of nursing. It then used Nurse Home Compare Data from 2021Q2 to 2022Q1 to examine the impact of different RN staffing levels on five claims-based measures: short-stay hospital readmission, short-stay emergency department (ED) visits, long-stay hospitalizations per 1,000 long-stay resident days, long-stay ED visits per 1,000 long-stay resident days, and the rate of successful return to home or community. More specifically, the study ran a multivariate regression model that used the 1st and 2nd RN staffing decile as the reference group and included the 3rd through the 10th deciles of RN staffing as covariates in the model. The model also includes several additional covariates that take into account LTC facility specific characteristics that include: (1) facility size (number of certified beds), (2) ownership type (for-profit, non-profit or government owned), (3) whether the facility is located in a rural area, (4) the facility's Medicaid population quartile, (5)

whether the facility is hospital-based, (6) the facility's status in the Special Focus Facility Program, and (7) whether the facility is part of a continuing care retirement community. They then used the model coefficients to identify the mean outcomes that were associated with each staffing level above the 1st and 2nd RN staffing deciles.

After identifying the mean outcome rate for each of the five measures that was associated with each staffing level, they compared it to the adjusted mean outcome rate for each facility to the rate the facility would have if it met the minimum required RN staffing level. For those facilities above the minimum RN staffing level, they assumed that they would maintain their current RN staffing level. Based on the facility's number of short-stay residents, as well as long-stay resident days, they then estimated the total savings at the facility level. To measure costs savings for Medicare, the used an average estimated cost of \$20,400 per hospitalization, \$2,500 per ED visit, and for community and home discharge, the reduction in the number of Medicare-covered SNF days multiplied by the average daily payment amount. Using these criteria, the study estimates that a minimum RN requirement of between 0.52 and 0.60 HPRD would result in \$318,259,715 in annual Medicare savings.¹⁸⁴

Given that our proposed RN HPRD level is 0.55 we consider this amount to be our best estimate of the rule's financial benefits. There are also likely to be cost savings for Medicaid due to fewer hospitalizations and emergency department visits, although the 2022

¹⁸⁰ Cai, S., Yan, D., & Intrator, O. (2021). COVID-19 cases and death in nursing homes: The role of racial and ethnic composition of facilities and their communities. *Journal of the American Medical Directors Association*, 22(7), 1345–1351.

¹⁸¹ Harris, J.A., Engberg, J., & Castle, N.G. (2020). Organizational and geographic nursing home characteristics associated with increasing prevalence of resident obesity in the United States. *Journal of Applied Gerontology*, 39(9), 991–999. <https://doi.org/10.1177/07464819843045> <https://doi.org/10.1177/07464819843045> <https://doi.org/10.1177/07464819843045>

¹⁸² Min, A., & Hong, H.C. (2019). Effect of nurse staffing on rehospitalizations and emergency department visits among short-stay nursing home residents: A cross-sectional study using the US Nursing Home Compare database. *Geriatric Nursing*, 40(2), 160–165. <https://doi.org/10.1016/j.jgthts/doi.org/10.1016/j.gerinurse.2018.09.010https://doi.org/10.1016/j.jgthts/doi.org/10.1016/j.gerinurse.2018.09.010>

¹⁸³ In the study, Appendix E, Section E.1.1 provides details on the criteria used for the acuity adjustment.

¹⁸⁴ Abt Associates. (2022). Nursing Home Staffing Study Comprehensive report. Page 110. Report prepared for the Centers for Medicare & Medicaid Services. <https://edit.cms.gov/files/document/nursing-home-staffing-study-final-report-appendix-june-2023.pdf>.

Nursing Home Staffing Study did not quantify them. Higher RN and NA staffing levels may also lead to lower employee burnout and turnover, reducing LTC facilities' costs to recruit new staff and lowering dependence on temporary employees, who often command higher hourly rates. Additionally, while the savings estimate above reflects an acuity-adjusted standard, given variability in acuity across facilities, we believe that these savings estimates provide guidance on

the potential impact of applying the minimum staffing requirements independent of a facility's case-mix. We invite comments on this assumption and to what extent the benefits described in this section should be calculated using unadjusted data from PBJ and Care Compare.

Table 28 provides the estimated quantifiable benefits annually and over 10 years. Since the 0.55 RN HPRD requirement will not go into effect until Year 3, we estimate no reduction in

Emergency Department visits and hospitalizations, as well as increase in discharges to home or the community for the first 2 years. Over 10 years, we estimate a total of approximately \$2.55 billion in Medicare cost savings. We are soliciting comments on additional benefits from increased RN and NA staffing and note that the table below does not reflect the unquantifiable benefits of this rule.

TABLE 28—MINIMUM STAFFING REQUIREMENT AND MEDICARE COST SAVINGS

Year	Medicare cost savings
1	\$0
2	0
3	318,259,715
4	318,259,715
5	318,259,715
6	318,259,715
7	318,259,715
8	318,259,715
9	318,259,715
10	318,259,715
Total 10 Year Savings	2,546,077,720

Sources of uncertainty about the benefits of the 24/7 RN and 0.55 RN and 2.45 NA HPRD requirement parallel the cost uncertainty discussed earlier but with some differences:

The benefits estimate assumed that LTC facilities needing RNs and/or NAs to meet these requirements will hire the necessary staff. It does not, however, take into account how changes in the number of hours per resident day of other direct care or support staff might affect the impact that increasing the RN HPRD will have on Medicare cost savings. Some research, however, has found that when States implemented minimum hour per day requirements for direct care staff (RNs, LPNs, and NAs), LTC facilities responded by reducing indirect care staff, such as housekeeping, food service, and activities staff.^{185 186} If LTC facilities respond to the newly proposed 24/7 RN and 0.55 and 2.45 NA requirement in similar ways, then benefits of the requirements would be lower than what is presented above (see earlier

discussion about appropriate accounting depending on the consistency between benefit and cost analytic approaches).

The benefits estimate assumed that LTC facilities that exceed the 24/7 RN and 0.55 RN and 2.45 NA HPRD requirements would maintain RN and NA staffing at their current levels. Research examining how LTC facilities have responded to State level staffing mandates provides mixed evidence for this assumption, with some research finding no evidence that LTC facilities exceeding minimum requirements reduce staffing, while other research suggests that they do.¹⁸⁷ If LTC facilities reduced RN and NA staffing levels to a level that is closer to the minimum requirement, then benefits would be lower than what is estimated above.

The benefits estimate assumed that no LTC facilities would obtain exemptions from the 0.55 RN and 2.45 NA HPRD requirements, although some facilities could obtain such an exemption. Our analysis suggests that, using the criteria of being located in an area with a medium staffing shortage or being located 20 miles from the nearest LTC facility, up to 24 percent of LTC facilities would meet the initial criteria for an exemption from the 2.45 NA HPRD requirement while 28 percent

would be eligible for an exemption from the 0.55 RN HPRD requirement.

Depending on the number of facilities that obtain an exemption, the total benefits of the rule could be lower than what is presented above.

States could vary in how they respond to the increased staffing requirement, including whether they pay at least some of the additional nursing staffing costs with Medicaid funds. Benefits consequences are contingent upon such choices. For example, if overall Medicaid spending does not increase, but funds are shifted from other uses to increased LTC facility staffing, there would be negative health benefits for the patients experiencing reduced Medicaid coverage.

c. Transfers Associated With the 24/7 RN and 0.55 RN and 2.45 NA HPRD Minimum Staffing Requirements

We do not estimate transfers associated with the 24/7 RN and 0.55 RN and 2.45 NA HPRD minimum staffing portion of this rule since there are no requirements that Medicare, Medicaid and other non-Medicare/Medicaid payors increase payment rates in response to these requirements. In Tables 21 and 22, however, we do provide a breakdown of how much of the estimated cost from the proposed rule is due to LTC residents whose stay is covered by each payor type

¹⁸⁵ Thomas, Kali S., Kathryn Hyer, Ross Anel, and Robert Weech-Maldonado. The Unintended Consequences of Staffing Mandates in Florida Nursing Homes: Impacts on Indirect-Care Staff, 2010, Medicare Care Research and Review, Volume 67, Issue 5, Pages 555–573.

¹⁸⁶ Bowblis, John R., and Kathryn Hyer. Nursing Home Staffing Requirements and Input Substitution: Effects on Housekeeping, Food Service, and Activities Staff, 2013, Health Services Research, Volume 48, Issue 4, Pages: 1539–1550.

¹⁸⁷ Chen, Min M., and David C. Grabowski. Intended and Unintended Consequences of Minimum Staffing Standards for Nursing Homes, 2015, Volume 24, Pages 822–839.

(Medicare, Medicaid, and other non-Medicare/Medicaid payors).

(5) Medicaid Institutional Payment Transparency Reporting Provision Impacts

Under our authority at sections 1902(a)(6) and (a)(30) of the Act with regard to fee-for-service delivery systems, and sections 1902(a)(4) and 1932(c) of the Act with regard to managed care, we are proposing new reporting requirements at §§ 442.43(b) and 442.43(c) for States to report annually, by facility and by delivery system, on the percent of payments for Medicaid-covered services delivered by nursing facilities and ICF/IIDs that are spent on compensation for direct care workers and support staff.

Under this proposal, States would be required to report annually to us on the percent of payments for nursing facility and ICF/IID services that are spent on compensation for direct care workers and support staff. We are considering additional requirements that States report on median hourly wages for direct care workers and support staff in these facilities, and the State's FFS per diem rates for nursing facility and ICF/IID services. (The estimated costs of these additional proposals have been factored into our overall cost estimates.) We are proposing that States would be required to post all reported data on a State-maintained website, which States would review quarterly to ensure the information remains accurate and up-to-date. We believe that gathering and sharing data about the amount of Medicaid dollars that are going to the compensation of workers is a critical step in the larger effort to understand the ways we can enact policies that support the institutional care workforce and thereby help advance access to high quality care for Medicaid beneficiaries.

a. Costs of Medicaid Institutional Payment Transparency Reporting

As outlined in the Collection of Information (section IV. of this proposed rule), we estimate implementation costs to States of \$622,551 to come into compliance with the reporting requirements proposed at §§ 442.43(b)

and 442.43(c); we estimate an annual total cost of \$97,470 once the reporting requirement went into effect. Additionally, under our proposal at § 442.43(d), States would be required to make this information available on a public website; as outlined in the Collection of Information (section IV. of this proposed rule) we estimate an implementation cost to States of \$239,333 and an ongoing annual cost of \$295,527 once reporting starts. The total State costs for both the proposed reporting and website requirements are thus estimated at \$861,884 for implementation costs (\$622,551 + \$239,333) and \$392,997 ongoing annual costs once the reporting starts (\$97,470 + \$295,527).

However, as discussed in the Collection of Information (section IV. of this proposed rule) the Federal Government, through Federal Financial Participation, has a share in State Medicaid expenditures. For the purposes of this proposal, we have estimated that the Federal share of States' Medicaid expenditures is 50 percent. This means that the States and the Federal Government will each have a 50 percent share in the costs estimated in the prior paragraph. Therefore, we estimate that the States' and Federal Government's shares of the implementation costs for the proposals would be \$430,942 (\$861,884 × 0.5) and ongoing annual costs once the requirements took effect of \$196,498 (\$392,997 × 0.5).

As discussed in the Collection of Information (section IV. of this proposed rule) we estimate that the total cost to providers to prepare for compliance with the reporting requirement proposed at § 442.43(b) and (c) would be \$36,560,002, and an annual total cost to providers of \$17,912,717.

We do not estimate a cost to providers for the website posting requirement proposed at § 442.43(d). We also do not anticipate costs to beneficiaries associated with either the proposed reporting requirement or the proposed website posting requirement.

Table 29 provides a detailed summary of the estimated costs of each of the provisions for States, the Federal

Government, and providers. Table 30 summarizes the estimated costs of the provisions in § 442.43 for States, the Federal Government, and providers (Nursing Care Facilities (NAICS 623110) and Residential Intellectual and Developmental Disabilities Facilities (NAICS 623210)), over 10 years. Aside from regulatory review costs (discussed in the next section) this comprises the entirety of anticipated quantifiable costs associated with proposed changes to part 442, subpart B. The implementation costs associated with the proposed reporting and website posting requirements are split evenly over the years leading up to the proposed effective date, which is 4 years from the final rule's publication. For States and the Federal Government, this means that the implementation costs are represented as \$107,736 per year for 4 years (\$430,942 estimated implementation costs/4 years). For providers, the implementation costs are represented as \$9,140,000 per year for 4 years (\$36,560,002 estimated implementation costs/4 years). We also anticipate that once the rule goes into effect in Year 5, the ongoing annual costs will be relatively stable. We have shown the recurring annual estimate for Years 5–10 in Table 30. The estimates below do not account for higher costs associated with medical care; the costs calculated here are related exclusively to reporting and website posting costs. Per OMB guidelines, the projected estimates for future years are reported in real (non-inflation-indexed) dollars.

As discussed in the Collection of Information (section IV. of this proposed rule), costs were based on: (1) the number of States (including Washington, DC and certain territories) that currently operate Medicaid programs that cover nursing facility or ICF/IID services; (2) the number of States that deliver long-term services and supports through managed care; and (3) the total number of freestanding Medicaid-certified nursing facility and ICF/IID facilities in all States. We do not anticipate the number of entities changing significantly over the 10 years included in the cost calculations.

TABLE 29—IMPLEMENTATION AND ANNUAL COSTS DETAILED

	Cost to states (\$)	Cost to federal (\$)	Costs to providers (\$)	Implementation burden overall total (\$)	Ongoing annual burden overall total (\$)
Reporting—Implementation	311,275	311,275	36,560,002	37,182,552	.....
Reporting—Recurring annual starting Year 5	48,735	48,735	17,912,717	.....	18,010,187
Website—Implementation	119,667	119,667	0	239,333	.....
Website—Recurring annual starting Year 5	147,763	147,763	0	.....	295,526

TABLE 29—IMPLEMENTATION AND ANNUAL COSTS DETAILED—Continued

	Cost to states (\$)	Cost to federal (\$)	Costs to providers (\$)	Implementation burden overall total (\$)	Ongoing annual burden overall total (\$)
Total	627,440	627,440	54,472,719	37,421,886	18,305,713

TABLE 30—PROJECTED DISTRIBUTION OF COSTS FOR PROPOSED UPDATES TO 42 CFR 442 SUBPART B

Year	State costs	Federal costs	Provider costs	Total costs associated with \$ 442.43
1	107,736	107,736	9,140,000	9,355,472
2	107,736	107,736	9,140,000	9,355,472
3	107,736	107,736	9,140,000	9,355,472
4	107,736	107,736	9,140,000	9,355,472
5	196,498	196,498	17,912,717	18,305,713
6	196,498	196,498	17,912,717	18,305,713
7	196,498	196,498	17,912,717	18,305,713
8	196,498	196,498	17,912,717	18,305,713
9	196,498	196,498	17,912,717	18,305,713
10	196,498	196,498	17,912,717	18,305,713
10 Year Total Cost	1,609,930	1,609,930	144,036,304	147,256,164

b. Benefits of Medicaid Institutional Payment Transparency Reporting

Our proposal is intended to support the sufficiency of the direct care and support staff workforce through public reporting of the direct payments to these workers. The immediate benefits (and the intermediate costs in the cause-and-effect chain connecting reporting to long-term benefits) are difficult to quantify. However, we believe that these provisions, if finalized, will pave the way for long-term benefits to Medicaid beneficiaries and help hold States accountable for ensuring that Medicaid payments are sufficient to enlist enough workers so that high quality LTSS are available to the beneficiaries who want and require such care.

We believe that compensation levels are a factor in the creation of a stable workforce, and that a stable workforce will result in better qualified employees, lower turnover, and a higher quality of care.^{188 189} If individuals are attracted to the institutional LTSS workforce and incentivized to remain employed in it,

the workforce is more likely to be comprised of workers with the training, expertise, and experience to meet the diverse and often complex needs of individuals with disabilities and older adults residing in institutions. As discussed above, a consistent, adequate direct care workforce can reduce reliance on overtime and costlier temporary staff and reduce the incidence of emergency department visits and hospitalizations.^{190 191 192}

There are many factors that contribute to understaffing in institutional settings. We are constantly seeking opportunities to address these challenges through guidance, policies, and rulemaking. These provisions in this proposed rule are intended to promote transparency around compensation for direct care workers and support staff. We believe that gathering and sharing data about

the amount of Medicaid payments going to the compensation of workers is a critical step in the larger effort to understand the ways we can enact future policies that support the institutional care workforce.

c. Transfers Associated With Medicaid Institutional Payment Transparency Reporting

We do not estimate transfers associated with these proposed provisions.

D. Alternative Direct Care Staff HPRD Requirement Considered

As detailed in this proposed rule, despite the existing requirements and the efforts to improve safety, as well as residents' quality of care and quality of life through the revisions in the 2016 final rule, understaffing in LTC facilities continues to be a concern. We believe the changes we have proposed are consistent with current standards of practice and necessary to increase resident safety and quality of care. We acknowledge, however, there are multiple avenues for establishing a minimum nurse staffing requirement and solicit comments on alternative policy options, including a specific comment solicitation in the "Provisions of the Proposed Regulation" section.

In developing the proposed rule, we considered varying staffing models that are available and different approaches we could have adopted for the proposed minimum nurse staffing requirement. We could have adopted multiple different types of combinations of a

¹⁸⁸ See, for example, the discussion of low wages among direct care workers in Campbell, S., A. Del Rio Drake, R. Espinoza, K. Scales. 2021. Caring for the future: The power and potential of America's direct care workforce. Bronx, NY: PHI <http://phinational.org/wp-content/uploads/2021/01/Caring-for-the-Future-2021-PHI.pdf>.

¹⁸⁹ See, for example, the discussion of the relationship between staff turnover and nursing home quality in Zheng Q, Williams CS, Shulman ET, White AJ. Association between staff turnover and nursing home quality—evidence from payroll-based journal data. *J Am Geriatr Soc*. 2022 Sep;70(9):2508–2516. doi: 10.1111/jgs.17843. Epub 2022 May 7. PMID: 35524769.

¹⁹⁰ Ochieng, N., Chidambaram, P., Musumeci, M. Nursing Facility Staffing Shortages During the COVID-19 Pandemic. Apr 04, 2022. Kaiser Family Foundation. Accessed at <https://www.kff.org/coronavirus-covid-19/issue-brief/nursing-facility-staffing-shortages-during-the-covid-19-pandemic/>.

¹⁹¹ Harrington, C., Carrillo, H., Garfield, R., Squires, E. Nursing Facilities, Staffing, Residents and Facility Deficiencies, 2009 Through 2016. Apr 03, 2018. Kaiser Family Foundation. Accessed at <https://www.kff.org/report-section/nursing-facilities-staffing-residents-and-facility-deficiencies-2009-through-2016-staffing-levels/>.

¹⁹² Min A, Hong HC. Effect of nurse staffing on rehospitalizations and emergency department visits among short-stay nursing home residents: A Cross-sectional study using the US Nursing Home Compare database. *Geriatr Nurs*. 2019 Mar-Apr;40(2):160–165. doi: 10.1016/j.gerinurse.2018.09.010. Epub 2018 Oct 4. PMID: 30292528.

staffing requirement such as separate requirements for RNs, LVNs/LPNs, and NAs or defining requirements for licensed nurse staffing, that is, combining RNs and LVNs/LPNs or creating standards for NAs only. Alternatively, we could have adopted non-nurse staffing requirements such as social workers, therapists, feeding assistants and other non-nurse staffing types in the minimum staffing requirement. Alternative minimum staffing policy options could also focus on the need to increase or decrease the number of HPRD or FTEs by nurse staff and/or type or on specifying the number by shift (including day, evening, night, or weekends or over a 24-hour period).

Ultimately, we chose the comprehensive 24/7 RN and 0.55 RN and 2.45 NA HPRD requirements in this proposed rule to strike a balance between ensuring resident health and safety, while preserving access to care, including discharge to community-based services. We considered a staffing standard that would maintain the 24/7 and 2.45 NA HPRD requirements but would have a lower RN HPRD requirement. We found, however, that even a small reduction in the RN HPRD requirement would lead to a large decline in quality of care. For example, the 2022 Nursing Home Staffing Study¹⁹³ found that reducing the case-mix adjusted RN HPRD requirement to between 0.45 and 0.52 hours per resident day would lead the staffing standard to have a smaller impact on Medicare savings, reduced hospitalizations and ED visits, and fewer community discharges. More specifically, the number of reduced hospitalizations would decline from 10,445 to 5,781, the number of reduced ED visits would decline from 7,525 to 4,466, increased community discharges would decline from 5,798 to 3,930, and Medicare savings would decline by more than \$130 million annually.

We seek comments on choosing a lower HPRD minimum staffing requirement. In particular, how a lower minimum staffing requirement may

influence quality of care and resident safety, as well as access to care.

We also considered alternative minimum staffing requirements at higher levels than the one we proposed. To illustrate this approach, we considered an alternative minimum staffing requirement that would retain the 24/7 RN requirement but would increase the minimum HPRD requirement. More specifically, this alternative minimum requirement would include a minimum staffing level of 0.55 RN HPRD, 2.45 NA HPRD, and 3.48 total nurse staff (RN, LPN/LVN, NA) HPRD. It is important to note that these estimates do not include the exemption criteria, which could significantly reduce the rule's cost.

To estimate the incremental impact of the Minimum Nurse Staffing Requirement of 0.55 RN HPRD, 2.45 NA HPRD, and 3.48 total nurse staff HPRD, we used the same methodology described in section VI.C.1 to first estimate the cost of facilities meeting the 0.55 RN and 2.45 NA hours per resident day, minimum staffing requirement. After accounting for any increase in RN and NA hours per resident day needed to meet the 0.55 RN and 2.45 NA requirements, we then calculated the total number of additional hours per resident day of nurse care that LTC facilities would need to provide to meet the 3.48 HPRD total nurse staff requirement. We did this calculation by subtracting the total nurse staff hours (RN, LVN/LPN, and NA) provided from 3.48 using the following formula: $[3.48 - (\text{RN HPRD} + \text{LVN/LPN HPRD} + \text{NA HPRD})]$. For any facilities that were below the 3.48 total nurse staff requirement, we assumed that they would hire NAs to fulfill any remaining hours. Using this strategy, we estimate that this alternative HPRD option would have an annual cost of approximately \$4.25 billion for all facilities.

This \$4.25 billion estimate assumed that LTC facilities would respond to the minimum staffing requirement by increasing their RN and NA staffing

levels to the level necessary to meet the requirements, without reducing other staff such as administrative staff. We also assumed LTC facilities that were above the minimum staffing requirements for RNs or total nurse staff hours per resident day would not decrease their staffing levels to the mandated minimum. Finally, we assumed that LTC facilities would not lay off LVNs/LPNs and replace them with NAs, who are less costly. If facilities covered under this proposed rule reduced other staff not covered by the rule, reduced nurse staff levels to the mandate minimum, or they obtained exemptions from the minimum staffing requirements, the requirement's cost and benefits could decline significantly relative to what is presented above. Non-quantified effects, such as costs associated with LTC closure or reduction in patient load per facility, would also be reduced).

Table 31 summarizes the 10-year total cost for this alternative minimum nurse staffing proposal in 2021 US dollars. The total cost for this alternative proposal included the 24/7 RN requirement, the 3.48 HPRD requirement, and any associated collection of information costs as described in section IV. Collection of Information Requirement. To account for changes in real nurse staff wages over time, we assumed that real wages would rise at a rate of 2.31 percent annually. Since this estimate continued to assume that the rule would have different phase-in periods for rural and urban LTC facilities to meet the 24/7 RN (2 years for facilities in urban areas and 3 years for facilities in rural areas) and the 0.55 RN HPRD, 2.45 NA HPRD, and 3.48 total nurse staff (RN, LPN/LVN, NA) HPRD (3 years for facilities in urban areas and 5 years for facilities in rural areas) requirements, we provided separate estimates for facilities located in each area. Over a 10-year period, we anticipated an average annual cost of approximately \$4.08 billion.

TABLE 31—COST FOR ALTERNATIVE MINIMUM NURSE STAFFING REQUIREMENT OF 3.48 TOTAL HOURS PER RESIDENT DAY

Year	Collection of information costs for 24/7 RN (\$ 483.35 nursing services)	Collection of information costs for facility assessment (\$ 483.71 facility assessment)	24/7 RN Requirement (urban facilities)	24/7 RN Requirement (rural facilities)	0.55 RN, 2.45 NA, and 3.48 total nurse HPRD Requirement (urban facilities)	0.55 RN, 2.45 NA, and 3.48 total nurse HPRD requirement (rural facilities)	Total cost
1	\$7,461,504	\$24,176,448	\$0	\$0	\$0	\$0	\$31,637,952
2	7,633,865	24,734,924	213,764,107	0	0	0	246,132,896

¹⁹³ Please see Exhibit 4.50. Predicted Medicare Savings and Changes in Utilization for Potential Minimum RN Staffing Options.

TABLE 31—COST FOR ALTERNATIVE MINIMUM NURSE STAFFING REQUIREMENT OF 3.48 TOTAL HOURS PER RESIDENT DAY—Continued

Year	Collection of information costs for 24/7 RN (\$ 483.35 nursing services)	Collection of information costs for facility assessment (\$ 483.71 facility assessment)	24/7 RN Requirement (urban facilities)	24/7 RN Requirement (rural facilities)	0.55 RN, 2.45 NA, and 3.48 total nurse HPRD Requirement (urban facilities)	0.55 RN, 2.45 NA, and 3.48 total nurse HPRD requirement (rural facilities)	Total cost
3	7,810,207	25,306,301	218,702,058	146,603,030	3,675,431,549	0	4,073,853,145
4	7,990,623	25,890,876	223,754,076	149,989,560	3,760,334,018	0	4,167,959,153
5	8,175,206	26,488,955	228,922,795	153,454,319	3,847,197,733	808,635,699	5,072,874,708
6	8,364,053	27,100,850	234,210,912	156,999,114	3,936,068,001	827,315,184	5,190,058,114
7	8,557,263	27,726,880	239,621,184	160,625,793	4,026,991,172	846,426,164	5,309,948,456
8	8,754,936	28,367,371	245,156,433	164,336,249	4,120,014,668	865,978,609	5,432,608,265
9	8,957,175	29,022,657	250,819,547	168,132,416	4,215,187,007	885,982,714	5,558,101,516
10	9,164,086	29,693,081	256,613,478	172,016,275	4,312,557,827	906,448,915	5,686,493,661
10 Year Total Cost	82,868,918	268,508,343	2,111,564,589	1,272,156,756	31,893,781,974	5,140,787,285	40,769,667,866

As we have previously noted, this rule does not require payors to increase payment rates to providers to meet the expected costs of the minimum staffing and 24/7 RN requirements. Below, however, we provide estimates of how much of facilities' costs to meet the minimum staffing and 24/7 RN requirements are due to residents whose stays are covered by Medicaid, Medicare, and other non-Medicare/Medicaid payors.

Table 32 lays out the share of the facility's cost to meet the requirement that is due to residents utilizing Medicaid, with an average annual cost of approximately \$2.68 billion in 2021 US dollars over a 10-year period. Table 33 lays out the share of the facility's cost that is due to residents utilizing Medicare and other non-Medicare/Medicaid payors, with an average annual cost of approximately \$453 million for Medicare and \$884 million for other payors in 2021 US dollars over

a 10-year period. These estimates were based on the assumptions listed in section VI.C.1.a.(3) of this proposed rule.

We seek comments on choosing a higher HPRD minimum staffing requirement. In particular, we welcome comments regarding how a higher minimum staffing requirement may influence quality of care and resident safety, as well as access to care.

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TABLE 32: Cost of Alternative Comprehensive Minimum Nurse Staffing Requirement of 3.48 Total Hours per Resident Day Due to Residents Whose Stay is Covered by Medicaid

Year	24/7 RN State Medicaid Cost (Rural Facilities)	24/7 RN Federal Medicaid Cost (Rural Facilities)	24/7 RN State Medicaid Cost (Urban Facilities)	24/7 RN Federal Medicaid Cost (Urban Facilities)	State Medicaid Cost for 0.55 RN, 2.45 NA, and 3.48 Total Nurse HPRD Requirement (Rural Facilities)	Federal Medicaid Cost for 0.55 RN, 2.45 NA, and 3.48 Total Nurse HPRD Requirement (Rural Facilities)	State Medicaid Cost for 0.55 RN, 2.45 NA, and 3.48 Total Nurse HPRD Requirement (Urban Facilities)	Federal Medicaid Cost for 0.55 RN, 2.45 NA, and 3.48 Total Nurse HPRD Requirement (Urban Facilities)	Total State Medicaid Cost	Total Federal Medicaid Cost
1	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2	\$0	\$0	\$54,253,616	\$83,512,408	\$0	\$0	\$0	\$0	\$54,253,616	\$83,512,408
3	\$36,575,549	\$62,192,075	\$55,506,875	\$85,441,545	\$0	\$0	\$1,031,567,565	\$1,402,814,360	\$1,123,649,989	\$1,550,447,980
4	\$37,420,445	\$63,628,712	\$56,789,084	\$87,415,245	\$0	\$0	\$1,055,396,776	\$1,435,219,371	\$1,149,606,305	\$1,586,263,328
5	\$38,284,857	\$65,098,535	\$58,100,912	\$89,434,537	\$206,837,807	\$340,045,093	\$1,079,776,441	\$1,468,372,939	\$1,383,000,018	\$1,962,951,103
6	\$39,169,237	\$66,602,312	\$59,443,043	\$91,500,475	\$211,615,761	\$347,900,134	\$1,104,719,277	\$1,502,292,354	\$1,414,947,318	\$2,008,295,275
7	\$40,074,046	\$68,140,825	\$60,816,177	\$93,614,136	\$216,504,085	\$355,936,627	\$1,130,238,292	\$1,536,995,307	\$1,447,632,600	\$2,054,686,895
8	\$40,999,757	\$69,714,878	\$62,221,031	\$95,776,622	\$221,505,329	\$364,158,763	\$1,156,346,797	\$1,572,499,899	\$1,481,072,914	\$2,102,150,162
9	\$41,946,851	\$71,325,292	\$63,658,336	\$97,989,062	\$226,622,102	\$372,570,831	\$1,183,058,408	\$1,608,824,646	\$1,515,285,697	\$2,150,709,831
10	\$42,915,824	\$72,972,906	\$65,128,844	\$100,252,610	\$231,857,073	\$381,177,217	\$1,210,387,057	\$1,645,988,496	\$1,550,288,798	\$2,200,391,229
10 Year Total Cost	\$317,386,566	\$539,675,535	\$535,917,918	\$824,936,640	\$1,314,942,158	\$2,161,788,666	\$8,951,490,613	\$12,173,007,371	\$11,119,737,254	\$15,699,408,212

TABLE 33: Cost of Alternative Comprehensive Minimum Nurse Staffing Requirement of 3.48 Total Hours per Resident Day due to Residents whose Stay is Covered by Medicare and Other non-Medicare/Medicaid Payors

Year	24/7 RN Medicare Cost (Rural Facilities)	24/7 RN Medicare Costs (Urban Facilities)	0.55 RN, 2.45 NA, and 3.48 Total Nurse HPRD Requirement Medicare Cost (Rural Facilities)	0.55 RN, 2.45 NA, and 3.48 Total Nurse HPRD Requirement Medicare Cost (Urban Facilities)	24/7 RN Other Non- Medicaid Payors Costs (Urban Facilities)	0.55 RN, 2.45 NA, and 3.48 Total Nurse HPRD Requirement Other Non- Medicaid Payors Cost (Rural Facilities)	0.55 RN, 2.45 NA, and 3.48 Total Nurse HPRD Requirement Other Non- Medicaid Payors Cost (Urban Facilities)	Total Cost Due to Residents whose Stay is Covered by Medicare	Total Cost Due to Residents whose Stay is Covered by Other non- Medicare/Medicaid Payors
1	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2	\$0	\$26,252,999	\$0	\$0	\$49,745,083	\$0	\$0	\$26,252,999	\$49,745,083
3	\$12,665,283	\$26,859,443	\$0	\$415,924,560	\$35,170,123	\$0	\$802,437,832	\$455,449,286	\$888,502,150
4	\$12,957,851	\$27,479,897	\$0	\$425,532,417	\$35,982,552	\$0	\$820,974,146	\$465,970,165	\$909,026,549
5	\$13,257,177	\$28,114,682	\$87,289,672	\$435,362,216	\$36,813,749	\$170,600,165	\$839,938,648	\$564,023,748	\$1,100,625,227
6	\$13,563,418	\$28,764,131	\$89,306,064	\$445,419,084	\$37,664,147	\$174,541,029	\$859,341,231	\$577,052,696	\$1,126,049,671
7	\$13,876,733	\$29,428,583	\$91,369,034	\$455,708,264	\$38,534,189	\$178,572,927	\$879,192,014	\$590,382,614	\$1,152,061,418
8	\$14,197,285	\$30,108,383	\$93,479,658	\$466,235,125	\$39,424,329	\$182,697,962	\$899,501,349	\$604,020,452	\$1,178,674,037
9	\$14,525,243	\$30,803,887	\$95,639,039	\$477,005,157	\$40,335,031	\$186,918,285	\$920,279,830	\$617,973,325	\$1,205,901,407
10	\$14,860,776	\$31,515,456	\$97,848,300	\$488,023,976	\$41,266,770	\$191,236,097	\$941,538,294	\$632,248,508	\$1,233,757,729
Total 10 Year Cost	\$109,903,766	\$259,327,462	\$554,931,767	\$3,609,210,800	\$305,190,890	\$1,084,566,465	\$6,963,203,345	\$4,533,373,794	\$8,844,343,270

2. Medicaid Institutional Payment Transparency Reporting

We considered proposing to require in § 442.43(b) that States report at the beneficiary level or other more granular levels but did not include such requirements because we expected that this would increase reporting burden for States and providers without giving us additional information necessary for determining the percent of payments that are going to the workforce.

We also considered whether to allow States, at their option, to exclude from their reporting to CMS payments to providers that have low Medicaid revenues or serve a small number of Medicaid beneficiaries, based on Medicaid revenues for the service, or the number of Medicaid beneficiaries receiving the service. We considered this option as a way to reduce State and provider data collection and reporting burden based on the experience of States that have implemented similar reporting requirements. However, we are concerned that such an option could discourage providers from serving Medicaid beneficiaries or increasing the number of Medicaid beneficiaries served.

E. Regulatory Review Costs

1. Regulatory Review Costs of 24/7 RN and 0.55 RN and 2.45 NA HPRD Minimum Nurse Staffing

If the 24/7 RN and the Minimum Nurse staffing proposals impose administrative costs on private entities, such as the time needed to read and interpret this proposed rule, we should estimate the cost associated with regulatory review. As discussed in the Collection of Information (section III. of this proposed rule), 14,688 LTC facilities would be impacted by the proposed requirements. We assume that seventy-five percent (75 percent) of LTC facilities will proactively review this proposed rule, or 11,016. (We note that the FY 2023 SNF PPS proposed rule, 87 FR 22720, had around 18,000 views, as shown at <https://www.federalregister.gov/documents/2022/04/15/2022-07906/medicare-program-prospective-payment-system-and-consolidated-billing-for-skilled-nursing-facilities>. Some of these views were likely multiple views by the same reader.) We acknowledge that this assumption may understate or overstate the costs of reviewing this rule. It is possible that not all of the affected LTC facilities will read this proposed rule, or that there may be more than one individual reviewing the rule for some

LTC facilities. It is also possible that entities other than LTC facilities, such as beneficiary advocacy groups, may review this rule. We welcome any comments on the approach in estimating the number of LTC facilities which will review this proposed rule.

We also recognize that different types of entities are in many cases affected by mutually exclusive sections of some proposed rules, or that some entities may not find it necessary to fully read each rule, and therefore for the purposes of our estimate we assume that each reviewer will read approximately 50 percent of the section of the rule discussing the 24/7 RN requirement and the 0.55 RN and 2.45 NA HPRD requirement.

We seek comments on this assumption.

Using the wage information from the Bureau of Labor Statistics, May 2022 National Occupational Employment and Wage Estimates, https://www.bls.gov/oes/current/oes_nat.htm, for medical and health service managers (Code 11-9111), we estimate that the cost of reviewing this rule is \$123.06 per hour, including overhead and fringe benefits. Assuming an average reading speed of 250 words per minute, and assuming that two-thirds (67 percent) of this proposed rule pertains to the 24/7 RN and 0.55 RN and 2.45 NA HPRD requirement, with approximately 40,000 words (of which we estimate 20,000 words will be read by reviewers), we estimate that it would take 80 minutes or 1.33 hours for the staff to review all the sections of the proposed rule pertaining to the 24/7 RN and 0.55 RN and 2.45 NA HPRD requirements. For each employee that reviews the rule, the estimated cost is \$163.67 (1.33 hours × \$123.06). Therefore, we estimate that the total one-time cost of reviewing this regulation is \$1,802,989 (163.67 × 11,016).

2. Regulatory Review Costs of Medicaid Institutional Payment Transparency Reporting

As discussed in the Collection of Information (section III. of this proposed rule), 52 State Medicaid agencies and approximately 19,907 nursing facilities and ICF/IIDs would be impacted by the proposed requirements (totaling 19,959 interested parties). Due to the uncertainty involved with accurately quantifying the number of entities that will review the rule, we assume that seventy-five percent (75 percent) of these affected entities will proactively review this proposed rule, or 14,969. (We note that the FY 2023 SNF PPS

proposed rule, 87 FR 22720, had around 18,000 views, as shown at <https://www.federalregister.gov/documents/2022/04/15/2022-07906/medicare-program-prospective-payment-system-and-consolidated-billing-for-skilled-nursing-facilities>. Some of these views were likely multiple views by the same reader.) We acknowledge that this assumption may understate or overstate the costs of reviewing this rule. It is possible that not all those affected entities will read this proposed rule, or that there may be more than one individual reviewing the rule for some of the affected entities. It is also possible that entities other than State Medicaid agencies or institutional facilities, such as beneficiary advocacy groups, may review this rule. We welcome any comments on the approach in estimating the number of entities which will review this proposed rule. We also recognize that different types of entities are in many cases affected by mutually exclusive sections of some proposed rules, or that some entities may not find it necessary to fully read each rule, and therefore for the purposes of our estimate we assume that each reviewer will read half of the sections of the rule discussing Medicaid institutional payment adequacy. We seek comments on this assumption.

Using the wage information from the Bureau of Labor Statistics, May 2022 National Occupational Employment and Wage Estimates, https://www.bls.gov/oes/current/oes_nat.htm, for medical and health service managers (Code 11-9111), we estimate that the cost of reviewing this rule is \$123.06 per hour, including overhead and fringe benefits. Assuming an average reading speed of 250 words per minute, and assuming that one-third of this rule pertains to Medicaid Institutional Payment Transparency Reporting, with approximately 20,000 words (of which we estimate 10,000 words will be read by reviewers), we estimate that it would take 40 minutes or 0.67 hours for the staff to review portions of the sections of the proposed rule pertaining to the Medicaid Institutional Payment Transparency Reporting. For each employee that reviews the rule, the estimated cost is \$82.45 (0.67 hours × \$123.06). Therefore, we estimate that the total one-time cost of reviewing this regulation is \$1,234,194 (\$82.45 × 14,969).

Table 34 provides the total estimated regulatory review costs for the rule, which is \$3,037,183.

TABLE 34—REGULATORY REVIEW COST

Medicaid institutional payment transparency reporting	24/7 RN and 0.55 RN and 2.45 NA HPRD minimum nurse staffing	Total cost
\$1,234,194	\$1,802,989	\$3,037,183

F. Accounting Statement

As required by OMB Circular A–4 (available online at https://obamawhitehouse.archives.gov/omb/circulars_a004_a-4/), we have prepared an accounting statement in Table 34 showing classification of the costs and benefits associated with the provisions

of this proposed rule. This includes the total cost for the 24/7 RN and the 0.55 RN and 2.45 NA HPRD requirements as provided in Table 20, the total cost for the Medicaid Institutional Transparency Reporting as provided in Table 30, the total cost for the regulatory review as provided in Table 34, and Medicare

savings due to fewer hospitalizations and emergency department visits, as well as greater return to home and community, as provided in Table 28. There are \$0 in transfer estimates in the statement. This statement provides our best estimate for the Medicare and Medicaid provisions of this rule.

TABLE 35—ACCOUNTING STATEMENT: 24/7 RN REQUIREMENT, 0.55 RN AND 2.45 NA HPRD REQUIREMENT, AND MEDICAID INSTITUTIONAL PAYMENT TRANSPARENCY REPORTING REQUIREMENT

Category	Estimates	Units		
		Year dollar	Discount rate	Period covered
Benefits				
Annualized Monetized (\$million/year)	236	2021	7%	2024–2033
	247	2021	3	2024–2033
Costs				
Annualized Monetized (\$million/year)	3,733	2021	7%	2024–2033
	3,930	2021	3	2024–2033

G. Regulatory Flexibility Act Analysis (RFA)

The RFA requires agencies to analyze options for regulatory relief of small entities, if a rule has a significant impact on a substantial number of small entities. For purposes of the RFA, we estimate that almost all Skilled Nursing Facilities (NAICS 6231) and Intellectual and Developmental Disabilities Facilities (NAICS 6232) are small entities, as that term is used in the RFA (including small businesses, nonprofit organizations, and small governmental jurisdictions). The great majority of hospitals and most other health care providers and suppliers are small entities, either by being nonprofit organizations or by meeting the Small

Business Administration (SBA) definition of a small business (that is, having revenues of less than \$8.0 million to \$41.5 million in any 1 year).

We utilized the revenues of individual SNF *providers* (from recent Medicare Cost Reports) to classify a small business, and not the revenue of a larger firm with which they may be affiliated. As a result, for the purposes of the RFA, we estimate that almost all SNFs are small entities as that term is used in the RFA, according to the Small Business Administration's latest size standards, with total revenues of \$34 million or less in any 1 year. In addition, approximately 20 percent of SNFs classified as small entities are non-profit organizations. Therefore, approximately 95 percent of the health

care industries impacted are considered small businesses according to the Small Business Administration's size standards with total revenues of \$41 million or less in any 1 year. Individuals and States are not included in the definition of a small entity. According to the 2017 Economic Census, Skilled Nursing Facilities (NAICS 6231) and Intellectual and Developmental Disabilities Facilities (NAICS 6232) together earned approximately \$162 billion annually with Skilled Nursing Facilities earning nearly \$119 billion and Intellectual and Developmental Disabilities Facilities earning approximately \$44 billion. Overall, the cost is estimated to be between 2.30 and 2.42 percent of revenues.

TABLE 36—REGULATORY FLEXIBILITY ACT ANALYSIS

	Annual revenue	Estimated average annual cost for providers with 3% discount rate	Estimated average annual cost for providers with 7% discount rate	Cost as % of revenue with 3% discount rate	Cost as % of revenue with 7% discount rate
Skilled Nursing Facilities and Intellectual and Developmental Disabilities Facilities	\$162,451,136,000	\$3,733,000,000	\$3,930,000,000	2.30	2.42

Individuals and States are not included in the definition of a small entity. This rule will not have a significant impact measured change in revenue of 3 to 5 percent on a substantial number of small businesses or other small entities. As its measure of significant economic impact on a substantial number of small entities, HHS uses a change in revenue of more than 3 to 5 percent. At this time, we do not believe that this threshold will be reached by the requirements in this proposed rule. Therefore, the Secretary has certified that this proposed rule will not have a significant economic impact on a substantial number of small entities.

In addition, section 1102(b) of the Act requires us to prepare a regulatory impact analysis if a rule may have a significant impact on the operations of a substantial number of small rural hospitals. This analysis must conform to the provisions of section 603 of the RFA. For purposes of section 1102(b) of the Act, we define a small rural hospital as a hospital that is located outside of an MSA and has fewer than 100 beds. These proposals pertain solely to SNFs and NFs. Therefore, the Secretary has determined that these proposals will not have a significant impact on the operations of a substantial number of small rural hospitals.

H. Unfunded Mandates Reform Act Analysis

Section 202 of the Unfunded Mandates Reform Act (UMRA) of 1995 also requires that agencies assess anticipated costs and benefits before issuing any rule whose mandates require spending in any 1 year of \$100 million in 1995 dollars, updated annually for inflation. In 2023, that threshold is approximately \$177 million. Based on the cost estimates discussed in this section, we have assessed the various costs and benefits of the proposed updates to the requirements for participation for LTC facilities. These proposed updates will not impose new requirements for State, local, or tribal governments. For the private sector facilities, the regulatory impact section, together with the remainder of the preamble, constitutes the analysis required under UMRA.

I. Federalism Analysis

Executive Order 13132 establishes certain requirements that an agency must meet when it issues a proposed rule that imposes substantial direct requirement costs on State and local governments, preempts State law, or otherwise has Federalism implications. With regard to the updates to the

requirements for participation for LTC facilities, the provisions in this proposed rule are not intended to, and would not preempt the applicability of any State or local law providing a higher standard (in this case, a higher HPRD requirement for RNs and/or NAs or an RN coverage requirement in excess of at least one RN on site 24-hours per day, 7 days a week) than would be required by this proposed rule. To the extent Federal standards exceed State and local law minimum staffing standards, no Federal pre-emption is implicated because facilities complying with Federal law would also be in compliance with State law. We are not aware of any State or local law providing for a maximum staffing level. This proposed rule, however, is intended to and would preempt the applicability of any State or local law providing for a maximum staffing level, to the extent that such a State or local maximum staffing level would prohibit a Medicare, Medicaid, or dually certified LTC facility from meeting the minimum HPRD requirements and RN coverage levels proposed in this rule or from meeting higher staffing levels required based on the facility assessment proposed in this rule.

In accordance with the provisions of Executive Order 12866, this proposed rule was reviewed by the Office of Management and Budget.

Chiquita Brooks-LaSure, Administrator of the Centers for Medicare & Medicaid Services, approved this document on August 15, 2023.

List of Subjects

42 CFR Part 438

Administrative practice and procedure, Grant programs—health, Health professions, Medicaid, Older adults, People with Disabilities, Reporting and recordkeeping requirements.

42 CFR Part 442

Administrative practice and procedure, Grant programs—health, Health professions, Medicaid, Older adults, People with Disabilities, Reporting and recordkeeping requirements.

42 CFR Part 483

Grant programs—health, Health facilities, Health professions, Health records, Medicaid, Medicare, Nursing homes, Nutrition, Reporting and recordkeeping requirements, Safety.

For the reasons set forth in the preamble, the Centers for Medicare &

Medicaid Services proposes to amend 42 CFR chapter IV as set forth below:

PART 438—MANAGED CARE

■ 1. The authority citation for part 438 continues to read as follows:

Authority: 42 U.S.C. 1302.

■ 2. Section 438.72 is added to subpart B to read as follows:

§ 438.72 Additional requirements for long-term services and supports.

(a) *Nursing facilities services and services delivered in Intermediate Care Facilities for Individuals with Intellectual Disabilities.* If the State includes nursing facility and/or ICF/IID services in their MCO or PIHP contracts, the State must include requirements in these contracts imposing obligations on the MCO or PIHP to the extent necessary to comply with the reporting requirements in § 442.43 of this subchapter, and must comply by the first rating period for contracts with MCOs or PIHPs beginning on or after the effective date specified in § 442.43(f) of this subchapter.

(b) [Reserved]

PART 442—STANDARDS FOR PAYMENT TO NURSING FACILITIES AND INTERMEDIATE CARE FACILITIES FOR INDIVIDUALS WITH INTELLECTUAL DISABILITIES

■ 3. The authority citation for part 442 continues to read as follows:

Authority: Sec. 1102 of the Social Security Act (42 U.S.C. 1302), unless otherwise noted.

■ 4. Section 442.43 is added to subpart B to read as follows:

§ 442.43 Payment Transparency Reporting.

(a) *Definitions.* (1) *Compensation* means, with respect to direct care workers and support staff delivering services authorized under this part:

(i) Salary, wages, and other remuneration as defined by the Fair Labor Standards Act and implementing regulations (29 U.S.C. 201 *et seq.*, 29 CFR parts 531 and 778);

(ii) Benefits (such as health and dental benefits, sick leave, and tuition reimbursement); and

(iii) The employer share of payroll taxes.

(2) *Direct Care Worker* means one of the following individuals who provides services to Medicaid-eligible individuals receiving services under this part, who may be employed by or contracted or subcontracted with a Medicaid provider or State or local government agency:

(i) A registered nurse, licensed practical nurse, nurse practitioner, or clinical nurse specialist;

(ii) A certified nurse aide who provides services under the supervision of a registered nurse, licensed practical nurse, nurse practitioner, or clinical nurse specialist;

(iii) A licensed physical therapist, occupational therapist, speech-language pathologist, or respiratory therapist;

(iv) A certified physical therapy assistant, occupational therapy assistant, speech-language therapy assistant, or respiratory therapy assistant or technician;

(v) A social worker;

(vi) A personal care aide;

(vii) A medication assistant, aide, or technician;

(viii) A feeding assistant;

(ix) Activities staff; or

(x) Any other individual who is paid to provide clinical services, behavioral supports, active treatment (as defined at § 483.440) or address activities of daily living (such as those described in § 483.24(b)) for Medicaid-eligible individuals receiving Medicaid services under this part.

(3) *Support Staff* means an individual who is not a direct care worker and who maintains the physical environment of the care facility or supports other services for residents. Support staff may be employed by or contracted or subcontracted with a Medicaid provider or State or local government agency. They include any of the following individuals:

(i) A housekeeper;

(ii) A janitor or environmental services worker;

(iii) A groundskeeper;

(iv) A food service or dietary worker;

(v) A driver responsible for transporting residents; or

(vi) Any other individual who is not a direct care worker and who maintains the physical environment of the care facility or supports other services for Medicaid-eligible individuals receiving Medicaid services under this part.

(b) *Reporting requirements.* The State must report to CMS annually, by delivery system and by facility, the percent of Medicaid payments (which for fee-for-service includes base and supplemental payments as defined by section 1903(bb)(2) of the Social Security Act, and for payments from a managed care organization or prepaid inpatient health plan (as these entities are defined in § 438.2 of this chapter) includes the managed care organization's or prepaid inpatient health plan's contractually negotiated rate, State directed payments as defined in § 438.6(c) of this chapter, pass-

through payments as defined in § 438.6(a) of this chapter for nursing facilities, and any other payments from the managed care organization or prepaid inpatient health plan) for services specified in paragraph (b)(1) of this section, that is spent on compensation for direct care workers and on compensation for support staff, at the time and in the form and manner specified by CMS.

(1) *Services.* Except as provided in paragraph (b)(2) of this section, reporting must be based on all Medicaid payments (including but not limited to FFS base and supplemental payments, and payments from an MCO or PIHP, as applicable) made to nursing facility and ICF/IID providers for Medicaid-covered services, with the exception of services provided in swing bed hospitals as defined in § 440.40(a)(1)(ii)(B) of this chapter.

(2) *Exclusion of specified payments.* The State must exclude from its reporting to CMS payments claimed by the State for Federal financial participation under this part for which Medicaid is not the primary payer.

(c) *Report contents and methodology.*

(1) *Contents.* Reporting must provide information necessary to identify, at the facility level, the percent of Medicaid payments spent on compensation to:

(i) Direct care workers at each nursing facility;

(ii) Support staff at each nursing facility;

(iii) Direct care workers at each ICF/IID, and

(iv) Support staff at each ICF/IID.

(2) *Methodology.* The State must provide information according to the methodology, form, and manner of reporting stipulated by CMS.

(d) *Availability and accessibility requirements.* The State must operate a website consistent with § 435.905(b) of this chapter that provides the results of the reporting requirements specified in paragraphs (b) and (c) of this section. In the case of the State that implements a managed care delivery system under the authority of sections 1915(a), 1915(b), 1932(a), and/or 1115(a) of the Act and that includes nursing facility and/or ICF/IID services in their managed care organization or prepaid inpatient health plan contracts, the State may meet this requirement by linking to individual managed care organization or prepaid inpatient health plan websites. The State must:

(1) Include clear and easy to understand labels on documents and links;

(2) Verify no less than quarterly, the accurate function of the website and the

current accuracy of the information and links; and

(3) Include prominent language on the website explaining that assistance in accessing the required information on the website is available at no cost and include information on the availability of oral interpretation in all languages and written translation available in each non-English language, how to request auxiliary aids and services, and a toll-free and TTY/TDY telephone number.

(e) *Information reported by States.*

CMS must report on its website the results of the reporting requirements specified in paragraphs (b) and (c) of this section that the State reports to CMS.

(f) *Effective Date.* The requirements in this section are effective [4 YEARS AFTER THE EFFECTIVE DATE OF THE FINAL RULE].

PART 483—REQUIREMENTS FOR STATES AND LONG TERM CARE FACILITIES

■ 5. The authority citation for part 483 continues to read as follows:

Authority: 42 U.S.C. 1302, 1320a–7, 1395i, 1395hh and 1396r.

■ 6. Amend § 483.5 by adding the definitions of “Hours per resident day” and “Representative of direct care employees” in alphabetical order to read as follows:

§ 483.5 Definitions.

* * * * *

Hours per resident day. Staffing hours per resident per day is the total number of hours worked by each type of staff divided by the total number of residents as calculated by CMS.

* * * * *

Representative of direct care employees. A representative of direct care employees is an employee of the facility or a third party authorized by direct care employees at the facility to provide expertise and input on behalf of the employees for the purposes of informing a facility assessment.

* * * * *

§ 483.10 [Amended]

■ 7. Amend paragraph (h)(3)(i) by removing the reference “§ 483.70(i)(2)” and adding in its place the reference “§ 483.70(h)(2)”.

§ 483.15 [Amended]

■ 8. Amend paragraph (c)(8) by removing the reference “§ 483.70(l)” and adding in its place the reference “§ 483.70(k)”.

§ 483.35 [Amended]

■ 9. Amend § 483.35 by:

- a. In the introductory text removing the reference “§ 483.70(e)” and adding in its place the reference “§ 483.71”;
- b. Revising paragraphs (a)(1)(i), (ii);
- c. Adding paragraphs (a)(1)(iii) through (v);
- d. In paragraph (a)(2) removing the phrase “paragraph (c)” and adding in its place the phrase “paragraph (e)”;
- e. Revising paragraph (b)(1);
- f. . In paragraph (e)(4) removing the phrase “paragraph (c)” and adding in its place the phrase “paragraph (e)”;
- g. In paragraph (f)(2) removing the phrase “paragraph (d)(1)” and adding in its place the phrase “paragraph (f)(1)”;
- h. Redesignating paragraph (g) as (h);
- i. Adding a new paragraph (g); and
- j. In newly redesignated paragraph (h)(2)(i) removing the phrase “paragraph (e)(1)” and adding in its place the phrase “paragraph (h)(1)”.

The revision and additions read as follows:

§ 483.35 Nursing services.

* * * * *

(a) * * *

(1) * * *

(i) Licensed nurses, including but not limited to a minimum 0.55 hours per resident day for registered nurses (RN); and

(ii) Other nursing personnel, in accordance with § 483.71, including but not limited to a minimum total of 2.45 hours per resident day for nurse aides (NA).

(iii) The 0.55 hours per resident day for RN and 2.45 hours per resident day for NA requirement may be exempted under paragraph (g) of this section for facilities that are found non-compliant and meet the eligibility criteria as determined by the Secretary.

(iv) Determinations of compliance with hours per resident day requirements will be made based on the most recent available quarter of Payroll Based Journal System data submitted in accordance with § 483.70(p) of this part.

(v) Compliance with minimum hours per resident day for RN and NA should not be construed as approval for a facility to staff only to these numerical standards. Facilities must ensure there are adequate staff with the appropriate competencies and skills sets necessary to assure resident safety and to attain or maintain the highest practicable physical, mental, and psychosocial well-being of each resident, as determined by resident assessments, acuity and diagnoses of the facility's resident population in accordance with the facility assessment at § 483.71 of this part.

* * * * *

(b) * * *

(1) Except when waived under paragraph (e) or (f) of this section, the facility must have a registered nurse on site 24 hours per day, for 7 days a week that is available to provide direct resident care.

* * * * *

(g) *Hardship Exemption from the Minimum Hours Per Resident Day Requirements.* A facility may be exempted by the Secretary from the requirements of paragraphs (a)(1)(i) and (ii) of this section if a verifiable hardship exists that prohibits the facility from achieving or maintaining compliance. The facility must meet the four following criteria to qualify for a hardship exemption:

(1) *Location.* The facility is located in an area where:

(i) The supply of applicable healthcare staff (either RN, or NA, or both) is not sufficient to meet area needs as evidenced by a medium (20 percent below the national average) or low (40 percent below the national average) provider-population ratio for nursing workforce; or

(ii) The facility is at least 20 miles from another long-term care facility, as determined by CMS; and

(2) *Good Faith Efforts to Hire.* The facility demonstrates that it has been unable, despite diligent efforts, including offering at least prevailing wages, to recruit and retain appropriate personnel. The information is verified through:

(i) Job listings in commonly used recruitment forums found online at American Job Centers (coordinated by the U.S. Department of Labor's Employment and Training Administration), and other forums as appropriate;

(ii) Documented job vacancies including the number and duration of the vacancies and documentation of offers made, including that they were made at least at prevailing wages;

(iii) Data on the average wages in the Metropolitan Statistical Area in which the facility is located and vacancies by industry as reported by the Bureau of Labor Statistics or by the State's Department of Labor; and

(iv) The facility's staffing plan in accordance with § 483.71(b)(4) of this subpart; and

(3) *Demonstrated Financial Commitment.* The facility demonstrates through documentation the amount of financial resources that the facility expends on nurse staffing relative to revenue.

(4) *Exclusions.* Facilities must not:

(i) Be a Special Focus Facility, pursuant to the Special Focus Facility

Program established under sections 1819(f)(8) and 1919(f)(10) of the Act; or

(ii) Have been cited for having widespread insufficient staffing with resultant resident actual harm or a pattern of insufficient staffing with resultant resident actual harm, or cited at the immediate jeopardy level of severity with respect to insufficient staffing as determined by CMS, within the 12 months preceding the survey during which the facility's non-compliance is identified, or

(iii) Have failed to submit Payroll Based Journal data in accordance with § 483.70(p).

(iv) An exemption under this paragraph does not constitute a waiver of paragraph (b) of this section. Such a waiver must be granted in accordance with paragraph (e) or (f) of this section.

(5) *Determination of Eligibility.* The Secretary will determine eligibility for an exemption based on the criteria in paragraphs (g)(1) through (4) of this section. The facility must provide supporting documentation when requested.

(6) *Timeframe.* The term for a hardship exemption is 1-year, unless the facility becomes an SFF facility or is cited for widespread insufficient staffing with resultant resident actual harm or a pattern of insufficient staffing with resultant resident actual harm. A hardship exemption may be extended on a yearly basis, after the initial 1-year period, if the facility continues to meet the exemption criteria in paragraphs (g)(1) through (4) of this section, as determined by the Secretary. There are no limits on the number of exemptions that an eligible facility can be granted.

* * * * *

§ 483.40 [Amended]

■ 10. Amend § 483.40 by:

■ a. In paragraphs (a) introductory text and (a)(1) removing the reference “§ 483.70(e)” and adding in its place the reference “§ 483.71”; and

■ b. In paragraph (c)(2) by removing the reference “§ 483.70(g)” and adding in its place the reference “§ 483.70(f)”.

§ 483.45 [Amended]

■ 11. Amend § 483.45 in the introductory text by removing the reference “§ 483.70(g)” and adding in its place the reference “§ 483.70(f)”.

§ 483.55 [Amended]

■ 12. In § 483.55 amend paragraphs (a)(1) and (b)(1) by removing the reference “§ 483.70(g)” and adding in its place the reference “§ 483.70(f)”.

§ 483.60 [Amended]

■ 13. In § 483.60 amend paragraph (a) introductory text by removing the

reference “§ 483.70(e)” and adding in its place the reference “§ 483.71”.

§ 483.65 [Amended]

■ 14. In § 483.65 amend paragraph (a)(2) by removing the reference “§ 483.70(g)” and adding in its place the reference “§ 483.70(f)”.

§ 483.70 [Amended]

■ 15. Amend § 483.70 by—

■ a. Removing paragraph (e); and
■ b. Redesignating paragraphs (f) through (q) as paragraphs (e) through (p), respectively.

■ 16. Section § 483.71 is added to subpart B to read as follows:

§ 483.71 Facility Assessment.

The facility must conduct and document a facility-wide assessment to determine what resources are necessary to care for its residents competently during both day-to-day operations (including nights and weekends) and emergencies. The facility must review and update that assessment, as necessary, and at least annually. The facility must also review and update this assessment whenever there is, or the facility plans for, any change that would require a substantial modification to any part of this assessment.

(a) The facility assessment must address or include the following:

(1) The facility’s resident population, including, but not limited to:

(i) Both the number of residents and the facility’s resident capacity;

(ii) The care required by the resident population, using evidence-based, data-driven methods that consider the types of diseases, conditions, physical and behavioral health issues, cognitive disabilities, overall acuity, and other pertinent facts that are present within that population, consistent with and informed by individual resident assessments as required under § 483.20 of this part;

(iii) The staff competencies and skill sets that are necessary to provide the

level and types of care needed for the resident population;

(iv) The physical environment, equipment, services, and other physical plant considerations that are necessary to care for this population; and

(v) Any ethnic, cultural, or religious factors that may potentially affect the care provided by the facility, including, but not limited to, activities and food and nutrition services.

(2) The facility’s resources, including but not limited to the following:

(i) All buildings and/or other physical structures and vehicles;

(ii) Equipment (medical and non-medical);

(iii) Services provided, such as physical therapy, pharmacy, behavioral health, and specific rehabilitation therapies;

(iv) All personnel, including managers, nursing and other direct care staff (both employees and those who provide services under contract), and volunteers, as well as their education and/or training and any competencies related to resident care;

(v) Contracts, memorandums of understanding, or other agreements with third parties to provide services or equipment to the facility during both normal operations and emergencies; and

(vi) Health information technology resources, such as systems for electronically managing patient records and electronically sharing information with other organizations.

(3) A facility-based and community-based risk assessment, utilizing an all-hazards approach as required in § 483.73(a)(1).

(4) The input of facility staff, including, but not limited to nursing home leadership, management, direct care staff, the representatives of direct care employees, and staff providing other services.

(b) The facility must use this facility assessment to:

(1) Inform staffing decisions to ensure that there are a sufficient number of staff

with the appropriate competencies and skill sets necessary to care for its residents’ needs as identified through resident assessments and plans of care as required in § 483.35(a)(3).

(2) Consider specific staffing needs for each resident unit in the facility, and adjust as necessary based on changes to its resident population.

(3) Consider specific staffing needs for each shift, such as day, evening, night, and adjust as necessary based on any changes to its resident population.

(4) Develop and maintain a plan to maximize recruitment and retention of direct care staff.

(5) Inform contingency planning for events that do not require activation of the facility’s emergency plan, but do have the potential to affect resident care, such as, but not limited to, the availability of direct care nurse staffing or other resources needed for resident care.

§ 483.75 [Amended]

■ 17. Amend § 483.75 by:

■ a. In paragraph (c)(2) removing the reference “§ 483.70(e)” and adding in its place the reference “§ 483.71”; and

■ b. In paragraph (e)(3) removing the reference “§ 483.70(e)” and adding in its place the reference “§ 483.71”.

§ 483.80 [Amended]

■ 18. In § 483.80 amend paragraph (a)(1) by removing the reference “§ 483.70(e)” and adding in its place the reference “§ 483.71”.

§ 483.95 [Amended]

■ 19. In § 483.95 amend the introductory text by removing the reference “§ 483.70(e)” and adding in its place the reference “§ 483.71”.

Xavier Becerra,

Secretary, Department of Health and Human Services.

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Part IV

Commodity Futures Trading Commission

17 CFR Parts 37, 38, and 40

Provisions Common to Registered Entities; Proposed Rule

COMMODITY FUTURES TRADING COMMISSION

17 CFR Parts 37, 38, and 40

RIN 3038-AF28

Provisions Common to Registered Entities

AGENCY: Commodity Futures Trading Commission.

ACTION: Notice of proposed rulemaking.

SUMMARY: The Commodity Futures Trading Commission (“Commission”) is proposing to amend the Commission’s regulations under the Commodity Exchange Act (“CEA” or “Act”) that govern how registered entities submit self-certifications, and requests for approval, of their rules, rule amendments, and new products for trading and clearing, as well as the Commission’s review and processing of such submissions. The proposed amendments are intended to clarify, simplify and enhance the utility of those regulations for market participants and the Commission.

DATES: Comments must be received on or before November 6, 2023.

ADDRESSES: You may submit comments, identified by RIN 3038-AF28, by any of the following methods:

- *CFTC Comments Portal:* <https://comments.cftc.gov>. Select the “Submit Comments” link for this rulemaking and follow the instructions on the Public Comment Form.

- *Mail:* Send to Christopher Kirkpatrick, Secretary of the Commission, Commodity Futures Trading Commission, Three Lafayette Centre, 1155 21st Street NW, Washington, DC 20581.

- *Hand Delivery/Courier:* Follow the same instructions as for Mail, above. Please submit your comments using only one of these methods. To avoid possible delays with mail or in-person deliveries, submissions through the CFTC Comments Portal are encouraged.

All comments must be submitted in English, or if not, accompanied by an English translation. Comments will be posted as received to <https://comments.cftc.gov>. You should submit only information that you wish to make available publicly. If you wish the Commission to consider information that may be exempt from disclosure under the Freedom of Information Act (“FOIA”),¹ a petition for confidential treatment of the exempt information may be submitted according to the

procedures established in § 145.9 of the Commission’s regulations.²

The Commission reserves the right, but shall have no obligation, to review, pre-screen, filter, redact, refuse, or remove any or all of your submission from <https://comments.cftc.gov> that it may deem to be inappropriate for publication, such as obscene language. All submissions that have been redacted or removed that contain comments on the merits of the rulemaking will be retained in the public comment file and will be considered as required under the Administrative Procedure Act and other applicable laws, and may be accessible under FOIA.

FOR FURTHER INFORMATION CONTACT:

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I. Background

Part 40 of the Commission’s regulations implements section 5c(c) of the CEA and sets forth provisions that are common to registered entities, including designated contract markets (“DCMs”), derivatives clearing organizations (“DCOs”), swap execution facilities (“SEFs”) and swap data repositories (“SDRs”).³ Part 40 establishes requirements and procedures for registered entities to submit their rules and products to the Commission prior to implementing rules, listing products for trading, or accepting products for clearing. Part 40 generally provides two means for registered entities to submit rules and products to the Commission. Typically, a registered entity elects to certify that

their product or rule complies with the CEA and the Commission regulations.⁴ This process is known as self-certification. Alternatively, a registered entity may seek Commission approval of the product or rule.⁵

The part 40 regulations also provide the Commission’s procedures for review (including approval or non-approval) of such product and rule submissions. The part 40 regulations prescribe certain information that must be made publicly available in connection with an application to become a DCM, SEF, DCO or SDR and when registered entities file new products, new rules and rule amendments.⁶ Additionally, the regulations include special certification provisions for certain rules submitted by systemically important DCOs (“SIDCOs”).⁷

With two exceptions, the Commission last amended the part 40 regulations in 2011,⁸ in connection with implementing various amendments the Dodd-Frank Wall Street Reform and Consumer Protection Act (“Dodd-Frank Act”) made to the CEA. Based on the Commission’s experience applying the part 40 regulations over the ensuing years, the Commission is proposing amendments that are intended to clarify, simplify and enhance the utility of the part 40 regulations for registered entities and the Commission.⁹

⁴ See CEA section 5c(c)(1); 17 CFR 40.2 and 40.6. But see § 40.4 (requiring that a DCM submit for Commission approval any rule that would materially change a term or condition of a contract for future delivery in an agricultural commodity enumerated in CEA section 1a(9) or of an option on such contract or commodity).

⁵ See CEA section 5c(c)(1); 17 CFR 40.3 and 40.5.

⁶ See § 40.8. Regulation § 40.8 is not the subject of this rulemaking.

⁷ See § 40.10.

⁸ Provisions Common to Registered Entities, 76 FR 44776 (July 27, 2011) (the “2011 Final Rule”). In 2021, the Commission made targeted, conforming amendments to § 40.1(j)(1)(vii) and (j)(2)(vii) (the portion of the definition of “terms and conditions” that relates to position limits) to conform this text to reflect the position limits amendments adopted by the Commission at that time. See Position Limits for Derivatives, 86 FR 3236 (January 14, 2021). Additionally, in 2015, the Commission removed from § 40.8 and appendix D to part 40 all references to electronic trading facilities on which significant price discovery contracts are traded or executed to reflect the fact that the Dodd-Frank Act eliminated these facilities from the CEA. See Repeal of the Exempt Commercial Market and Exempt Board of Trade Exemptions, 80 FR 59575 (October 2, 2015).

⁹ As discussed below in note 10, the Commission also proposes to make two conforming, non-substantive changes to update the citations referencing the definition of emergency located in the guidance section regarding Emergency Authority of appendix B for each of parts 37 and 38. Regulation § 40.11 relates to the Commission’s review of certain event contracts and is not the subject of this rulemaking.

² Regulation 145.9. Commission regulations referred to in this release are found at 17 CFR chapter I (2021), and are accessible on the Commission’s website at <https://www.cftc.gov/LawRegulation/CommodityExchangeAct/index.htm>.

³ Section 1a(40) of the CEA defines the term registered entity to include DCMs, DCOs, SEFs and SDRs.

¹ 5 U.S.C. 552.

II. Proposed Amendments

A. Section 40.1—Definitions

1. Formatting Change to § 40.1

Currently, the defined terms in § 40.1 are arranged in alphabetical order, with lettered headers. The Commission proposes to remove the lettered headers and instead arrange the defined terms in § 40.1 solely in alphabetical order,¹⁰ requiring the Commission to make fewer conforming changes to § 40.1 and other regulations when adding or removing defined terms in the future.¹¹

2. Non-Substantive Amendments to the Definition of “Business Day”

The Commission proposes non-substantive changes to the definition of the term “Business day” in § 40.1(a). Currently, the definition of the term “Business day” in § 40.1(a) uses the term “business hour” and defines the term “business hour” to mean “any hour between 8:15 a.m. and 4:45 p.m.” With the exception of § 40.1(a), the term “business hour” is not used in part 40. To enhance the readability of the definition of “Business day,” the Commission proposes to delete the definition of the term “business hour” and all references to the term “business hour” that currently appear in the definition of “Business day” in § 40.1(a). As amended, the term “Business day” would mean the intraday period of time starting at 8:15 a.m. and ending at 4:45 p.m. Eastern Standard Time or Eastern Daylight Savings Time, whichever is currently in effect in Washington, DC, on all days except Saturdays, Sundays, and Federal holidays in Washington, DC.¹²

3. Amendments to the Definitions of Dormant Entities

The Commission proposes to amend the definitions of the terms “Dormant designated contract market,” “Dormant derivatives clearing organization,” “Dormant swap data repository,” and “Dormant swap execution facility” in current § 40.1(c) through (f). These amendments relate to the duration of

inactivity of a registered entity that will result in the registered entity being deemed dormant, and are intended to enhance the clarity and consistency of the relevant regulatory text.

The current definitions in § 40.1(c) and (f) generally provide that a DCM and a SEF, respectively, will become dormant if there is no trading on the entity for a period of approximately 12 months, provided that the entity will not become dormant during the 36-month period following the entity’s initial and original designation or registration, respectively. Similarly, the definition in current § 40.1(d) generally provides that a DCO will become dormant if the entity has not accepted an agreement, contract or transaction for clearing for a period of 12 months, provided that the entity will not become dormant during the 36-month period following the entity’s initial and original registration. The definition in current § 40.1(e) generally provides that an SDR will become dormant if no data has resided on the entity for a period of approximately 12 months.¹³

The definitions are inconsistent and, in some cases, unclear as to how the applicable 12-month and 36-month periods are determined. In particular, the definitions vary in their use of the terms “consecutive” vs “complete” calendar months. Additionally, staff have observed that the phrases “preceding the first day of the most recent calendar month” and “preceding the most recent calendar month” have been a source of uncertainty when calculating whether an entity has become dormant. The Commission has observed that the definitions have been interpreted differently sometimes by registered entities than was intended by the Commission and believes the proposed changes will provide consistency.

To simplify the calculation of how long a registered entity has been inactive and to reduce the potential that market participants may interpret the regulatory language differently, the Commission proposes to amend the regulations to consistently state the time periods in days—i.e., 365 days instead of 12 months, and 1,095 days rather than 36 months.

4. Removal of the Terms “Dormant Contract or Dormant Product” and “Dormant Rule,” and Related Requirements

Regulation § 40.1(b) defines the term “Dormant contract or dormant product,” and § 40.1(g) defines the term “Dormant rule.” If a contract or product of a DCM or SEF is dormant pursuant to § 40.1(b), § 40.2(a) prohibits the DCM or SEF from listing the contract or product until the DCM or SEF either self-certifies that the contract or product to be listed complies with the CEA and Commission regulations pursuant to § 40.2(a) or obtains Commission approval of the contract or product pursuant to § 40.3. Likewise, under § 40.6(a), a registered entity may not implement a rule that has become dormant unless the registered entity either certifies that the rule complies with the CEA and Commission regulations in accordance with § 40.6(a) or obtains Commission approval of the rule pursuant to § 40.5.

The Commission proposes to remove the terms “Dormant contract or dormant product” and “Dormant rule” from § 40.1, and the requirements relating to dormant products and dormant rules from §§ 40.2 and 40.6. At the time the Commission adopted the dormant contract definition and the applicable requirements, contract markets were generally required to obtain Commission approval of any new products prior to listing the products. The CEA no longer requires approval of each contract or product listed by an exchange.¹⁴ Rather, an exchange may list a product after self-certifying that the product to be listed complies with the CEA and Commission regulations in accordance with § 40.2. Given this flexibility, exchanges now typically delist a contract that has no open interest before the contract can be considered dormant through self-certification pursuant to § 40.6(a).

In the Commission’s experience, registrants have effectively managed the removal of dormant products or rules as appropriate, particularly since the adoption of the self-certification process. Furthermore, while the removal of the term “dormant product” would enable a contract that has not been traded for an extended period of time to remain listed, the Commission believes any new trading may not pose concerns regarding market integrity or safety given that a DCM or SEF listing a contract has a continuing obligation to ensure that the contract complies with

¹⁰ The Commission also proposes to make two conforming changes that are necessitated by this proposed change to § 40.1. Specifically, the Commission proposes to update the references to the definition of emergency located in the guidance section regarding Emergency Authority of appendix B for each of parts 37 and 38 such that they reference § 40.1 rather than § 40.1(h). No substance is intended to be changed by these amendments.

¹¹ The Office of the Federal Register prefers the solely alphabetical approach to definitions sections. See *Document Drafting Handbook, Office of the Federal Register* at 2–27 (Revision 1.4, January 7, 2022).

¹² The Commission is not proposing any substantive changes to the definition of “Business day.”

¹³ Unlike the definitions for a dormant DCM, dormant DCO and dormant SEF in § 40.1(c), (d), and (f), respectively, the dormant SDR definition in § 40.1(e) does not provide a 36-month grace period after the entity’s initial and original registration before an SDR may become dormant.

¹⁴ Section 113 of the Commodity Futures Modernization Act of 2000, Appendix E of Public Law 106–554, 114 Stat. 2763 added section 5c(c) to the CEA.

the CEA and Commission's regulations thereunder. In addition, the Commission is unaware of any instances in which the dormancy of a product or rule for an extended period has caused any market or market participant material harm. The Commission preliminarily believes that deleting the definitions would result in little, if any, reduction in market integrity or safety while potentially reducing compliance costs for market participants and oversight costs for the Commission.

Accordingly, the Commission proposes to remove the definitions of "dormant contract or dormant product" and "dormant rule," and all references to "dormant contract or dormant product" and "dormant rule" in the regulations. As discussed above, the Commission will retain its definitions of dormant registered entities, and the rules of a dormant DCM, dormant SEF, dormant DCO, or dormant SDR would need to be approved in connection with the entity being reinstated as a DCM, SEF, DCO or SDR, respectively.¹⁵ Also, products would need to be approved or self-certified in order to be listed for trading by the DCM or SEF offered for clearing by the DCO.¹⁶

5. Amendment to the Definitions of "Rule" and "Terms and Conditions"

The Commission proposes to add "margin methodology" to the definition of "Rule" in § 40.1. Prior to 2011, the definition included a restriction on Commission review of rules relating to margin levels, based on section 8a(7) of the Act.¹⁷ After section 736 of the Dodd-

Frank Act amended section 8a(7) of the Act to remove the restriction on Commission review of rules relating to margin levels,¹⁸ the Commission removed the restriction from the definition of "Rule." Although DCOs have been submitting margin-related rule changes to the Commission since 2011, in order to provide clarity regarding the requirement to submit changes to margin methodologies, the Commission is proposing to revise the definition of "Rule" to include an explicit reference to margin methodology.

The Commission proposes to amend the definition "Terms and conditions" by removing the following items from the scope of the definition such that the items to be removed will no longer be treated as terms and conditions. With respect to a contract for the purchase or sale of a commodity for future delivery or an option on such a contract or an option on a commodity (other than a swap), the Commission proposes to remove "Payment or collection of commodity option premiums or margins" from § 40.1(j)(1)(xi). With respect to a swap, the Commission proposes to remove "Payment or collection of option premiums or margins" from § 40.1(j)(2)(xi). Further, the Commission is proposing to add these items to the categories of rules that may be implemented without certification pursuant to § 40.6(d)(2). The Commission preliminarily believes that registered entities should be able to submit rules or rule amendments governing the payment or collection of these premiums or margins through weekly notices to the Commission pursuant to § 40.6(d)(2) as this will lower the burden for registered entities and still provide sufficient notice to the Commission given the fact that these rules and rule amendments governing the payment or collection of these premiums or margins are general in substance.¹⁹

2011 amendments to part 40. Section 8a(7)(D), as amended by the Dodd-Frank Act, now permits the Commission to alter the rules of a DCO with respect to margin requirements, provided, however, that the Commission may not set specific margin amounts. The Commission eliminated the exclusion of the setting of margin levels from the definition of "rule" in its 2011 Final Rule.

¹⁸ Specifically, section 8a(7) of the Act provides that the Commission is authorized to alter or supplement rules of a DCO including rules with respect to margin requirements, provided that the rules shall be limited to protecting the financial integrity of the DCO, be designed for risk management purposes to protect the financial integrity of transactions, and not set specific margin amounts.

¹⁹ The Commission notes for clarity that these rules and rule amendments do not include details regarding the models used to calculate the premiums or margins.

The Commission requests comment on all aspects of its proposed amendments to § 40.1.

B. Section 40.2—Listing Products for Trading by Certification

1. Proposed Amendments to § 40.2(a)(3)(i) and Appendix D

Regulation § 40.2(a)(3)(i) requires a product certification submission to include a copy of the submission cover sheet in accordance with the instructions in appendix D to part 40. The same requirement is in the part 40 regulations governing the submission of rule certifications and product and rule approval requests. With the development and evolution of the Commission's online portal for the filing of rule and product submissions, the cover sheet information required by appendix D is currently entered by registered entities via the portal and processed and stored in the Commission's online systems, making the cover sheet itself unnecessary.

Accordingly, the Commission proposes to revise § 40.2(a)(3)(i), the analogous provisions in §§ 40.3, 40.5 and 40.6,²⁰ and appendix D to remove the cover sheet requirement and related references. As proposed, appendix D will continue to specify the information that must be entered by a registered entity as part of the filing process, and the Commission will continue to use such information as part of its processing and review of submissions.

Additionally, the Commission proposes to amend appendix D to require a SEF or DCM when submitting a new product to indicate whether the product is a "referenced contract" as such term is defined in § 150.1 and as is described in appendix C to part 150. By way of background, the Commission's amendments to position limits that became effective on March 15, 2021 introduced the term "referenced contract" and incorporated the term "referenced contract" into the regulatory text that defines the term "terms and conditions" in part 40.²¹ As

²⁰ Specifically, the analogous provisions are §§ 40.3(a)(2), 40.5(a)(2) and 40.6(a)(7)(i).

²¹ See 86 FR 3236, 3307 (January 14, 2021) Position Limits for Derivatives (adding the definition of "referenced contract" to § 150.1 and incorporating the term referenced contract into § 40.1(j)(1)(vii) and (j)(2)(vii)). See also Appendix C to Part 150—Guidance Regarding the Definition of Referenced Contract. Generally, the term "referenced contract" as used for purposes of Federal position limits in part 150 and as defined in § 150.1 means either a futures contract or an option on a futures contract whose settlement price is determined by reference, directly or indirectly, to the price of one of 25 physically-settled core referenced futures contracts enumerated in § 150.2, or a swap that qualifies as an "economically

¹⁵ See, e.g., §§ 38.4(a)(2), 37.4(d), and 49.8(b). Similarly, in adopting changes to § 39.4(a) in 2020, the Commission stated that its issuance of an order of registration as a DCO constitutes an approval of the applicant's rules that were submitted as part of the application. 85 FR 4852, Jan. 27, 2020.

¹⁶ See, e.g., §§ 38.4(b), 37.4(d), 40.2, and 40.3.

¹⁷ Prior to the enactment of the CFMA in 2000, section 5a(a)(12)(A) of the Act required that all changes to contract terms and conditions be submitted to the Commission for approval "except those rules relating to the setting of levels of margin." In section 113 of the CFMA, Congress removed section 5a(a)(12)(A) and adopted new section 5c(c), allowing registered entities to amend their rules by self-certification. The new provision did not retain any reference to the exclusion of margin rules. However, section 8a(7) of the Act was not amended by the CFMA except to replace "contract market" with "registered entity", and retained the provision that allowed the Commission to alter or supplement the rules of a DCO, except for rules related to "the setting of levels of margin," thereby creating uncertainty as to whether registered entities could adopt or change margin rules without certifying those rules to the Commission. Because there was no indication that Congress intended to alter the special status of rules relating to the setting of margin levels, the Commission had resolved this ambiguity by excluding the setting of margin levels, with limited exceptions, from the definition of "rule" in Regulation § 40.1(h), as in effect prior to the July

a result, before listing a new contract for trading, a DCM or SEF must determine whether a new contract to be listed is a referenced contract.²² To facilitate market participants' compliance with position limits, Commission staff maintain a workbook of all the referenced contracts that are listed on DCMs and SEFs. To better enable Commission staff to consider whether new contracts to be listed should be added to the workbook in a timely, efficient manner and to review such submissions, the Commission is proposing to amend appendix D to require a DCM or SEF to indicate as part of the filing process if a contract to be listed is a referenced contract. The identification of new products as referenced contracts as part of the filing process will enable the Commission to more efficiently process and review such submissions.

Finally, as a related matter, the Commission is amending the filing format and manner requirement in §§ 40.2(a)(1), 40.3(a)(1), 40.5(a)(1) and 40.6(a)(1) to remove the reference to the "Secretary of" the Commission. The Commission is also proposing to delegate the Commission's authority to specify the format and manner of filing under these regulations to the Directors of the Division of Market Oversight and the Division of Clearing and Risk by adding proposed § 40.7(e).

2. Proposed Amendments to § 40.2(a)(3)(ii)

Currently, the text of §§ 40.2(a)(3)(ii) and 40.3(a)(3) both describe a requirement to submit as part of a self-certification or a voluntary submission for Commission approval, respectively, the rules that set forth a contract's terms and conditions. The two provisions use similar, but slightly different, language.²³ Given that the two provisions use slightly different words, but are both intended to require that the DCM or SEF include a copy of the rules that set forth the contract's terms and conditions, the Commission proposes to amend the text of § 40.2(a)(3)(ii) to mirror the text used in § 40.3(a)(3) so that both provisions use the same

equivalent swap" (as such term is defined in § 150.1) to any of the 25 physically-settled core referenced futures contracts enumerated in § 150.2.

²² See § 40.1(j)(1)(vii) and (j)(2)(vii), and §§ 40.2 and 40.3.

²³ Regulation § 40.2(a)(3)(ii) requires the self-certification to include "a copy of the product's rules including all rules related to its terms and conditions." Regulation 40.3(a)(3) says substantively the same thing, but using different words (requiring the voluntary submission for Commission approval of a product to include "a copy of the rules that set forth the contract's terms and conditions").

language for consistency and avoid any potential misreading that the differences in language between the two provisions are intended to signify a difference in substance.

3. Proposed Amendments to § 40.2(a)(3)(v)

Regulation § 40.2(a)(3)(v) requires a DCM or SEF that self-certifies a product to submit a concise explanation and analysis of the product and its compliance with applicable provisions of the Act, including core principles, and the Commission's regulations thereunder. Staff primarily bases its analysis of the product on the explanation and analysis the DCM or SEF must provide regarding the product's compliance with the Act and Commission regulations, including analysis of the commodity underlying the product. Staff has observed a trend that new product certifications tend not to include sufficient information on the underlying commodity to enable the Commission to complete its analysis, particularly for contracts on new commodities (e.g., rare earth metals) for which staff may have less prior experience. The Commission notes that a DCM or SEF that provides the information described in appendix C to part 38 that applies to a contract would be sufficient for the Commission to determine the compliance of the contract's terms and conditions with the applicable core principles.²⁴

To ensure staff receive adequate information regarding the product and the commodity underlying the product in order to analyze the compliance of self-certified products with the applicable core principles, the Commission proposes the following changes to § 40.2(a)(3)(v). The Commission proposes to amend the text to include references to the "terms and conditions" of the product and to "the underlying commodity" to clarify the Commission's intent that § 40.2(a)(3)(v) requires an explanation and analysis of

²⁴ Appendix C to part 38. Specifically, for the listing of futures contracts, see paragraph (a) of appendix C to part 38. For the listing of futures contracts settled by physical delivery, see paragraph (b) of appendix C to part 38. For the listing of futures contracts settled by cash delivery, see paragraph (c) of appendix C to part 38. For the listing of options on futures contracts, see paragraph (d) of appendix C to part 38. For the listing of security futures products, see paragraph (e) of appendix C to part 38. For the listing of non-price-based contracts, see paragraph (f) of appendix C to part 38. For the listing of swap contracts, see paragraph (g) of appendix C to part 38. See also Appendix B to part 37 (pointing SEFs to appendix C of part 38 for guidance on how to demonstrate compliance with SEF Core Principle 3 for swaps that are settled by physical delivery or cash settlement).

the product's underlying commodity, as well as both the product's terms and conditions, and the product's compliance with the applicable provisions of the Act, including core principles, and the Commission's regulations thereunder. The Commission also proposes to add the words "that is complete with respect to" the product's terms and conditions, the underlying commodity, and the product's compliance with applicable provisions of the Act, including core principles, and the Commission's regulations thereunder to ensure that, although the explanation be concise, it nevertheless has to include an explanation of how and why the contract's terms and conditions comply with the applicable core principles and relate to the cash market of the underlying commodity.²⁵

As noted above, the information described in appendix C to part 38 that applies to a contract would be sufficient for the Commission to determine the compliance of a contract's terms and conditions with the applicable core principles.²⁶ Appendix C to part 38 provides guidance on the quality standards that should be defined for the underlying commodity in the contract's terms and conditions for a futures contract.²⁷ The quality standards used should reflect those used in transactions in the commodity in normal cash marketing channels and comply with those industry established standards.²⁸ Accordingly, to be complete, submissions pursuant to § 40.2(a)(3)(v) should be guided by portions of appendix C to part 38 that apply to the contract being listed.²⁹

To improve the understanding of the level of detail expected by the Commission, the discussion below addresses two common categories of contracts and provides two specific product examples that illustrate the level of detail that would meet the "concise" and "complete" standard to enable the Commission to analyze the compliance of the contract with the applicable core principles.

Generally, when listing a cash settled or physically settled contract on a

²⁵ See § 38.252 which provides, among other things, that the DCM must demonstrate for physical delivery contracts that it monitors a contract's terms and conditions as they relate to the underlying commodity market and to the convergence between the contract price and the price of the underlying commodity and show a good-faith effort to resolve conditions that are interfering with convergence.

²⁶ See note 24.

²⁷ See Appendix C to part 38, paragraph (b)(2)(i)(A) for physically-settled contracts and paragraph (c)(4)(i)(A) for cash-settled contracts.

²⁸ See *id.*

²⁹ See note 24.

commodity, the explanation and analysis the DCM or SEF submits describing the characteristics of the contract's underlying commodity pursuant to § 40.2(a)(3)(v) should include characteristics such as the deliverable commodity's grade, quality and deliverable supply, as applicable, as well as the other applicable requirements described in appendix C to part 38. Appendix C to part 38 provides guidance on the quality standards that should be defined for the underlying commodity in the contract's terms and conditions for a physically-settled futures contract.³⁰ The quality standards used should reflect those used in transactions in the commodity in normal cash marketing channels and comply with those industry established standards.³¹

As a specific example for a physically settled futures contract, when listing a physically settled futures contract on copper, the DCM should specify the acceptable standard of copper that is eligible for delivery on the physically-settled futures contract.³² Today, an acceptable quality standard for copper in the cash market is Grade 1 Electrolytic Copper Cathodes (full plate or cut) that conforms to the latest chemical and physical specifications adopted by the American Society for Testing and Materials for Grade 1 Electrolytic Copper Cathode (B115–00 or its latest revision). If a DCM lists a physically settled futures contract on Grade 1 Electrolytic Copper Cathodes, the only quality of copper allowed for delivery at the settlement of the futures contract would be copper of the quality that meets this industry-set standard, and as a result, the price of the futures contract would reflect the price of only this kind of copper.

Throughout the life of the futures contract up until the time of expiration, copper located in a DCM-approved warehouse of the quality specified in the contract would be eligible to be warranted by the warehouse for delivery on the contract. The price of the

physical copper (Grade 1 Electrolytic Copper Cathode) to which the futures contract settles and the price of the physically settled futures contract on Grade 1 Electrolytic Copper Cathode should match—or converge—at the expiration date. The convergence demonstrates that the futures contract accurately reflects the cash price of the underlying commodity and compliance with DCM Core Principle 3 (that the contract is not readily susceptible to manipulation).

Similarly, when listing a cash-settled contract based on an excluded commodity, the explanation and analysis the DCM or SEF submits describing the characteristics of the contract's underlying commodity should include characteristics such as the rate, index methodology, and pricing source, as applicable, as well as other applicable characteristics described in appendix C to part 38.³³ Appendix C to part 38 provides guidance on the cash settlement price calculation for a cash-settled futures contract.³⁴ Appendix C provides that the cash-settlement price series used by a DCM or SEF to settle a cash settled contract should be reflective of the underlying cash-market of the commodity, publicly available, timely and reliable.³⁵ The DCM or SEF should include this information in its explanation of how the product complies with the applicable provisions of the Act, including core principles, and the Commission's regulations thereunder.

As a specific product example for a cash-settled excluded commodity, when listing a cash-settled futures contract on a stock index price series, such as the S&P 500 (a stock index of large capitalization stocks listed on U.S. stock exchanges), the DCM should specify how the cash settlement price based on the S&P 500 Index is reflective of the underlying cash-market, reliable, publicly available and timely.³⁶ The DCM should describe how the S&P 500 Index price series is reflective of the underlying cash market of domestic large capitalization stocks by describing the methodology for constructing and maintaining the S&P 500 Index. The DCM should describe how the S&P 500 Index is considered by industry as an

accurate and reliable index of large capitalization stocks by describing how the index is used as a benchmark for measuring the movements of the U.S. stock exchanges. The DCM should describe how frequently the index is calculated and where it is disseminated to the market place to describe how the index is publicly available and timely.

The Commission requests comment on all aspects of its proposed amendments to § 40.2.

C. Section 40.3—Voluntary Submission of New Products for Commission Review and Approval

1. Proposed Amendments to § 40.3(a)(4)

Regulation § 40.3(a)(4) requires that when a DCM, SEF or DCO voluntarily submits a new product for Commission review and approval prior to its listing for trading or accepting the product for clearing, the DCM, SEF or DCO must send the Commission an explanation and analysis of the product and its compliance with applicable provisions of the Act, including core principles, and the Commission's regulations thereunder. Currently, staff relies primarily on the explanation and analysis provided pursuant to this requirement to analyze the compliance of a product submitted for review and approval by the Commission, including the explanation and analysis of the commodity underlying the product. The Commission proposes to amend § 40.3(a)(4) to clarify that by “product”, the regulation requires an explanation and analysis “that is complete with respect to” the product's terms and conditions, the underlying commodity and the product's compliance with the applicable provisions of the Act and Commission regulations thereunder.³⁷ This amendment is intended to ensure the Commission receives adequate information regarding the product and the commodity underlying the product to analyze the compliance of the product submitted for voluntary Commission review and approval.

2. Proposed Amendments to § 40.3(a)(10)

Currently, § 40.3(a)(10) provides that when a registered entity voluntarily submits a contract for Commission approval, Commission staff may request additional evidence, information or data to demonstrate that the contract meets, initially or on a continuing basis, the

³⁷ While the Commission proposes to include the word “complete,” the Commission notes that the “explanation and analysis” requirement in proposed § 40.3(a)(4) does not include the qualifier that the submission be “concise” for the same reasons discussed below in note 47.

³⁰ Appendix C to part 38, paragraph (b)(2)(i)(A).

³¹ See *id.* Appendix C also provides that regardless of the type of commodity underlying the contract, the DCM or SEF's explanation and analysis should describe the cash market for the underlying commodity and how the contract's terms and conditions: reflect the cash market transactions in the underlying commodity; meet the risk management needs of prospective users; and promote price discovery of the underlying commodity. Appendix C to part 38, paragraph (a).

³² See Appendix C to part 38, paragraph (b)(2)(i)(A). When listing a cash settled futures contract on copper, the DCM should specify the acceptable standard of copper that underlies the cash price series or the physically-settled futures referenced price used for cash settlement purposes. See Appendix C to part 38, paragraph (c)(4)(i)(A).

³³ See Appendix C to part 38, paragraphs (a) and (c).

³⁴ For example, when listing a cash settled futures contract on the S&P 500 Index, the DCM's contract specifications should describe the index and its methodology.

³⁵ See Appendix C to part 38, paragraphs (a) and (c).

³⁶ Appendix C to part 38, paragraphs (c)(3)(iv) and (v).

requirements of the Act, or other requirement for designation or registration under the Act, or the Commission's regulations or policies thereunder. Upon such request, the registered entity must provide the requested additional evidence, information or data by the open of business two business days after the date staff made such request, or at the conclusion of such extended period agreed to by Commission staff after timely receipt of a written request from the registered entity.

The Commission proposes to remove the two business day deadline from § 40.3(a)(10) and replace it with "the time specified by the Commission staff" to reflect the fact that the two business day deadline is often not practical and that the amount of time the registered entity needs to respond depends on the nature and scope of the requested information.

3. Proposed Amendments to § 40.3(c), (d) and (f)

The Commission proposes to reorganize paragraphs (c) and (d) of § 40.3, which address the Commission's review and determination (*i.e.*, approval or non-approval) of products submitted for Commission approval. More specifically, to enhance the readability of § 40.3(c), the Commission proposes to reorganize § 40.3 so that all of the provisions that may affect the length of the review period of a product submitted for Commission approval pursuant to § 40.3 appear together in § 40.3(c).³⁸ The Commission proposes to reorganize § 40.3(d) to address the Commission's determination, including: approval through the passage of the applicable review period; and non-approval.

Currently, § 40.3(c) provides that all products submitted for Commission approval under § 40.3(c) shall be deemed approved by the Commission 45 days after receipt by the Commission, or at the conclusion of an extended period as provided under § 40.3(d), "unless notified otherwise within the applicable period;" provided that the conditions set forth in § 40.3(c)(1) and (2) are satisfied. The Commission proposes to amend the text of the introductory paragraph in § 40.3(c) (which the Commission proposes to move to § 40.3(d)(1)) to clarify that the phrase "unless notified otherwise

within the applicable period" (which provides a vague reference to the notification involved) means unless the Commission issues a notice of non-approval to the registered entity under paragraph (d)(2) of § 40.3 within the applicable review period.

In addition, the Commission is proposing to amend the condition in § 40.3(c)(2) (which the Commission proposes to move to § 40.3(c)(4)) that must be met for the deemed approval to be effective. Regulation § 40.3(c)(2) currently requires that the submitting entity does not amend the terms or conditions of the product or supplement the request for approval, except as requested by the Commission or for correction of typographical errors, renumbering or other non-substantive revisions, during that period. Any voluntary, substantive amendment by the submitting entity will be treated as a new submission under § 40.3(c)(2). The Commission proposes to amend this condition by removing the phrase, except as requested by the Commission, and the reference to voluntary in the next sentence and by adding text that states that an amendment or supplementation requested by the Commission will be treated as a new submission under § 40.3 and will restart the review period of the submission. As amended, any substantive amendment to the terms or conditions of the product or supplementation to the request for product approval, including any substantive amendment requested by the Commission or any other substantive amendment made voluntarily by the submitting entity, will be treated as a new submission under § 40.3 and will restart the review period of the submission.³⁹ The Commission believes these proposed amendments are necessary to better ensure the Commission has sufficient time to review substantive changes to requests for product approval.

The Commission also proposes to amend § 40.3(d)(1) (which the Commission proposes to move to

§ 40.3(c)(2)) to provide that the Commission may extend the request for a product approval if the submission is incomplete or the requestor does not respond completely to Commission questions in a timely manner. The Commission has the authority to extend their review of a rule approval request submission under current § 40.5(d)(1) if the submission is incomplete or the requestor does not respond completely to Commission questions in a timely manner⁴⁰ and the Commission believes the same ability for reviews of product approval request submissions under § 40.3 would better enable the Commission to review products when requested by registered entities.

The Commission proposes to add § 40.3(c)(5) to extend the review period under proposed § 40.3(c)(1) when the review period would end on a day that is not a business day to instead end on the next business day,⁴¹ and to revise current § 40.3(d)(1), proposed to be redesignated as § 40.3(c)(2), to permit an additional extension of *up to* 45 days. By way of background, § 40.3(d)(1) (which the Commission proposes moving to § 40.3(c)(2)) provides that the Commission may extend the review period for an additional 45 days if the product raises novel or complex issues that require additional time for analysis. Under current § 40.3(c) and (d)(1), the initial 45-day review period and the 45-day extended review period do not exceed the 90 days permitted by section 5c(c)(4)(C) of the CEA,⁴² absent agreement by the requestor to a further extension.⁴³ To ensure that the total review period will not extend beyond 90 days after the request is submitted, the Commission proposes to change the extended review period under § 40.3(d)(1) from "an additional 45 days" to "up to an additional 45 days" in proposed § 40.3(c)(2). For example, if the end of the initial 45-day review period would fall on a Saturday, and is

⁴⁰ Under current § 40.5(d)(1), the timely manner standard is dependent upon the facts and circumstances. The Commission proposes the same timely manner standard for § 40.3(d)(1).

⁴¹ The Commission proposes to revise the heading of § 40.3(c) from "Forty-five day review" to "Commission review" to reflect the fact that the review period may be extended beyond forty-five days due to adjustments so that the review period ends on a business day.

⁴² The relevant portions of section 5c(c)(4)(C) of the Act provide that the Commission shall take final action on the request not later than 90 days after submission of the request, unless the person submitting the request agrees to an extension of the time limitation established under paragraph (c)(4)(C).

⁴³ Because an extension to which a registered entity may agree under proposed § 40.3(c)(3) is not required to be a specified number of days, Commission staff can ensure that the extended period ends on a business day.

³⁸ The Commission proposes these changes to enhance readability and address some confusion regarding the § 40.3 process. The Commission also proposes changes to reorganize § 40.5 to enhance readability and, in general, is proposing parallel structural changes to §§ 40.3 and 40.5 for consistency.

³⁹ One example of a substantive amendment would be changes in the delivery grade or characteristics of the underlying commodity for a physically settled contract that may affect estimated deliverable supply and thus position limits for the contract. Another example would be a change in the price reference series of a new cash-settled contract that settles to a Price Reporting Agency source ("PRA"). Most PRAs have various series on the same commodity that differ from each other depending on characteristics such as geographical location of commodity transaction or commodity quality characteristics. PRA methodologies for the same commodity can differ between PRAs. If an amendment changes a PRA as the source, the underlying methodology for the price series would need to be examined to determine if it is not readily susceptible to manipulation.

extended by proposed § 40.3(c)(5) to Monday, the next business day, for a total of 47 days, any additional extension under proposed § 40.3(c)(2) could not exceed 43 days ($47 + 43 = 90$).

The Commission also proposes to make explicit in proposed § 40.3(c)(3) that the Commission may at any time extend its review period for any period of time, provided that it does so with the written agreement of the registered entity.⁴⁴

Additionally, the Commission is proposing to amend § 40.3(f)(1) (which the Commission proposes to move to § 40.3(e)(1)). Current § 40.3(f)(1) provides that notification to a registered entity under paragraph (e) of § 40.3 of the Commission's determination not to approve a product does not prejudice the entity from subsequently submitting a revised version of the product for Commission approval or from submitting the product as initially proposed pursuant to a supplemented submission. The Commission believes that amending the text by replacing the word "prejudice" with "prevent", replacing the words "pursuant to" with "in", adding the phrase "the revised or supplemented submission will be reviewed without prejudice" at the end, and inserting two commas will help avoid any confusion as to the effect of the non-approval. Also, the changes to the paragraph would improve consistency with §§ 40.5(e)(1) and 40.6(c)(5)(i).

Finally, the Commission proposes to amend § 40.3(f)(2) (which the Commission proposes to move to § 40.3(e)(2)). Currently, the section provides that notification to a registered entity under paragraph (e) of § 40.3 of the Commission's refusal to approve a product shall be presumptive evidence that the entity may not truthfully certify under § 40.2 that the same, or substantially the same, product does not violate the Act or the Commission's regulations thereunder. The Commission believes that amending the text by replacing the words "refusal" with "determination not"—as well as replacing the words "does not violate the Act" with "complies with the Act"—will have the effect of increasing clarity and provide consistency with §§ 40.2(a)(3)(iv) and 40.5(f)(2) (which the Commission proposes to be redesignated as § 40.5(e)(2)).

The Commission requests comment on all aspects of its proposed amendments to § 40.3.

D. Section 40.4—Amendments to Terms or Conditions of Enumerated Agricultural Products

1. Clarification Regarding Scope of § 40.4(a) and Materiality Under § 40.4

Regulation § 40.4(a) requires a DCM to submit rule changes that would materially change a term or condition of a contract on an agricultural product enumerated in section 1a(9) of the CEA with open interest for Commission approval under the procedures of § 40.5. The Commission notes that § 40.4(a) applies strictly to rules that materially change a product's economic terms and conditions, and does not apply to other rules. To ensure this is clear, the Commission proposes to add the word "product's" to the text of § 40.4(a) to modify "term or condition" as used therein and to replace the words "should not be submitted under this section" with the words "are not required by this section to be submitted for Commission approval under the procedures of § 40.5."

By way of background, when a registered entity submits a change to any terms or conditions of a contract on an agricultural product enumerated in section 1a(9) of the CEA with open interest, the DCM's assessment of materiality affects whether the registered entity submits the change for Commission approval under § 40.5 (as is required for material changes). A DCM may file a change that falls within any of the four types of discrete changes that the Commission enumerates in § 40.4(b)(1) through (4) through self-certification or notice filing, as applicable.⁴⁵ For any other rule that the DCM believes to be non-material, § 40.4(b)(5) sets forth a process for the DCM to implement the change through self-certification pursuant to § 40.6(a). In order for a DCM to self-certify the change, § 40.4(b)(5) requires the DCM to make a non-materiality filing and explain why it considers the rule change to be "non-material."

To assist a DCM in assessing and explaining whether a change to the terms and conditions of a contract on an agricultural product enumerated in section 1a(9) of the CEA that has open interest is a material change (and thus should be filed under § 40.5 pursuant to § 40.4(a)) or is non-material (and thus

can be implemented through the § 40.6(a) self-certification process in accordance with § 40.4(b)(5)), the Commission proposes to add an appendix E to part 40 and to include therein the criteria that the Commission generally considers as evidence that an enumerated agricultural product rule change is non-material under § 40.4(b)(5). Specifically, proposed appendix E to part 40 provides that a non-material change: should not affect a reasonable trader's decision to enter into, or maintain, a position; should not affect a reasonable trader's decision to make or take delivery on the contract or to exercise an option on the contract; and should not have an effect on the value of existing positions, including, but not limited to, a change affecting the price of the contract due to a change in the commodity quality characteristics of the existing contract, a change to the size of the existing contract, or a change to a cost of effecting delivery for the existing contract.

2. Proposed Amendments to § 40.4(b)

The Commission proposes amendments to § 40.4(b)(1) through (5) to enhance the readability, consistency and clarity of this regulatory text. Specifically, the Commission proposes to clarify that the intent of § 40.4(b) is that the rules and rule amendments identified as non-material need not be submitted for Commission approval under the procedures of § 40.5 by replacing the text stating that the rules and rule amendments enumerated in § 40.4(b) as not material "should not be submitted under this section" with text stating that such rules and rule amendments "are not required by this section to be submitted for Commission approval under the procedures of § 40.5." The Commission also proposes to replace the word "changes" in each of § 40.4(b)(1) through (4) with "rules or rule amendments" so that the text of paragraphs (b)(1) through (4) use the same language as the text used in the introductory paragraph of § 40.4(b). Additionally, the Commission proposes to replace the word "if" in each of § 40.4(b)(1), (3) and (4) with the words "provided that they are" to clarify (and address confusion) that the implementation specified in the applicable paragraph (§ 40.4(b)(1), (3) and (4)) is a condition that must be satisfied in order to rely upon § 40.4(b)(1), (3) or (4), as applicable. None of these amendments are intended to alter the substance of § 40.4.

The Commission proposes to remove the reference to "changes in no cancellation ranges" in § 40.4(b)(3). As discussed below in section II.E.4, the

⁴⁴ Current § 40.3(d)(2) provides the Commission with authority to extend the review period with the written agreement of the registered entity. The proposed amendment in § 40.3(c)(3) would ensure it is clear that the authority also applies during any extended review period.

⁴⁵ Given that the Commission states specifically in § 40.4(b)(1) through (4) that the changes covered therein are not material, a DCM filing a change under § 40.4(b)(1) through (4) does not need to file a non-materiality explanation.

Commission proposes to amend § 40.6(d) to allow a registered entity to file rules and rule amendments governing changes in no cancellation ranges pursuant to the notification procedures of § 40.6(d). By filing rules and rule amendments governing no cancellation ranges pursuant to the notification procedures of § 40.6(d), such rules and rule amendments would be non-material pursuant to § 40.4(b)(1), making the current reference to “changes in no cancellation ranges” in § 40.4(b)(3) redundant and unnecessary.

Additionally, to enhance readability of § 40.4(b)(5), the Commission proposes to move from § 40.4(b)(5)(iii) to § 40.4(b)(5)(i) the text requiring that a rule or rule amendment filed under § 40.4(b)(5) be submitted pursuant to the procedures of § 40.6(a), and to delete redundant text in § 40.4(b)(5)(iii). The Commission proposes to add text to § 40.4(b)(5)(ii) to provide that when a DCM provides an explanation as to why it considers the rule “non-material,” the DCM shall, if applicable, include a previously approved rule or rule amendment that is, in substance, the same as the current non-material rule or rule amendment. The Commission believes the copy of the previously approved rule or rule amendment would provide market participants with context and background that would be helpful information in understanding the current rule or rule amendment and why it is non-material.

The Commission requests comment on all aspects of its proposed amendments to § 40.4.

E. Section 40.5—Voluntary Submission of Rules for Commission Review and Approval

1. Reorganization and Clarification of § 40.5

The Commission proposes to reorganize and clarify § 40.5, which addresses the submission by registered entities of requests for Commission approval of new rules and rule amendments and the Commission’s review of such rules and rule amendments. Under the proposed amendments, paragraphs (a) and (b) of § 40.5 would remain largely unchanged, with the exception of conforming amendments previously discussed,⁴⁶ as well as the following two changes.

The Commission proposes to clarify that § 40.5(a)(5) requires an explanation and analysis “that is complete with respect to” the proposed rule changes for the same reasons the language

regarding completeness is being proposed in §§ 40.2(a)(3)(v), 40.3(a)(4), and 40.6(a)(7)(v).⁴⁷

Currently, § 40.5(a)(6) provides that the registered entity shall certify that it posted a notice of the “pending rule with the Commission.” To clarify that the “pending rule” is intended to mean the registered entity’s request for approval, the Commission proposes to amend the text of § 40.5(a)(6) to replace the words “pending rule with the Commission” with the words “a notice of its request for Commission approval of the new rule or rule amendment”. The proposed language would also use language that is consistent with § 40.3(a)(9).⁴⁸

The Commission proposes to reorganize paragraphs (c) and (d) of § 40.5, which address the Commission’s review and determination (*i.e.*, approval or non-approval) of new rules and rule amendments. More specifically, to enhance the readability of § 40.5(c), the Commission proposes to reorganize § 40.5 so that all of the provisions that may affect the length of the review period of a rule submitted for Commission approval pursuant to § 40.5 appear together in § 40.5(c)—with the exception of expedited approval (which the Commission proposes to move to § 40.5(d)(2)).⁴⁹ The Commission proposes to add § 40.5(c)(6) to extend the review period under proposed § 40.5(c)(1)⁵⁰ when the review period would end on a day that is not a business day to instead end on the next business day,⁵¹ and to revise current § 40.5(d)(1), proposed to be redesignated

as § 40.5(c)(2), to permit an additional extension of *up to* 45 days.

By way of background, § 40.5(d)(1) (which the Commission proposes moving to § 40.5(c)(2)) provides that the Commission may extend the review period for an additional 45 days if the proposed rule raises novel or complex issues that require additional time for review or is of major economic significance, the submission is incomplete or the requestor does not respond completely to Commission questions in a timely manner. Under current § 40.5(c) and (d)(1), the initial 45-day review period and the 45-day extended review period do not exceed the 90 days permitted by section 5c(c)(4)(C) of the CEA, absent agreement by the requestor to a further extension. To ensure that the total review period will not extend beyond 90 days after the request is submitted, the Commission proposes to change the extended review period under § 40.5(c)(2) from “an additional 45 days” to “up to an additional 45 days.” For example, if the end of the initial 45-day review period would fall on a Saturday, and is extended by proposed § 40.5(c)(6) to Monday, the next business day, for a total of 47 days, any additional extension under proposed § 40.5(c)(2) could not exceed 43 days (47 + 43 = 90).

The other changes to the regulatory text in proposed § 40.5(c) are non-substantive and are not intended to alter the length of time the Commission will review a rule submitted for Commission approval under § 40.5(a).⁵² As part of these non-substantive amendments, the Commission proposes to make explicit in proposed § 40.5(c)(3) that the Commission may at any time extend its review period for any period of time, provided that it does so with the written agreement of the registered entity.⁵³

The Commission proposes to reorganize § 40.5(d) to address the Commission’s determination, including: approval through the passage of the applicable review period; expedited approval; and non-approval. Current § 40.5(g), which addresses expedited approval of a proposed rule or rule amendment, would be redesignated as

⁴⁷ While the Commission proposes to include the word “complete,” the Commission notes that the “explanation and analysis” requirement in proposed § 40.5(a)(5) does not include the qualifier that the submission be “concise.” See the 2011 Final Rule at 44782 (explaining that the “explanation and analysis” requirement in final § 40.5(a)(5) does not include the qualifier that the submission be “concise.” The Commission requires registered entities to provide a more detailed explanation and analysis of rules voluntarily submitted for Commission approval under the provisions of § 40.5.).

⁴⁸ The Commission also proposes to eliminate the word “which” from the second sentence of § 40.5(a)(6) to improve clarity and readability.

⁴⁹ The Commission proposes these changes to enhance readability and address some confusion regarding the § 40.5 process. Changes to proposed § 40.5(d)(2) are discussed below.

⁵⁰ Because an extension to which a registered entity may agree under § 40.5(c)(3) is not required to be a specified number of days, Commission staff can ensure that the extended period ends on a business day.

⁵¹ The Commission proposes to revise the heading of § 40.5(c) from “Forty-five-day review” to “Commission review” to reflect the fact that the review period may be extended beyond forty-five days due to adjustments so that the review period ends on a business day.

⁵² The Commission proposes to add descriptive language into § 40.5(c)(5) to provide the reader with context to better understand the interaction of the provisions in proposed §§ 40.4(b)(5) and 40.5(c)(5). The descriptive language added to § 40.5(c)(5) is consistent with current § 40.5(c)(2). For a discussion of the materiality determination under § 40.4(b)(5), see section II.D above.

⁵³ Current § 40.5(d)(2) provides the Commission authority to extend the review period with the written agreement of the registered entity. The proposed amendment in § 40.5(c)(3) would ensure it is clear that the authority also applies during any extended review period.

⁴⁶ The amendments include the removal of references to a cover sheet, dormant rules, and submission to the Secretary of the Commission.

§ 40.5(d)(2) and amended to remove the limitations that: expedited approval may be used only for “changes to” a proposed rule or a rule amendment; and the changes to the proposed rule or rule amendment may only be approved through expedited approval if they are consistent with “standards approved or established by the Commission.” The Commission believes that the quoted text that these amendments will remove is not necessary or could be misconstrued in connection with the ability of the Commission to approve proposed rules and rule amendments that are consistent with the CEA and Commission regulations on an expedited basis.⁵⁴ Current § 40.5(f), which addresses the impact of non-approval, would be redesignated as § 40.5(e).

The current text of § 40.5(f)(1) (proposed to be redesignated as § 40.5(e)(1)) provides that notification to a registered entity under paragraph (d)(3) of § 40.5 does not prevent the registered entity from subsequently submitting a revised version of a proposed rule or rule amendment for Commission review and approval, or from submitting the new rule or rule amendment as initially proposed in a supplemented submission, and that the revised submission will be reviewed without prejudice. To clarify that notification to a registered entity under paragraph (d)(3) means a notification of non-approval by the Commission, the Commission proposes to amend the text of § 40.5(f)(1) to include “of the Commission’s determination not to approve a new rule or rule amendment”. The Commission also proposes to add the words “or supplemented” to the text to clarify that supplemented submissions are reviewed without prejudice.⁵⁵ The Commission believes this will help avoid any potential confusion and make the section more consistent with § 40.5(f)(2) (proposed to be redesignated as § 40.5(e)(2)).

Current § 40.5(f)(2) (proposed to be redesignated as § 40.5(e)(2)) provides that notification to a registered entity under paragraph (d)(3) of § 40.5 of the Commission’s determination not to approve a proposed rule or rule amendment is presumptive evidence

that the entity may not truthfully certify the same, or substantially the same, proposed rule or rule amendment under § 40.6(a). To clarify that certification under § 40.6(a) is referring to the certification that the rule or rule amendment complies with the CEA and the Commission’s regulations, the Commission proposes to amend the text of § 40.5(f)(2) to add “complies with the Act and the Commission’s regulations thereunder” and move the reference to § 40.6(a) to earlier in the text. The Commission believes these changes will enhance clarity and improve context.⁵⁶

The Commission requests comment on all aspects of its proposed amendments to § 40.5.

F. Section 40.6—Self-Certification of Rules

1. Proposed Amendments to 40.6(a)

Regulation § 40.6(a) sets forth the submission requirements for rule certifications under CEA section 5c(c)(1). The Commission proposes various non-substantive amendments to § 40.6(a) to enhance its clarity. The proposed non-substantive amendments include: revising the introductory text of § 40.6(a), including the heading, to better reflect the content of the regulation; moving the requirements for delisting of products with no open interest from the introductory text to a new § 40.6(a)(9); and revising the heading and ordering of § 40.6(a)(6) to better reflect its purposes.⁵⁷ The Commission also proposes to remove references to dormant rules, the submission cover sheet, and the Secretary of the Commission, as previously discussed, and to correct the reference to the statutory definition of the term commodity in § 40.6(a)(5) from “section 1a(4) of the Act” to “section 1a(9) of the Act.”

The Commission proposes to replace the word “of” in current § 40.6(a)(7)(v) with the words “that is complete with respect to.” This condition would then read as shown in the proposed revised text of § 40.6(a)(7)(v) presented in this Notice of Proposed Rulemaking. The Commission has previously explained that like the explanation and analysis required for new product submissions, the explanation and analysis of certified rules or rule amendments should be a

clear and informative—but not necessarily lengthy—discussion of the submission, the factors leading to the adoption of the rule or rule amendment, and the expected impact of the rule or rule amendment on the public and market participants.⁵⁸ Similar to the discussion above in section II.B.3 regarding the level of detail in the explanation and analysis provided in new contract submissions, the Commission has found that some new rule submissions, while being concise, have not provided sufficient detail for staff to evaluate compliance of the proposed rule. Adding the words “that is complete with respect to” to current § 40.6(a)(7)(v) is intended to add more direction to submitters that, while the required explanation be concise, it must also be sufficiently comprehensive to address the operation, purpose, and effect of the proposed rule or rule amendment and its compliance with applicable provisions of the Act, including core principles, and the Commission’s regulations.

As set forth in the current introductory text to § 40.6(a), the delisting or withdrawal of the certification of a product with no open interest must comply with the submission and certification requirements in § 40.6(a)(1) and (2) and § 40.6(a)(7). The Commission proposes to move this provision from the introductory paragraph of § 40.6(a) to new § 40.6(a)(9) to enhance the readability of § 40.6(a) and clarify the provision. Specifically, proposed new § 40.6(a)(9) would explicitly state that a new rule or a rule amendment that delists, or withdraws the certification of, a product with no open interest may become effective immediately upon the filing of the submission, provided that the submission is made in compliance with § 40.6(a)(1) and (2) and § 40.6(a)(7). The Commission notes that while the current introductory text to § 40.6(a) is intended to enable a registered entity to delist, or withdraw a certification of, a product with no open interest immediately upon a submission,⁵⁹ the current provision has not been well understood and it would be useful to

⁵⁸ 2011 Final Rule at 44782–44783.

⁵⁹ *Id.* at 44783 (explaining that the Commission, in consideration of comments from both CME and OCX, determined to amend § 40.6(a) to make rules delisting or withdrawing the certification of products effective upon submission to the Commission. The Commission agreed that such submissions should be exempt from the 10-business-day review period in order to avoid complicating the delisting of the product by providing market participants an opportunity to enter into contracts between the time period of submission and the effective date of the rule.).

⁵⁴ The Commission also proposes to replace the word “under” with “in compliance with” in § 40.5(d)(1) to clarify that consideration for approval is contingent upon complying with the requirements of § 40.5(a).

⁵⁵ The Commission additionally proposes to non-substantively revise § 40.5(f)(1) to include two new commas. The Commission believes this will improve readability and reduce the risk of confusion.

⁵⁶ These changes also make this language consistent with the corresponding language in §§ 40.3 and 40.5.

⁵⁷ The Commission also proposes to amend § 40.6(a)(6)(ii) by adding the words “or may be submitted pursuant to § 40.5” to clarify that new rules or rule amendments that establish standards for responding to an emergency may be either certified pursuant to § 40.6(a) or submitted for Commission approval pursuant to § 40.5.

clarify by adding an explicit statement into the regulatory text.

2. Proposed Amendments to § 40.6(b)

Regulation § 40.6(b) sets forth the Commission's review period for a rule certification under § 40.6(a). The regulation provides the Commission with a 10-business day review period after which the rule is deemed certified, unless the rule is stayed by the Commission during the review period. The Commission proposes to amend § 40.6(b) to provide that any substantive amendment or supplementation of the rule submission will be deemed a new submission and restart the 10-business day review period, unless the amendment or supplementation is made for correction of typographical errors, renumbering or other non-substantive revisions. The proposed amendments are intended to preserve the Commission's 10-business day review period where a registered entity makes a substantive change to a rule certification.

3. Proposed Amendments to § 40.6(c)

Regulation § 40.6(c) sets forth the Commission's authority and procedures for staying a submission pursuant to § 40.6(a). The Commission proposes to add the phrase "and can be implemented" in § 40.6(c)(3) in order to make clear that upon the expiration of a stay (without Commission objection), the registered entity may opt to implement the rule at a later time.⁶⁰

The Commission proposes to amend § 40.6 by adding a new § 40.6(c)(5) to address the effect of a Commission objection to a rule submitted pursuant to § 40.6(a). The proposed provision is based on the similar provision in current § 40.5(f) (Effect of non-approval). Proposed § 40.6(c)(5)(ii) would provide that a Commission objection to a rule certification pursuant to § 40.6(c)(3) is presumptive evidence that the entity may not truthfully certify that the same, or substantially the same, rule complies with the Act and the Commission's regulations. Proposed § 40.6(c)(5)(i) would provide that a Commission objection does not, however, prevent the registered entity from subsequently submitting a revised or supplemented version of the proposed rule or rule amendment for review and approval or for certification. As discussed above with respect to current § 40.5(f), the revisions must provide a substantive basis to treat the

⁶⁰ The Commission also proposes to change the reference in § 40.6(c)(3) from "proposed certification" to "certification."

revised rule differently from the previously submitted rule.

4. Proposed Amendments to § 40.6(d)

Regulation § 40.6(d)(2) sets forth various categories of rules that may be implemented by a registered entity without certification, provided that the registered entity complies with the weekly notification requirements in § 40.6(d)(1). The Commission proposes to add the following new categories of rules to § 40.6(d)(2): updates to email addresses or other contact information that market participants use to submit block trades; amendments to existing trading months; with respect to a contract for the purchase or sale of a commodity for future delivery or an option on such a contract or an option on a commodity (other than a swap), payment or collection of commodity options premiums or margins and changes to no cancellation ranges; and with respect to a swap, payment or collection of option premiums or margins. The Commission believes updates to contact information for the submission of block trades are not substantive for compliance purposes and need not be subject to self-certification and Commission review requirements of § 40.6(a). As discussed above in section II.A.5, the Commission preliminarily believes that registered entities should be able to submit rules or rule amendments governing the payment or collection of these premiums or margins (which are currently within the definition of terms and conditions in § 40.1) through weekly notices to the Commission pursuant to § 40.6(d)(2) as this will lower the burden for registered entities and still provide sufficient notice to the Commission. The Commission also preliminarily believes that registered entities should be able to submit rules or rule amendments that change no cancellation ranges or amend existing trading months through weekly notices to the Commission pursuant to § 40.6(d)(2) as this will lower the burden for registered entities to implement such changes and still provide sufficient notice to the Commission.

Regulation § 40.6(d)(3) currently sets forth various categories of rules that may be implemented without certification or notice to the Commission. The Commission proposes to amend current § 40.6(d)(3)(ii)(E)(1) (which would become § 40.6(e)(2)(v)(A)) to add the words "per contract" to be consistent with the corresponding provision in § 40.6(d)(2)(v)(A). The Commission also proposes to make a non-substantive amendment to redesignate § 40.6(d)(3) as § 40.6(e) and

make corresponding designation changes to the other paragraphs of the section.⁶¹

The Commission requests comment on all aspects of its proposed amendments to § 40.6. In particular, the Commission requests comment on its proposed new categories of rules that may be filed pursuant to § 40.6(d)(2). The Commission further requests comments on the following questions: Are there other categories of rules, including rules specific to DCOs, DCMs, SEFs, or SDRs, that should be added to § 40.6(d)(2)? If so, what is the rationale for the addition? Are there categories of rules that should be added to current § 40.6(d)(3) (which is proposed to be moved to § 40.6(e))? If so, what is the rationale for the addition?

In addition, the Commission requests comment on whether the per-contract fee change parameters in § 40.6(d)(2)(v)(A) and 40.6(d)(3)(ii)(E)(1) (the latter of which would become § 40.6(e)(2)(v)(A)) (*i.e.*, above or below one dollar per contract) should be increased given the passage of time since the adoption of the current regulation.

G. Section 40.7—Delegations

1. Proposed Amendments to § 40.7

Regulation § 40.7 sets forth delegations of the Commission's authority to take various actions under the provisions of part 40. The Commission proposes to amend § 40.7 to enhance the regulation's utility and clarity and to add three new delegations.

The Commission proposes to amend § 40.7(b)(3) by adding the words "or relate to" to clarify that this delegation includes authority to approve rules or rule amendments of a registered entity that relate to, but do not establish or amend, speculative limits or position accountability provisions.⁶²

The Commission proposes to delegate under proposed § 40.7(a)(1)(iv) and (v) the authority in proposed §§ 40.3(c)(3) and 40.5(c)(3) to extend the applicable review period set forth in §§ 40.3(c) and 40.5(c), respectively, for the period of time agreed to in writing by the registered entity. The Commission believes these two delegations are appropriate given the agreement by the registered entity to the extension.

⁶¹ The Commission believes the current designations are inconsistent with the introductory text of § 40.6(d).

⁶² The delegation is not intended to and does not affect any substantive authority including, for example, the Commission's authority to bring an enforcement action based on a person's violation of a registered entity's position limit rules pursuant to CEA Section 4a(e).

With respect to proposed § 40.7(a)(1)(iv) and (v), should the Commission impose a maximum period of time that the staff, under delegated authority, may extend the period agreed to in writing by the registered entity? Why or why not? The Commission would still have the authority to extend the time for review for the period agreed to in writing by the registered entity, pursuant to proposed §§ 40.3(c)(3) and 40.5(c)(3).

Also, the Commission proposes to amend the text of § 40.7(a)(5), which delegates the Commission's authority to determine if a proposed rule is material under § 40.4(b)(5). The proposed amendments streamline and simplify the text of the regulation by eliminating text that is not relevant to the delegation as well as an inconsistent reference to § 40.6(d).⁶³

Finally, as discussed above, the Commission is also proposing to add § 40.7(e) to delegate the Commission's authority to specify the format and manner of filing under these regulations to the Directors of the Division of Market Oversight and the Division of Clearing and Risk. Given that technology is used for the Commission to receive submissions from the registered entities under these regulations and the speed at which technology evolves, the Commission believes it is useful for staff to be able to specify the format and manner of filing under these regulations to facilitate the regulations remaining current with technological advances that registered entities and the Commission may use in the future.

The Commission requests comment on all aspects of its proposed amendments to § 40.7.

H. Section 40.10—Special Certification Procedures for Submission of Rules by SIDCOs

1. Definition of “Materiality” in § 40.10

Regulation § 40.10(a), which implements section 806(e) of the Dodd-Frank Act, requires a SIDCO to provide notice to the Commission not less than 60 days in advance of any proposed change to its rules, procedures, or operations that could materially affect the nature or level of risks presented by the SIDCO. When the Commission first adopted this requirement in 2011, it further defined “materially affect the nature or level of risks presented” in

§ 40.10(b) as matters as to which there is a reasonable possibility that the change could affect the performance of essential clearing and settlement functions or the overall nature or level of risk presented by the SIDCO, and notes that such changes may include changes that materially affect financial resources, participant and product eligibility, risk management (including matters relating to margin and stress testing), daily or intraday settlement procedures, default procedures, system safeguards (business continuity and disaster recovery), and governance. The Commission is proposing to revise this definition.

In the more than a decade since its adoption, the Commission has found that the definition in § 40.10(b) is so broad and vague that it does not provide meaningful guidance to SIDCOs. Rather, the determination as to whether a proposed change is subject to advance notice under § 40.10(a) is usually made through discussions between the SIDCOs and Commission staff.

The Commission is therefore proposing to revise the definition in § 40.10(b) to specify that proposed changes that require advance notice under § 40.10 may include, but are not limited to, material changes to the SIDCO's default management plan or default rules or procedures under § 39.16 or § 39.35, program of risk analysis and oversight required under § 39.18, or recovery and wind down plans required under § 39.39; the adoption of a new or materially revised margin methodology; the establishment of a cross-margining program or similar arrangement with another clearing organization; and material changes to its approach to the stress testing required under § 39.13(h)(3), § 39.36(a), or § 39.36(c).

The Commission notes that the “may include, but are not limited to” language means that the examples listed in the definition are not exhaustive and a proposed change that is not specifically mentioned nevertheless may be subject to advance notice if it meets the standard in § 40.10(a), including proposed changes that may fall under the broad categories listed in the current definition in § 40.10(b). The Commission requests comment on whether there are other examples of changes that should be listed in the definition in § 40.10(b), or whether there are other ways the definition could be revised to provide better guidance to SIDCOs as to when advance notice of a proposed change is required under § 40.10.

2. SIDCO Submission Under § 40.10 of Rules Otherwise Required To Be Submitted Under § 40.5

The Commission is proposing to add new § 40.10(i) to require that where any provision of the Commission's regulations requires a DCO to file rules for approval under § 40.5, a SIDCO would be required instead to file those rules under § 40.10, if the rules could materially affect the nature or level of risks presented by the SIDCO. Without this change, a requirement for DCOs to file rules pursuant to § 40.5 could be misinterpreted as relieving a SIDCO from having to file those same rules pursuant to § 40.10, or as creating a duplicative requirement for SIDCOs to submit rules under both § 40.5 and § 40.10. Current regulations that require a DCO to file rules for approval include requests for transfer of open positions in § 39.3(g); holding securities in a futures account pursuant to a portfolio margining program in § 39.4(f); cross-margining programs in § 39.13(i); and commingling of customer positions and associated funds in either a futures or cleared swaps customer account in § 39.15(b).

3. Technical Corrections to § 40.10

The Commission is proposing to revise the first sentence of § 40.10(a), which references a registered DCO that has been designated by the Financial Stability Oversight Council as a systemically important DCO. After § 40.10(a) was adopted, the Commission adopted a definition of “systemically important derivatives clearing organization” in § 39.2. The Commission proposes to change the reference to a systemically important DCO, “as defined in § 39.2 of this chapter.”

The Commission is also proposing to revise § 40.10 to remove references to “the purposes of the Dodd-Frank Act.” At the time § 40.10 was adopted, the Commission was still in the process of incorporating in its regulations changes necessary to reflect the purposes of the Dodd-Frank Act. The Commission subsequently adopted revisions to its DCO regulations that address the Dodd-Frank Act requirements. Accordingly, the references in § 40.10(d) and (h)(3) to the purposes of the Dodd-Frank Act are no longer necessary.

The Commission requests comment on all aspects of its proposed amendments to § 40.10.

I. Technical Correction to Authority Section of Part 40

The Commission is proposing to remove the reference to section 7a of the

⁶³ Current § 40.7(a)(5) provides that if the Commission determines that a rule submitted by a DCM pursuant to § 40.4(b)(5) is not material, the rule may be reported pursuant to the provisions of § 40.6(d). However, § 40.4(b)(5) itself provides that if a rule is deemed not material pursuant to the regulation, it may be filed pursuant to § 40.6(a).

CEA, which was repealed by the Dodd-Frank Act,⁶⁴ from the authority section for part 40.

III. Related Matters

A. Regulatory Flexibility Act

The Regulatory Flexibility Act (“RFA”) requires agencies to consider whether the rules they propose will have a significant economic impact on a substantial number of small entities and, if so, provide a regulatory flexibility analysis with respect to such impact.⁶⁵ The Commission has previously established certain definitions of “small entities” to be used by the Commission in evaluating the impact of its regulations on small entities in accordance with the RFA.⁶⁶ The proposed amendments to part 40 set forth herein would impact DCMs, DCOs, SEFs and SDRs. The Commission has previously determined that DCMs,⁶⁷ DCOs,⁶⁸ SEFs,⁶⁹ and SDRs⁷⁰ are not small entities for purposes of the RFA. Therefore, the Chairman, on behalf of the Commission, pursuant to 5 U.S.C. 605(b), hereby certifies that the proposed rules will not have a significant economic impact on a substantial number of small entities.

B. Paperwork Reduction Act

The Paperwork Reduction Act (“PRA”) ⁷¹ provides that Federal agencies, including the Commission, may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a valid control number from the Office of Management and Budget (“OMB”). This proposed rulemaking contains reporting and recordkeeping requirements that are collections of information within the meaning of the PRA. This section addresses the impact of the proposal on existing information collection requirements associated with part 40 of the Commission’s regulations. Changes to the existing information requirements as a result of this proposal are set forth below. OMB has assigned Control No 3038–0093, “Part 40, Provisions Common to Registered Entities,” to the information collections

associated with these regulations.⁷² The Commission is revising its total burden estimates for this clearance to reflect the proposed amendments.

The proposed amendments will modify the existing information collection entitled Part 40, Provisions Common to Registered Entities, (“Part 40 Information Collection”), which is one of two Information Collections under OMB control number 3038–0093.⁷³ The Part 40 Information Collection encompasses the reporting burdens associated with §§ 40.2 and 40.3 (product submissions); §§ 40.5 and 40.6 (rule submissions); and § 40.10 (SIDCO submissions).

1. Burden Estimates

The proposed amendments to §§ 40.2(a)(3)(v), 40.3(a)(4), and 40.6(a)(7)(v) would clarify that these regulations require registered entities to provide sufficient detail for staff to evaluate compliance of the products and rules registered entities are proposing in their submissions. This additional detail (e.g., about the underlying commodity in a derivatives contract) is necessary to allow Commission staff to assess whether new products and amendments to existing products terms and conditions comply with the CEA and Commission regulations. The Commission anticipates that, if adopted, these amendments are likely to increase reporting burden for registered entities, although some registered entities are already providing this information.⁷⁴ Specifically, for rule submissions under § 40.6, these new requirements would add an additional average of 30 minutes (for a new total of 2.5 hours). For product submissions under §§ 40.2 and 40.3, the proposed amendments would add an additional average 1 hour of burden (for a new total of 22 hours).

The aggregate burden for the Part 40 Information Collection, including the burden from the proposed amendments and the updates to number of responses

based on current Commission data, is estimated as follows:

Product Submissions (§§ 40.2 and 40.3)

For product submissions (§§ 40.2 and 40.3), the number of respondents remains 70. The Commission estimates that for product submissions under §§ 40.2 and 40.3, the proposed amendments to §§ 40.2(a)(3)(v) and 40.3(a)(4) would add an additional average 1 hour of burden (for a new total of 22 hours). Based on an updated review of its annual reporting data for the past three years (2020–2022), the Commission estimates that reporting entities are likely to submit on average an aggregate of 848 reports annually.

Accordingly, the aggregate annual estimate for the reporting burden associated with product submissions (§§ 40.2 and 40.3), as amended by the proposal, is as follows:

Estimated number of respondents: 70.

Estimated number of reports per respondent: 12.⁷⁵

Average number of hours per report: 22.⁷⁶

Estimated gross annual reporting burden (hours): 18,480.⁷⁷

Rule Submissions (§§ 40.5 and 40.6)

For rule submissions (§§ 40.5 and 40.6), the number of respondents remains 70. Although the proposed amendments only increase reporting burden for § 40.6 submissions, the Commission averages §§ 40.5 and 40.6 for PRA purposes. Based on an updated review of recent submission data from 2020–2022, the Commission estimates that respondents submit on average 1,412 reports per year. Further, the Commission estimates that, if the proposed amendments to § 40.6(a)(7)(v) are adopted, each respondent would spend approximately 2.5 hours to prepare and submit the required reports. Accordingly, the aggregate annual estimate for the reporting burden, as amended by the proposal, is as follows:

⁶⁴ Public Law 111–203, title VII, sec. 734(a), July 21, 2010, 124 Stat. 1718 (2010).

⁶⁵ 5 U.S.C. 601 *et seq.*

⁶⁶ See Policy Statement and Establishment of “Small Entities” for purposes of the Regulatory Flexibility Act, 47 FR 18618 (Apr. 30, 1982).

⁶⁷ 47 FR 18618, 18619 (April 30, 1982).

⁶⁸ New Regulatory Framework for Clearing Organizations, 66 FR 45604, 45609 (Aug. 29, 2001).

⁶⁹ Core Principles and Other Requirements for Swap Execution Facilities, 78 FR 33476, 33548 (June 4, 2013).

⁷⁰ Swap Data Repositories, 75 FR 80898, 80926 (Dec. 23, 2010).

⁷¹ 44 U.S.C. 3501 *et seq.*

⁷² For the previously approved estimates, see ICR Reference No. 202102–3038–001 (conclusion date Feb. 24, 2021), available at https://www.reginfo.gov/public/do/PRAViewICR?ref_nbr=202102-3038-001.

⁷³ OMB Control Number 3038–0093 has two Information Collections: Part 40, Provisions Common to Registered Entities; and Part 150, Position Limits. See https://www.reginfo.gov/public/do/PRAViewICR?ref_nbr=202102-3038-001.

⁷⁴ As discussed above in sections II.B.3, II.C.1, and II.F.1, the proposed amendments clarify the Commission’s expectations for the content of submissions, which some registered entities had not been meeting in their recent filings. Although the Commission views the proposed amendments as clarifying filing requirements rather than new requirements, they will increase the reporting burden compared to some registered entities’ current filing practices.

⁷⁵ The 3-year average of total responses for §§ 40.2 and 40.3 submissions combined was 848 responses, calculated by taking the annual total submissions received under §§ 40.2 and 40.3 combined from all entities and averaging them for the years of 2020, 2021 and 2022. The estimated number of reports per respondent is calculated as 848 responses divided by 70 respondents (848 responses/70 respondents = 12 responses per respondent).

⁷⁶ The aggregate number of hours per report for §§ 40.2 and 40.3 adds 1 hour to the existing burden estimate of 21 hours, for a total of 22.

⁷⁷ The estimated gross annual reporting burden (hours) is calculated by multiplying the estimated number of respondents times the estimated number of reports per respondent times the average number of hours per report (70 respondents × 12 reports per respondent × 22 hours per report = 18,480 hours).

Estimated number of respondents: 70.⁷⁸

Estimated number of reports per respondent: 20.⁷⁹

Average number of hours per report: 2.5.⁸⁰

Estimated gross annual reporting burden (hours): 3,500.⁸¹

SIDCO Submissions (§ 40.10)

The burden for SIDCO submissions under § 40.10 is unaffected by the proposed amendments, but has been updated based on review of existing data. Based on an updated review of recent submission data from 2020–2022, the number of SIDCO respondents remains 2 and each respondent typically submits 1 report annually. The Commission estimates that each registered entity will continue to spend on average 50 hours to prepare and submit its report. The aggregate annual estimate burden for § 40.10 submissions is as follows:

Estimated number of respondents: 2.
Estimated number of reports per respondent: 1.⁸²

Average number of hours per report: 50.

Estimated gross annual reporting burden (hours): 100.⁸³

The Commission believes that the other proposed changes to reporting proposed in this NPRM will not increase the burden on the registered entities, and in some cases, may reduce reporting burden. The Commission

anticipates that the following proposed changes will not result in any increase in reporting burden:

Dormancy (§ 40.1(b) and (g)). If the proposed removal of the definitions of “dormant contract or dormant product” and “dormant rule” is adopted, registered entities would no longer be required to make submissions to revive dormant rules or products under §§ 40.2, 40.3, 40.5, or 40.6, other than when required to do so in connection with reinstating a registered entity’s registration or designation from dormancy. Accordingly, the proposed changes would not add any burden on registered entities but may reduce burdens.

Margin methodology rules (§§ 40.1, 40.5, 40.6, 40.10). This provision would add “margin methodology” to the definition of “rule” and thus require the corresponding rule submissions. However, registered entities already have been submitting margin-related rule changes under the current requirements. The proposed change only clarifies existing filing requirements and would not add new reporting burdens.

Terms and conditions; weekly notification (§§ 40.1(j), 40.2, and 40.6(d)(2)). The proposed changes to the definition of “terms and conditions” remove certain categories of information, such as payments and collections of certain margins and premiums that registered entities must submit to the Commission as part of their rule submissions under § 40.6(a). Instead, the information would be filed as rules under the less burdensome weekly notification requirements of § 40.6(d)(2). Contact information for block trades and amendments to “no cancellation ranges” would also be added to the less-burdensome weekly notification category under § 40.6(d)(2).

Cover sheet (§§ 40.2, 40.3, 40.5, 40.6 and Appendix D). The proposal would remove the requirement for filers to submit a cover sheet. The Commission’s electronic portal now collects the required information and generates a cover sheet automatically, allowing the cover-sheet requirement to be removed and reducing burden to the registered entities.

Time period for submitting additional materials for product approvals (§ 40.3(a)(10)). The proposed rule would provide Commission staff greater flexibility to set deadlines for submission of any additional information requested by the Commission for voluntary product approval by registered entities. Currently, the regulation requires an initial two-business-day limit after the

Commission requests the information. The greater staff discretion to set more flexible deadlines would reduce the need for registered entities to submit extension requests, thereby reducing their burden.

Non-materiality criteria (§ 40.4(b)(5)). This provision would provide guidance to registered entities about the non-materiality determination required for certain products. It would not change the submission requirements, but rather help registered entities understand Commission requirements for their submissions. The Commission anticipates that these clarifications are likely to reduce burden for reporting entities by providing more specificity about submission requirements.

Materiality; submission of related rules (§ 40.4(b)(5)(ii)). If adopted, the proposed rules would require that non-materiality submissions include any relevant previous rules or rule amendments that support non-materiality. This could impose additional research, information collection, and filing burdens. However, according to Commission data, fewer than one non-materiality submission is made annually. Accordingly, the Commission anticipates that this requirement is unlikely to impose any material increase in reporting burden for covered entities.

Resubmission (§ 40.6(c)(5)(ii)). This proposed provision describes how an objection by the Commission to a registered entity’s certification of a proposed rule or rule amendment would affect any future filings by the registered entity of the proposed rule or rule amendment to which the Commission objected. Because objections are infrequent, the Commission anticipates that the burden of this provision is unlikely to result in increased burden for reporting entities.

Materiality standard (§ 40.10(b)). Under the proposed amendments, the definition “materially affect the nature or level of risks presented” for SIDCO rule submissions would be revised to provide more useful guidance to registered entities. This change would not affect the reporting burden.

SIDCO submission under § 40.10 of rules otherwise required to be submitted under § 40.5. This proposed amendment would clarify filing requirements, but would not result in a substantive change to filing obligations. The Commission also anticipates that this clarification may reduce burden by eliminating mistaken duplicate filings.

“Referenced contract” data element (Appendix D). Submissions for new products would include a new structured data element in the online

⁷⁸ The estimated number of 70 respondents includes 16 active DCMs, 23 registered SEFs, 15 registered DCOs, 5 provisionally registered SDRs, plus pending applications for those entities.

⁷⁹ As noted above, the proposed amendment increases the burden only for § 40.6 filings (and not for § 40.5 filings). However, the Commission aggregates §§ 40.5 and 40.6 for PRA purposes. The 3-year average of total responses for §§ 40.5 and 40.6 submissions combined was 1,412 responses, calculated by taking the annual total submissions received under §§ 40.5 and 40.6 combined from all entities and averaging them for the years of 2020, 2021 and 2022. The estimated number of reports per respondent is calculated as 1,412 responses divided by 70 respondents (1,412 responses/70 respondents = 20 responses per respondent).

⁸⁰ The aggregate number of hours per report for §§ 40.5 and 40.6 adds 0.5 hours to the existing burden of 2 hours per report, for a total of 2.5.

⁸¹ The estimated gross annual reporting burden (hours) is calculated by multiplying the estimated number of respondents times the estimated number of reports per respondent times the average number of hours per report (70 respondents × 20 reports per respondent × 2.5 hours per report = 3,500 hours).

⁸² The 3-year average of total responses for § 40.10 submissions was 2, calculated by taking the annual total submissions received under § 40.10 from all entities and averaging them for the years of 2020, 2021 and 2022.

⁸³ The estimated gross annual reporting burden (hours) is calculated by multiplying the estimated number of respondents times the estimated number of reports per respondent times the average number of hours per report (2 respondents × 1 reports per respondent × 50 hours per report = 100 hours).

portal indicating whether the product is a “referenced contract.” This information would be the same as the “reference contract” determination set out in § 150.1 and appendix C to part 150. Accordingly, this is a non-substantive revision that will have de minimis impact on reporting burden.

2. Request for Comment

The Commission invites the public and other Federal agencies to comment on any aspect of the proposed information collection requirements discussed above. Pursuant to 44 U.S.C. 3506(c)(2)(B), the Commission will consider public comments on this proposed collection of information in:

(a) Evaluating whether the proposed collection of information is necessary for the proper performance of the functions of the Commission, including whether the information will have a practical use;

(b) Evaluating the accuracy of the estimated burden of the proposed collection of information, including the degree to which the methodology and the assumptions that the Commission employed were valid;

(c) Enhancing the quality, utility, and clarity of the information proposed to be collected; and

(d) Minimizing the burden of the proposed information collection requirements on registered entities, including through the use of appropriate automated, electronic, mechanical, or other technological information collection techniques, *e.g.*, permitting electronic submission of responses.

Copies of the submission from the Commission to OMB are available from the CFTC Clearance Officer, 1155 21st Street NW, Washington, DC 20581, (202) 418–5160 or from <https://RegInfo.gov>. Organizations and individuals desiring to submit comments on the proposed information collection requirements should send those comments to:

- The Office of Information and Regulatory Affairs, Office of Management and Budget, Room 10235, New Executive Office Building, Washington, DC 20503, Attn: Desk Officer of the Commodity Futures Trading Commission;
- (202) 395–6566 (fax); or
- OIRASubmissions@omb.eop.gov (email).

Please provide the Commission with a copy of submitted comments so that comments can be summarized and addressed in the final rulemaking, and please refer to the **ADDRESSES** section of this rulemaking for instructions on submitting comments to the Commission. OMB is required to make a decision concerning the proposed

information collection requirements between 30 and 60 days after publication of this release in the **Federal Register**. Therefore, a comment to OMB is best assured of receiving full consideration if OMB receives it within 30 calendar days of publication of this release. Nothing in the foregoing affects the deadline enumerated above for public comment to the Commission on the proposed rules.

C. Cost Benefit Considerations

1. CEA Section 15(a)

Section 15(a) of the CEA requires the Commission to consider the costs and benefits of its actions before issuing new regulations under the CEA.⁸⁴ By its terms, section 15(a) does not require the Commission to quantify the costs and benefits of a new rule or to determine whether the benefits of the adopted rule outweigh its costs. Rather, section 15(a) requires the Commission to “consider the costs and benefits” of a subject rule.

Section 15(a) further specifies that the costs and benefits of the proposed regulations shall be evaluated in light of five broad areas of market and public concern: (1) protection of market participants and the public; (2) efficiency, competitiveness, and financial integrity of futures markets; (3) price discovery; (4) sound risk management practices; and (5) other public interest considerations. Collectively, these five factors are referred to herein as section 15(a) factors and they are addressed below. In conducting its analysis, the Commission may, in its discretion, give greater weight to any one of the five enumerated areas of concern and may determine that, notwithstanding its costs, a particular rule is necessary or appropriate to protect the public interest or to effectuate any of the provisions or to accomplish any of the purposes of the Act.

The Commission recognizes that the proposed amendments may impose costs. Some of the proposed amendments, however, are format, organizational, and non-substantive changes, which will have no costs. The Commission has endeavored to assess the expected costs and benefits of the proposed amendments in quantitative terms, including PRA related costs, where possible. In situations where the Commission is unable to quantify the costs and benefits, the Commission identifies and considers the costs and benefits of the applicable proposed amendments in qualitative terms. The lack of data and information to estimate

those costs is attributable in part to the nature of the proposed amendments. Additionally, any initial and recurring compliance costs for any particular DCM, DCO, SDR, or SEF will depend on the size, existing infrastructure, practices, and cost structure of the entity.

The Commission generally requests comment on all aspects of its cost benefit considerations, including the identification and assessment of any costs and benefits not discussed herein; data and any other information to assist or otherwise inform the Commission’s ability to quantify or qualitatively describe the costs and benefits of the proposed amendments; and substantiating data, statistics, and any other information to support positions posited by commenters with respect to the Commission’s discussion. The Commission welcomes comment on such costs.

2. Statutory and Regulatory Background

Part 40 of the Commission’s regulations implements section 5c(c) of the CEA and requirements and procedures for registered entities, including DCMs, DCOs, SEFs, SDRs, and SIDCOs, to submit their rules and products to the Commission prior to implementing rules, listing products for trading, or accepting products for clearing. Part 40 generally provides two means for registered entities to submit rules and products to the Commission. There is a self-certification process and a Commission-approval process.⁸⁵

With two exceptions, the Commission last amended the part 40 regulations in 2011.⁸⁶ After years of experience with registered entities following the processes set forth in the part 40 regulations, the Commission is proposing amendments to clarify, simplify, and enhance the utility of, the part 40 regulations for registered entities and the Commission. Changes proposed include amendments to: § 40.1 to simplify the determination of whether a registered entity is deemed dormant and to remove the terms “dormant rule” and “dormant contract or dormant product”; §§ 40.2, 40.3, 40.4, 40.5 and 40.6 and appendix D to part 40 to reflect the development, evolution and use of the Commission’s online portal for the filing of rule and product submissions; and §§ 40.5, 40.6 and 40.7 to reorganize and enhance the regulations’ utility. The Commission also proposes to amend

⁸⁵ See §§ 40.2, 40.3, 40.4, 40.5 and 40.6.

⁸⁶ See 2011 Final Rule; Repeal of the Exempt Commercial Market and Exempt Board of Trade Exemptions, 80 FR 59575 (October 2, 2015); and Position Limits for Derivatives, 86 FR 3236 (January 14, 2021).

⁸⁴ 7 U.S.C. 19(a).

§ 40.10 to provide meaningful guidance to SIDCOs regarding filing instructions for rules that could materially affect the nature or level of risks presented by the SIDCO.

3. Baseline

The baseline for the Commission's consideration of the costs and benefits of this proposed rulemaking is the existing statutory and regulatory framework applicable to DCMs, DCOs, SDRs, and SEFs, in 17 CFR part 40. Current part 40 provides substantive and procedural regulatory requirements for the submission of registered entities' self-certifications, and requests for approval, of new products for trading and clearing and new rules and rule amendments. Current part 40 also establishes guidelines for the Commission's review and processing of registered entities' submissions. Current part 40 regulations explain what information must be made publicly available in relation to the application to become a DCM, DCO, SDR, or SEF, and when registered entities file submissions for new products, new rules and rule amendments. There are also special requirements for certain rules submitted by SIDCOs.

The Commission notes that this cost-benefit consideration is based on its understanding that the derivatives market regulated by the Commission functions internationally with: (1) transactions that involve U.S. entities occurring across different international jurisdictions; (2) some entities organized outside of the United States that are registered with the Commission; and (3) some entities that typically operate both within and outside the United States and that follow substantially similar business practices wherever located. Where the Commission does not specifically refer to matters of location, the discussion of costs and benefits below refers to the effects of the proposed regulations on all relevant derivatives activity, whether based on their actual occurrence in the United States or on their connection with, or effect on U.S. commerce.⁸⁷

4. Proposed Amendments

a. Proposed Amendments to § 40.1 Regarding Dormant Registered Entities, Products, Contracts, and Rules

The Commission proposes to amend its regulations to simplify the calculation of how long a registered entity is inactive and when a registered DCM, DCO, SDR or SEF is deemed dormant. The proposed amendments to § 40.1(c) through (f) would conform the

wording of these sections across the different types of registered entity such that any registered entity would be considered dormant if it is inactive for a period of 365 days, provided that a DCM, DCO or SEF will not become dormant during the 1,095 days following the entity's initial and original order of designation or registration, as applicable. The proposed amendments replace the current regulatory text that measures time periods in months with language that measures the equivalent time in days and the proposed amendments provide for consistent, clear start and end dates for measuring inactivity in connection with dormancy status.

In addition, the Commission proposes removing from § 40.1(b) and (g) the definitions and related requirements for the following terms: "dormant contract or dormant product," and "dormant rule", respectively. As amended, the rules of a dormant DCM, dormant SEF, dormant DCO, or dormant SDR would still need to be approved and the products would still need to be self-certified or approved in connection with the entity being reinstated as a DCM, SEF, DCO or SDR, respectively, but a DCM, SEF, DCO or SDR that is not dormant would no longer need to certify, or seek approval, of a particular rule or product that was already approved or certified solely due to a lack of implementation of the rule or inactivity of the particular product.

i. Benefits

The Commission believes that the proposed changes to the part 40 dormancy regulations will benefit registered entities by helping registrants interpret dormancy period requirements consistently across the relevant registration types and more readily identify when dormancy applies. Additionally, the removal of the terms "dormant contract or dormant product," and "dormant rule" and the associated requirements will remove the administrative and compliance burdens of tracking whether a product or rule has become dormant and the potential costs of recertifying (or obtaining approval of) a dormant contract, product, or rule.

ii. Costs

The Commission expects that registered entities will not incur any increased costs related to the proposed amendments to the current dormancy regulations in part 40. The proposed amendments would eliminate ambiguity regarding how registered entities calculate entity dormancy periods and remove requirements for determining

when a product or rule is considered dormant and related submission requirements for dormant products and rules. Furthermore, by removing the dormant rule regulations in their entirety, the Commission believes that it has generated a cost-savings because entities no longer need to monitor whether rules are dormant. Regarding the potential for a cost in the reduction of market oversight, based on experience with dormant products and rules to date, the Commission preliminarily believes that deleting the definitions would result in little, if any, cost to regulatory oversight because the Commission has observed that registrants typically manage products with no trading activity or inactive rules and the Commission is not aware of any market disruptions resulting from the inactivity of products or rules.

b. Proposed Amendments to § 40.1(i) and (j) Regarding Definitions of Rule and Terms and Conditions

The Commission proposes to amend § 40.1(i)—the definition of the term "rule"—by including "margin methodology" in the list of specific items that are considered a "rule," thereby making explicit what is already understood by current DCOs as implicitly included and codifying the current practice of DCOs submitting margin methodologies as rules to the Commission. The Commission also proposes to amend § 40.1(j)—the definition of the term "terms and conditions"—by removing from the list of terms that are considered "terms and conditions" payments or collections of certain premiums or margins from § 40.1(j)(1)(xi) and (j)(2)(xi). The Commission proposes to add the payments or collections of such premiums or margins, as well as changes to the no cancellation ranges, to the categories of rules that may be submitted without certification pursuant to § 40.6(d)(2).

i. Benefits

The proposed amendments to the definition of "terms and conditions" will reduce compliance burdens for registered entities for rule amendments that address payments or collections of certain premiums or margins and changes to the no cancellation ranges as these could be filed through a weekly notification pursuant to § 40.6(d)(2), which is a less burdensome, less costly process than through the current process under § 40.6(a). The § 40.6(d) process permits a registered entity to implement a rule immediately and without self-certification provided that the entity files a summary notification

⁸⁷ See, e.g., 7 U.S.C. 2(i).

within a week of the rule amendment. The Commission believes that by adding margin-related rule changes to the list of items considered a rule, the Commission is making it clear what type of information is considered a rule and codifying a current practice.

ii. Costs

The Commission believes that the proposed amendment to the definition of “rule” to state explicitly that “margin methodology” is included in the definition will make the term consistent with the current DCO practice and understanding of implicit requirements and therefore will not place any additional cost or burden on registered entities that submit rules to the Commission under part 40.

The Commission does not expect registered entities to incur any additional costs or burdens related to the proposed changes to the definition of “terms and conditions” because the proposed amendments reduce the number of items of information registered entities must submit to the Commission under § 40.6(a). The proposed amendments also allow rules relating to the new categories of information to be implemented more quickly and efficiently by filing such rules in accordance with the requirements of § 40.6(d) (a process which allows a registered entity to implement rules enumerated in § 40.6(d) immediately and without self-certification, provided that the registered entity provides the Commission with a required summary notification of such actions within a week of making the rule amendments).

c. Proposed Amendments to §§ 40.2 and 40.3 Regarding Instructions for Self-Certification and Approval of Products

The Commission is proposing changes to current §§ 40.2 and 40.3 to update Commission processes and clarify filing instructions for registered entities’ submission of products to the Commission. Proposed amendments to §§ 40.2(a)(1) and 40.3(a)(1) remove references to the Commission Secretary. To reflect the fact that registered entities now file submissions through the Commission’s portal and a cover sheet is no longer necessary, proposed changes to §§ 40.2(a)(3) and 40.3(a)(2) remove the references to a cover sheet and replace them with a requirement directing registered entities to provide the information required by appendix D to part 40.

Proposed changes to § 40.2(a)(3) clarify that a registered entity’s concise explanation of a product must also be complete and that the explanation

include the product’s terms and conditions, the underlying commodity, and the product’s compliance with the CEA and associated regulations. Proposed changes to § 40.3(a)(4) clarify that a registered entity’s explanation of a product must be complete and that the explanation include the product’s terms and conditions, the underlying commodity, and the product’s compliance with the CEA and associated regulations.

The proposed amendments to § 40.3(a)(10) eliminate the two-business day deadline for registered entities to respond to Commission staff requests for additional information with respect to product approval requests under § 40.3 and grant Commission staff authority to set response deadlines.

Proposed amendments to § 40.3(c) concern the length of the review period. Proposed amendment to § 40.3(c) make it clear that there is a 45-day review period that the Commission may extend for an additional 45-days, but not to exceed 90 days, if the product raises novel or complex issues that require additional time for analysis. The proposed amendments to § 40.3(c) would also permit the Commission to extend for an additional 45-days if the submission is “incomplete” or the entity doesn’t respond completely to “Commission questions in a timely manner.” The proposed amendments to § 40.3(c) also state that the Commission may extend the review period for any period of time, provided there is written agreement by the registered entity, and that any subsequent, substantive submission of information for a product under a § 40.3 review, whether requested by the Commission or voluntarily provided by the submitting entity, restarts the 45-day review period. The Commission also proposes an amendment to § 40.3(c)(5) providing that if a review period ends on a non-business day, such review is extended to the next business day.

i. Benefits

The Commission believes the removal of the reference to the Secretary in the regulations is beneficial because the deletion modernizes the regulation and makes it consistent with current practices and technologies. For example, submitting entities no longer send submissions to the Commission’s Secretary because they upload documents to the Commission’s portal. The Commission believes that the elimination of the cover sheet requirement under §§ 40.2 and 40.3 removes redundancy because the online portal requires registered entities to input the same information that is

required on the coversheet. The Commission believes that the proposed amendments will benefit registered entities by clarifying the Commission’s intent as to the scope of the explanation and analysis required for the submission of self-certified products pursuant to § 40.2 or for requests for a product approval pursuant to § 40.3. In addition, the proposed amendments will help achieve improved regulatory effectiveness of the product self-certification and approval processes by clarifying the level of detail in the information provided thereby enabling the Commission to more effectively complete its analysis.

The Commission believes that amending § 40.3(a)(10) to eliminate the two business day deadline for responding to Commission request for additional information and granting Commission staff the authority to set a deadline based on the nature of the requested information will provide more flexibility to registered entities and better enable the Commission to manage its resources and conduct more effective oversight over registered entities. The proposed changes to § 40.3(c)(4) also provide that any substantive amendment of a § 40.3 submission would restart the 45-day review period provided in § 40.3(c) to ensure that the Commission has sufficient time to analyze and consider the substantive changes. The restarting of the 45-day review period provided in § 40.3(c) upon a registered entity making any substantive changes to their § 40.3(c) filing would also encourage registered entities to be precise and consult with Commission staff regarding any questions when preparing § 40.3 submissions.

ii. Costs

The Commission believes that there will not be new costs associated with the proposed amendments §§ 40.2 and 40.3 requiring registered entities to provide complete explanations of their products as this information is already required under the current regulations. The current regulations instruct registered entities to submit explanations and analyses about products (which are to be “concise” when self-certifying under § 40.2). The amendment is intended to clarify the Commission’s original intent that the explanation and analysis contain sufficient detail for the Commission to evaluate the submissions for the purpose intended—to assess whether the new products would comply with the CEA and associated regulations. In general, the proposed amendments to §§ 40.2 and 40.3 will provide greater

specificity, leaving less room for regulatory ambiguity, improve the quality of submissions, and reduce any administrative costs registered entities might incur when determining what information must be submitted to the Commission for a product self-certification or product approval request. The proposed amendments eliminating the two-business day deadline and regarding extending the 45-day review period as a result of any substantive amendments to a § 40.3 submission, the submission being “incomplete” or the entity not responding completely to “Commission questions in a timely manner” may cause registered entities to incur costs related to the offering of products or contracts, if the timelines affect product-launch dates.

d. Proposed Amendments to § 40.4 and Appendix E Regarding Terms or Conditions for Enumerated Agricultural Products

Current § 40.4 applies to DCMs and identifies the rules or rule amendments for enumerated agricultural products that are not material and required to be submitted for approval by the Commission when the products being changed have open interest. The Commission proposes to add appendix E to part 40 to provide guidance to DCMs regarding criteria that the Commission considers as evidence that an enumerated agricultural product rule change is non-material. The Commission proposes to add text to current § 40.4(b)(5)(ii) to provide that when a DCM explains why it considers a rule “non-material” pursuant to § 40.4(b)(5), the DCM will, if applicable, include a copy of a previously approved rule or rule amendment that is, in substance, the same as the non-material rule or rule amendment.

i. Benefits

The Commission believes that appendix E to part 40 will aid DCMs in determining whether a proposed change to terms and conditions is material. Specifically, the guidance offered in appendix E should reduce uncertainties and enable DCMs to more efficiently determine whether a proposed change would be material. Additionally, by directing DCMs to include a copy of a previously approved rule or rule amendment with submissions to the Commission pursuant to § 40.4(b)(5)(ii), the Commission believes this effort will provide market participants with context and background that would help them understand the current rule or rule amendment and why it is non-material. In other words, the proposed

amendments will improve transparency for market participants.

ii. Costs

The Commission anticipates appendix E to part 40 might cause DCMs to incur a one-time compliance cost related to understanding appendix E’s guidance to assessing whether a rule is material. The Commission believes that DCMs will incur costs related to researching and collecting previously approved rules or rule amendments for submissions to the Commission.

e. Proposed Amendments to §§ 40.5, 40.6, and 40.10 Regarding Filing Instructions for Rules

The Commission is proposing changes to update Commission processes and clarify submission procedures for a registered entity to voluntarily submit its rules for Commission approval and for a registered entity to self-certify that its rules comply with the Act and Commission regulations. Proposed amendments to §§ 40.5(a)(1) and 40.6(a)(1) remove references to the Commission Secretary. Proposed amendments to §§ 40.5(a)(2) and 40.6(a)(7)(i) remove the references to the cover sheet and replace these with references to the “information required by Appendix D” to part 40.

The proposed amendments to the self-certification submission requirements in § 40.6(a)(7) clarify the Commission’s intent as to the scope of the explanation and analysis that registered entities must submit by adding that the explanation and analysis needs to also be “complete” to ensure enough information is provided so that Commission staff can effectively evaluate the rule submissions. The Commission proposes to move certain language from the introductory paragraph of § 40.6(a) to become § 40.6(a)(9) and to state more clearly therein that a new rule or a rule amendment that delists, or withdraws the certification of, a product with no open interest may become effective immediately upon the filing of the submission, provided that the submission is made in compliance with § 40.6(a)(1) and (2) and (7). In addition, the proposed amendments in § 40.6(b)(2) provide that if a registered entity amends or supplements its initial rule submission under § 40.6(a), the Commission will treat the amendment as a new submission and restart the Commission’s 10-day review period, unless the amendments or supplementation is requested by the Commission or is for non-substantive revisions.

The proposed amendments in § 40.6(c)(5) make it clear that if the Commission stays and ultimately objects to a rule certification, the registered entity may re-submit a revised version with a substantive basis for treating the revised rule differently. Specifically, under the proposed amendment, a Commission objection to a certification of a rule or rule amendment that is inconsistent with the Act or the Commission’s regulations does not prevent a registered entity from submitting a revised proposed rule or rule amendment, or from submitting the new rule or rule amendment as initially proposed, in a supplemental submission, for certification or Commission review and approval. In addition, the objection by the Commission will be treated as presumptive evidence that the entity may not truthfully certify that the same proposed rule or substantially the same rule complies with CEA or the Commission’s regulations.

The proposed amendments to § 40.6(d)(2) expand the categories of rules that may be implemented without a certification to include a number of new categories of rules. The new categories include rule amendments updating email addresses or contact information that market participants use to submit block trades; rules amending existing trading months; rules changing the price ranges within which a trade will not be cancelled; and rules governing the payment or collection of option premiums or margins.⁸⁸ Registered entities may implement rules within these categories by notifying the Commission of the rule changes on a weekly basis pursuant to § 40.6(d)(2). The proposed amendments to § 40.6(d)(2) align with the Commission’s proposal to remove a subset of the same categories of rules from the definition of “terms and conditions” in § 40.1.

For SIDCOs certifying rules that could materially affect the nature or level of risks presented by the SIDCO, the

⁸⁸ Proposed § 40.6(d)(2)(xi) will allow registered entities to submit rules to allow updates of email addresses and contact information that market participants use to submit block trades. Proposed § 40.6(d)(2)(xii) will allow registered entities to submit rules that make changes to no cancellation ranges on contracts for the purchase or sale of a commodity for future delivery or an option on such a contract or an option on a commodity (other than a swap). Proposed § 40.6(d)(2)(xiii) will allow registered entities to submit rules that set or amend the payment or collection of commodity options premiums or margins for the purchase or sale of a commodity for future delivery or an option on such a contract or an option on a commodity (other than a swap). Proposed § 40.6(d)(2)(xiii) will allow registered entities to submit rules that set or amend the payments or collections of option premiums or margins for a swap.

Commission proposes amendments to § 40.10(b) to revise the definition in § 40.10(b) to specify that proposed changes that require advance notice under § 40.10 may include, but are not limited to, material changes to the SIDCO's default management plan or default rules or procedures under § 39.16 or § 39.35, program of risk analysis and oversight required under § 39.18, or recovery and wind down plans required under § 39.39; the adoption of a new or materially revised margin methodology; the establishment of a cross-margining program or similar arrangement with another clearing organization; and material changes to its approach to the stress testing required under §§ 39.13(h)(3), 39.36(a), or 39.36(c). Finally, the Commission proposes an amendment to § 40.10 that expressly states that where any provision of the Commission's regulations requires a DCO to file rules for approval under § 40.5, a SIDCO would be required instead to file those rules under § 40.10, if the rules could materially affect the nature or level of risks presented by the SIDCO.

i. Benefits

The Commission believes the removal of the reference to the Secretary modernizes the regulation and makes it consistent with current practices and technologies. Submitting entities no longer send submissions to the Secretary with a cover sheet because they instead file submissions through uploading documents to, and entering information into, the Commission's portal. The Commission also believes that the elimination of the cover sheet requirement in the text of §§ 40.5 and 40.6 removes redundancy because the online portal requires registered entities to input into the online portal the same information that is required on the cover sheet.

The Commission believes the proposed amendments to § 40.6(a)(7) stating that registered entities must provide complete explanations and analysis to the Commission for self-certifying rules clarifies the Commission's intent as to the scope of the explanation and analysis required by establishing the information and detail to be addressed. This amendment will assist registrants with better understanding what to include in the submissions and the information provided will enable Commission staff to better assess whether the proposed rules comply with the CEA and Commission regulations. Proposed amendment § 40.6(a)(9) will benefit registered entities by providing certainty that a registered entity may immediately

delist, or withdraw a certification of, a product with no open interest upon making a § 40.6(a) submission.

The proposed amendments to § 40.6(b)(2) that state that new information restarts the review period make it clear that the review period will be extended and should encourage registered entities to be thorough to ensure that their initial submissions are complete. The proposed amendments to § 40.6(c)(5) provide clarity regarding the impact of an objection by the Commission to a registered entity's certification of a proposed rule or rule amendment on the grounds that the proposed rule or rule amendment is inconsistent with the Act or the Commission's regulations. Specifically, under the proposed amendment, if a registered entity wishes to resubmit through self-certification a rule or rule amendment that the Commission objected to on the grounds that the proposed rule or rule amendment is inconsistent with the Act or the Commission's regulations, the registered entity must first substantively change or supplement the proposed rule or rule amendment to address the Commission's objection.

The proposed amendments to § 40.6(d)(2) to add new categories of rules that may be implemented through a weekly notification to the Commission will enable registered entities to more quickly implement rules that fall within these new categories as the registered entity may implement these rules immediately and file a weekly notification of any rule amendments within a week of making such amendments. The process of drafting a weekly notification is less involved than the process of submitting the rules pursuant to § 40.6(a), including self-certification that the rules comply with the Act and Commission regulations. Registered entities will be able to redirect their time to other compliance or operational activities. Proposed amendments to § 40.10(b) should aid SIDCOs in making determinations regarding the type of rules that must be submitted to the Commission under § 40.10. Proposed amendment § 40.10(i) also should eliminate potentially duplicative regulatory filings under current § 40.5, and, as a result, SIDCOs will benefit from the cost-savings of not having to dedicate administrative efforts two times for the similar submissions.

ii. Costs

The Commission believes that the proposed amendments to §§ 40.5(a) and 40.6(a), (b)(2), and (c)(5), regarding filing instructions for rules will not place any additional costs or burdens on

registered entities because the proposed amendments clarify the Commission's expectations. The Commission does not believe that there are costs associated with proposed amendments to § 40.5(d). The proposed amendments to § 40.6(a)(7) inform registered entities of the quality of explanations and analysis needed for rule submissions and will lessen the likelihood that registered entities would need to amend or supplement submissions. If the Commission requests additional evidence, information or data pursuant to § 40.6(a)(8), proposed § 40.6(b) may result in an extended review period (as a result of the review period restarting) and the delay in implementation of a rule may impose a cost on a registered entity, depending on the nature of the rule. The Commission does not believe that there are costs associated with proposed amendments to § 40.6(c)(5). The Commission believes that the proposed changes to § 40.10 will not place additional costs or burdens on SIDCOs because they clarify the types of submissions that SIDCOs must file under § 40.10 and eliminate potential duplication in regulatory filings.

f. Proposed Amendments to § 40.7 Regarding Delegation of Authority

The Commission proposes to amend § 40.7 to enhance the utility and clarity of the regulation and add three new delegations. Proposed § 40.7(a)(1)(iv) and (v) delegates the authority in proposed §§ 40.3(c)(3) and 40.5(c)(3) to extend the applicable review period set forth in §§ 40.3(c) and 40.5(c), respectively, for the period of time agreed to in writing by the registered entity. Finally, as discussed above, the Commission is also proposing to add § 40.7(e) to delegate the Commission's authority to specify the format and manner of filing under these regulations to the Directors of the Division of Market Oversight and the Division of Clearing and Risk.

i. Benefits

The proposed amendments to § 40.7 will benefit regulated entities and the public by improving the readability of this regulation because the delegations are organized by the applicable section of part 40 from the which the delegated authorities originated. The Commission believes that delegating the authority in proposed §§ 40.3(c)(3) and 40.5(c)(3) to the Divisions to extend the applicable review period set forth in §§ 40.3(c) and 40.5(c), respectively, for the period of time agreed to in writing by the registered entity will enable the Commission to complete this process more efficiently. The Commission also

believes that delegating authority to the Divisions to specify format and manner of filing in proposed § 40.7(e) also enhances efficiency.

ii. Costs

The Commission expects that there will be no costs incurred by registered entities by the proposed amendments clarifying and amending the authorities delegated to Commission staff under part 40.

g. Proposed Amendments to Appendix D to Part 40

With the development and use of the Commission's online portal for the filing of rule and product submissions, the Commission is proposing amendments to appendix D to part 40 that reorganizes rule text and clarify instructions to registered entities on what information shall be uploaded to the portal. The Commission also is proposing a new requirement that DCMs and SEFs indicate when listing a new product whether the new product meets the definition of "referenced contract" as defined in § 150.1 and described in appendix C to part 150 that is titled "Guidance Regarding the Definition of Reference Contract." Part 150 of the Commission's regulations outlines the requirements for Federal and exchange-set position limits.⁸⁹ Part 150, together with §§ 40.1(j)(1)(vii) and (j)(2)(vii), 40.2(a)(3)(ii) and 40.3(a)(3), require DCMs and SEFs to identify referenced contracts to assess whether a contract is subject to Federal position limits.

i. Benefits

The Commission believes that the proposed amendments to appendix D to part 40 will provide several benefits. First, the proposed changes clarify and modernize instructions. The current rule text is more applicable to paper submissions. The proposed text is consistent with the current technological practice where registered entities upload product and rule submissions using the Commission's online portal. Second, the proposed amendment to appendix D to part 40 would require DCMs and SEFs to indicate as part of filing the submission whether a new product to be listed meets the definition of a referenced contract, thereby alerting Commission staff when contracts that may need to be added to the Staff Workbook are being listed and enable the Commission to process and review the submission more efficiently.

ii. Costs

The Commission expects that there will be negligible, if any, costs incurred by registered entities with respect to the amendments proposed to modernize appendix D as registered entities are already submitting the covered rules and products using the portal. With regards to the amendment proposing that DCMs and SEFs indicate whether a new product to be listed meets the definition of referenced contract, the Commission notes that DCMs and SEFs will incur costs to make these indications. These costs, however, will be negligible because registered entities are already making the analytical determinations as to whether contracts are referenced contracts to meet their obligations under §§ 40.1(j)(1)(vii) and (j)(2)(vii), 40.2(a)(3)(ii), 40.3(a)(3) and part 150 of the Commission's regulations.

h. Section 15(a) Factors

In addition to the discussion above, the Commission has evaluated the costs and benefits of the proposed amendments to 17 CFR part 40 in light of the following five broad areas of market and public concern identified in section 15(a) of the CEA: protection of market participants and the public; efficiency, competitiveness, and financial integrity of futures markets; price discovery; sound risk management practices; and other public interest considerations.

Protection of market participants and the public: The Commission believes that the proposed changes to §§ 40.2, 40.3, 40.5 and 40.6, regarding the requirement for complete explanations and analysis for product and rule submissions will help protect market participants and the public by encouraging registered entities to submit comprehensive and informative filings for product and rule changes thereby providing the Commission with sufficient information to evaluate whether the new products or rules comply with the CEA and Commission rules. The Commission believes that the proposed changes to §§ 40.3 and 40.6, regarding restarting review periods under specific circumstances, provide the Commission with the necessary time to evaluate changes and consider risks, and ultimately protect the interests of market participants and the public.

Efficiency, competitiveness, and financial integrity of futures markets: The proposed improvements to the regulations providing for "complete" products and rules submissions sets forth in more detail the Commission's original intention regarding the level of

detail thereby better ensuring that the Commission can provide adequate oversight with minimal disruption to market efficiency. The Commission has not identified any effect of the proposed regulations on innovation and competition.

Price discovery: The Commission has not identified any effect of the proposed regulations on price discovery.

Sound risk management practices: The Commission has not identified any other effect of the proposed regulations on sound risk management practices.

Other public interest considerations: The Commission has not identified any effect of the proposed regulations on other public interest considerations.

List of Subjects in Parts 37, 38, and 40

Commodity futures, Reporting and recordkeeping requirements.

For the reasons stated in the preamble, the Commodity Futures Trading Commission proposes to amend 17 CFR chapter I as follows:

PART 37—SWAP EXECUTION FACILITIES

■ 1. The authority citation for part 37 continues to read as follows:

Authority: 7 U.S.C. 1a, 2, 5, 6, 6c, 7, 7a–2, 7b–3, and 12a, as amended by Titles VII and VIII of the Dodd-Frank Wall Street Reform and Consumer Protection Act, Pub. L. 111–203, 124 Stat. 1376.

Appendix B to Part 37 [Amended]

■ 2. Amend appendix B to part 37, under the heading Core Principle 8 of Section 5h of the Act—Emergency Authority, in the first sentence of paragraph (a)(1), by removing the cross-reference "\$ 40.1(h)" and adding in its place "\$ 40.1".

PART 38—DESIGNATED CONTRACT MARKETS

■ 3. The authority citation for part 38 continues to read as follows:

Authority: 7 U.S.C. 1a, 2, 6, 6a, 6c, 6d, 6e, 6f, 6g, 6i, 6j, 6k, 6l, 6m, 6n, 7, 7a–2, 7b, 7b–1, 7b–3, 8, 9, 15, and 21, as amended by the Dodd-Frank Wall Street Reform and Consumer Protection Act, Pub. L. 111–203, 124 Stat. 1376.

Appendix B to Part 38 [Amended]

■ 4. Amend appendix B to part 38, under the heading Core Principle 6 of section 5(d) of the Act: EMERGENCY AUTHORITY, in the third sentence of paragraph (a), by removing the cross-reference "\$ 40.1(h)" and adding in its place "\$ 40.1".

⁸⁹ 17 CFR part 150. The Commission's latest amendments to part 150 became effective on March 15, 2021. 86 FR 3236 (Jan. 14, 2021).

PART 40—PROVISIONS COMMON TO REGISTERED ENTITIES

■ 5. The authority citation for part 40 is revised to read as follows:

Authority: 7 U.S.C. 1a, 2, 5, 6, 7, 8 and 12, as amended by Titles VII and VIII of the Dodd-Frank Wall Street Reform and Consumer Protection Act, Pub. L. 111–203, 124 Stat. 1376 (2010).

■ 6. Revise § 40.1 to read as follows:

§ 40.1 Definitions.

As used in this part:

Business day means the intraday period of time starting at 8:15 a.m. and ending at 4:45 p.m. Eastern Standard Time or Eastern Daylight Savings Time, whichever is currently in effect in Washington, DC, on all days except Saturdays, Sundays, and Federal holidays in Washington, DC.

Dormant derivatives clearing organization means any derivatives clearing organization registered pursuant to section 5b of the Act that has not accepted for clearing any agreement, contract or transaction that is required or permitted to be cleared by a derivatives clearing organization under sections 5b(a) and 5b(b) of the Act, respectively, for a period of 365 days; *provided, however*, no derivatives clearing organization shall be considered dormant if its initial and original Commission order of registration was issued within the preceding 1,095 days.

Dormant designated contract market means any designated contract market on which no trading has occurred for a period of 365 days; *provided, however*, no designated contract market shall be considered dormant if its initial and original Commission order of designation was issued within the preceding 1,095 days.

Dormant swap data repository means any registered swap data repository on which no data has resided for a period of 365 days.

Dormant swap execution facility means any swap execution facility on which no trading has occurred for a period of 365 days; *provided, however*, no swap execution facility shall be considered dormant if its initial and original Commission order of registration was issued within the preceding 1,095 days.

Emergency means any occurrence or circumstance that, in the opinion of the governing board of a registered entity, or a person or persons duly authorized to issue such an opinion on behalf of the governing board of a registered entity under circumstances and pursuant to procedures that are specified by rule, requires immediate action and threatens

or may threaten such things as the fair and orderly trading in, or the liquidation of or delivery pursuant to, any agreements, contracts, swaps or transactions or the timely collection and payment of funds in connection with clearing and settlement by a derivatives clearing organization, including:

(1) Any manipulative or attempted manipulative activity;

(2) Any actual, attempted, or threatened corner, squeeze, congestion, or undue concentration of positions;

(3) Any circumstances which may materially affect the performance of agreements, contracts, swaps or transactions, including failure of the payment system or the bankruptcy or insolvency of any participant;

(4) Any action taken by any governmental body, or any other registered entity, board of trade, market or facility which may have a direct impact on trading or clearing and settlement; and

(5) Any other circumstance which may have a severe, adverse effect upon the functioning of a registered entity.

Rule means any constitutional provision, article of incorporation, bylaw, rule, regulation, resolution, interpretation, stated policy, advisory, terms and conditions, trading protocol, margin methodology, agreement or instrument corresponding thereto, including those that authorize a response or establish standards for responding to a specific emergency, and any amendment or addition thereto or repeal thereof, made or issued by a registered entity or by the governing board thereof or any committee thereof, in whatever form adopted.

Terms and conditions means any definition of the trading unit or the specific commodity underlying a contract for the future delivery of a commodity or commodity option contract, description of the payments to be exchanged under a swap, specification of cash settlement or delivery standards and procedures, and establishment of buyers' and sellers' rights and obligations under the swap or contract. Terms and conditions include provisions relating to the following:

(1) For a contract for the purchase or sale of a commodity for future delivery or an option on such a contract or an option on a commodity (other than a swap):

(i) Quality and other standards that define the commodity or instrument underlying the contract;

(ii) Quantity standards or other provisions related to contract size;

(iii) Any applicable premiums or discounts for delivery of nonpar products;

(iv) Trading hours, trading months and the listing of contracts;

(v) The pricing basis, minimum price fluctuations, and maximum price fluctuations;

(vi) Any price limits, no cancellation ranges, trading halts, or circuit breaker provisions, and procedures for the establishment of daily settlement prices;

(vii) Speculative position limits, position accountability standards, and position reporting requirements, including an indication as to whether the contract meets the definition of a referenced contract as defined in § 150.1 of this chapter, and if so, the name of either the core referenced futures contract or other referenced contract upon which the new referenced contract submitted under this part is based.

(viii) Delivery points and locational price differentials;

(ix) Delivery standards and procedures, including fees related to delivery or the delivery process; alternatives to delivery and applicable penalties or sanctions for failure to perform;

(x) If cash settled; the definition, composition, calculation and revision of the cash settlement price or index;

(xi) [Reserved];

(xii) Option exercise price, if it is constant, and method for calculating the exercise price, if it is variable;

(xiii) Threshold prices for an option contract, the existence of which is contingent upon those prices; and

(xiv) Any restrictions or requirements for exercising an option; and

(2) For a swap:

(i) Identification of the major group, category, type or class in which the swap falls (such as an interest rate, commodity, credit or equity swap) and of any further sub-group, category, type or class that further describes the swap;

(ii) Notional amounts, quantity standards, or other unit size characteristics;

(iii) Any applicable premiums or discounts for delivery of nonpar products;

(iv) Trading hours and the listing of swaps;

(v) Pricing basis for establishing the payment obligations under, and mark-to-market value of, the swap including, as applicable, the accrual start dates, termination or maturity dates, and, for each leg of the swap, the initial cash flow components, spreads, and points, and the relevant indexes, prices, rates, coupons, or other price reference measures;

(vi) Any price limits, trading halts, or circuit breaker provisions, and procedures for the establishment of daily settlement prices;

(vii) Speculative position limits, position accountability standards, and position reporting requirements, including an indication as to whether the contract meets the definition of economically equivalent swap as defined in § 150.1 of this chapter, and, if so, the name of either the core referenced futures contract or referenced contract, as applicable, to which the swap submitted under this part is economically equivalent.

(viii) Payment and reset frequency, day count conventions, business calendars, and accrual features;

(ix) If physical delivery applies, delivery standards and procedures, including fees related to delivery or the delivery process, alternatives to delivery and applicable penalties or sanctions for failure to perform;

(x) If cash settled, the definition, composition, calculation and revision of the cash settlement price, and the settlement currency;

(xi) [Reserved];

(xii) Option exercise price, if it is constant, and method for calculating the exercise price, if it is variable;

(xiii) Threshold prices for an option, the existence of which is contingent upon those prices;

(xiv) Any restrictions or requirements for exercising an option; and

(xv) Life cycle events.

■ 7. Amend § 40.2 by revising the introductory text of paragraph (a) and paragraphs (a)(1), (a)(3)(i), (ii), (v), and (vi), and (d) to read as follows:

§ 40.2 Listing products for trading by certification.

(a) *Submission requirements.* A designated contract market or a swap execution facility must comply with the submission requirements of this section prior to listing a product for trading that has not been approved under § 40.3. A submission shall comply with the following conditions:

(1) The designated contract market or the swap execution facility has filed its submission electronically in a format and manner specified by the Commission;

* * *

(3) * * *

(i) The information required by appendix D of this part;

(ii) A copy of the rules that set forth the contract's terms and conditions;

* * *

(v) A concise explanation and analysis that is complete with respect to the product's terms and conditions, the underlying commodity, and the product's compliance with applicable provisions of the Act, including core principles, and the Commission's

regulations thereunder. This explanation and analysis shall either be accompanied by the documentation relied upon to establish the basis for compliance with applicable law, or incorporate information contained in such documentation, with appropriate citations to data sources;

(vi) A certification that the registered entity posted a notice of a pending product certification with the Commission and a copy of the submission, concurrent with the filing of a submission with the Commission, on the registered entity's website. Information that the registered entity seeks to keep confidential may be redacted from the documents published on the registered entity's website but must be republished consistent with any determination made pursuant to § 40.8(c)(4); and

* * *

(d) *Class certification of swaps.* (1) A designated contract market or swap execution facility may list or facilitate trading in any swap or number of swaps based upon an "excluded commodity," as defined in section 1a(19)(i) of the Act, not including any security, security index, and currency other than the United States Dollar and a "major foreign currency," as defined in § 15.03(a) of this chapter, or an "excluded commodity," as defined in section 1a(19)(ii)–(iv) of the Act, provided the designated contract market or swap execution facility certifies, under § 40.2(a)(1) and (2) and (3)(i), (iv), and (vi), the following:

(i) Each particular swap within the certified class of swaps is based upon an excluded commodity specified in § 40.2(d)(1);

(ii) Each particular swap within the certified class of swaps is based upon an excluded commodity with an identical pricing source, formula, procedure, and methodology for calculating reference prices and payment obligations;

(iii) The pricing source, formula, procedure, and methodology for calculating reference prices and payment obligations in each particular swap within the certified class of swaps is identical to a pricing source, formula, procedure, and methodology for calculating reference prices and payment obligations in a product previously submitted to the Commission and certified or approved pursuant to § 40.2 or § 40.3; and

(iv) Each particular swap within the certified class of swaps is based upon an excluded commodity involving an identical currency or identical currencies.

(2) The Commission may in its discretion require a registered entity to

withdraw its certification under § 40.2(d)(1) and to submit each individual swap or certain individual swaps within the submission for Commission review pursuant to § 40.2 or § 40.3.

■ 8. Amend § 40.3 as follows:

■ a. Revise the introductory text of paragraph (a) and paragraphs (a)(1) and (2), (4), (9) and (10), (c), and (d);

■ b. Remove paragraph (e); and

■ c. Redesignate paragraph (f) as paragraph (e) and revise newly redesignated paragraph (e).

The revisions read as follows:

§ 40.3 Voluntary submission of new products for Commission review and approval.

(a) *Request for approval.* Pursuant to section 5c(c) of the Act, a designated contract market, a swap execution facility, or a derivatives clearing organization may request that the Commission approve a new product prior to listing the product for trading or accepting the product for clearing, or if a product was initially submitted under § 40.2 or § 39.5 of this chapter, subsequent to listing the product for trading or accepting the product for clearing. A submission requesting approval shall:

(1) Be filed electronically in a format and manner specified by the Commission;

(2) Include the information required by appendix D of this part;

* * *

(4) Include an explanation and analysis that is complete with respect to the product's terms and conditions, the underlying commodity, and the product's compliance with applicable provisions of the Act, including core principles, and the Commission's regulations thereunder. This explanation and analysis shall either be accompanied by the documentation relied upon to establish the basis for compliance with the applicable law, or incorporate information contained in such documentation, with appropriate citations to data sources;

* * *

(9) Certify that the registered entity posted a notice of its request for Commission approval of the new product and a copy of the submission, concurrent with the filing of a submission with the Commission, on the registered entity's website.

Information the registered entity seeks to keep confidential may be redacted from the documents published on the registered entity's website but must be republished consistent with any determination made pursuant to § 40.8(c)(4); and

(10) Include, if requested by Commission staff, additional evidence, information or data demonstrating that the contract meets, initially or on a continuing basis, the requirements of the Act, or other requirement for designation or registration under the Act, or the Commission's regulations or policies thereunder. The registered entity shall submit the requested information by the time specified by Commission staff, or at the conclusion of any extended period agreed to by Commission staff after timely receipt of a written request from the registered entity.

* * * * *

(c) *Commission review.* (1) All products submitted for Commission approval pursuant to, and in compliance with the submission requirements of, paragraph (a) of this section shall be subject to review by the Commission for a period of 45 days after receipt by the Commission.

(2) The Commission may extend the initial 45-day review period for up to an additional 45 days if the product raises novel or complex issues that require additional time to analyze, the submission is incomplete or the requestor does not respond completely to Commission questions in a timely manner, in which case the Commission shall notify the submitting registered entity within the initial 45-day review period and shall briefly describe the nature of the specific issues for which additional time for review shall be required.

(3) At any time during its review of a proposed product under this section, the Commission may extend the review period for any period of time to which the registered entity agrees in writing.

(4) Any amendment or supplementation made by the registered entity to the submission will be treated as the filing of a new submission under this section and be subject to the initial 45-day review period in accordance with paragraph (c)(1) of this section, unless the amendment or supplementation is made for correction of typographical errors, renumbering or other non-substantive revisions. Any substantive amendment or supplementation by the submitting entity, including an amendment or supplementation requested by the Commission, will be treated as a new submission under this section.

(5) If the review period described in paragraph (c)(1) of this section would end on a day that is not a business day, such review period shall instead be extended to end on the next business day.

(d) *Commission determination—(1) Approval.* Any product submitted for Commission approval in compliance with paragraph (a) of this section shall be deemed approved by the Commission under section 5c(c) of the Act at the conclusion of the applicable review period under paragraph (c) of this section, unless the Commission issues a notice of non-approval to the registered entity under paragraph (d)(2) of this section within the applicable review period.

(2) *Notice of non-approval.* Any time during its review under this section, the Commission may notify the registered entity that it will not, or is unable to, approve the new product. This notification will briefly specify the nature of the issues raised and the specific provision of the Act or the Commission's regulations, including the form or content requirements of this section, with which the new product is inconsistent or appears to be inconsistent with the Act or the Commission's regulations.

(e) *Effect of non-approval.* (1) Notification to a registered entity under paragraph (d)(2) of this section of the Commission's determination not to approve a product does not prevent the entity from subsequently submitting a revised version of the product for Commission approval, or from submitting the product as initially proposed, in a supplemented submission; the revised or supplemented submission will be reviewed without prejudice.

(2) Notification to a registered entity under paragraph (d)(2) of this section of the Commission's determination not to approve a product shall be presumptive evidence that the entity may not truthfully certify under § 40.2 that the same, or substantially the same, product complies with the Act and the Commission's regulations thereunder.

■ 9. Revise § 40.4 to read as follows:

§ 40.4 Amendments to terms or conditions of enumerated agricultural products.

(a) Notwithstanding the provisions of this part, a designated contract market must submit for Commission approval under the procedures of § 40.5, prior to its implementation, any rule that, for a delivery month having open interest, would materially change a product's term or condition, as defined in § 40.1, of a contract for future delivery in an agricultural commodity enumerated in section 1a(9) of the Act, or of an option on such a contract or commodity.

(b) The following rules or rule amendments are not material and are not required by this section to be

submitted for Commission approval under the procedures of § 40.5:

(1) Rules or rule amendments that are enumerated in § 40.6(d)(2) may be implemented without prior approval or certification, provided that they are implemented pursuant to the notification procedures of § 40.6(d);

(2) Rules or rule amendments that are enumerated in § 40.6(e)(2) may be implemented without prior approval or certification or notification as permitted pursuant to § 40.6(e);

(3) Rules or rule amendments governing trading hours may be implemented without prior approval, provided that they are implemented pursuant to the procedures of § 40.6(a);

(4) Rules or rule amendments that are required to comply with a binding order of a court of competent jurisdiction, or a rule, regulation or order of the Commission or of another Federal regulatory authority, may be implemented without prior approval, provided that they are implemented pursuant to the procedures of § 40.6(a); or

(5) Any rule or rule amendment:

(i) The text of which has been submitted pursuant to the procedures of §§ 40.4(b)(5) and 40.6(a) at least ten business days prior to its implementation and that has been labeled "Non-Material Agricultural Rule Change;"

(ii) For which the designated contract market has provided an explanation as to why it considers the rule "non-material," and any other information that may be beneficial to the Commission in analyzing the merits of the entity's claim of non-materiality including, if applicable, a copy of a previously approved rule or rule amendment that is, in substance, the same as the non-material rule or rule amendment; and

(iii) With respect to which the Commission has not notified the contract market during the review period that the rule appears to require or does require prior approval under this section.

■ 10. Amend § 40.5 as follows:

■ a. Revise the introductory text of paragraph (a) and paragraphs (a)(1) and (2), (5) and (6), and (9), the paragraph heading of paragraph (c), and paragraph (c)(1);

■ b. Remove paragraph (c)(2);

■ c. Redesignate paragraph (d)(1) as paragraph (c)(2) and revise newly redesignated paragraph (c)(2);

■ d. Redesignate paragraph (d)(2) as paragraph (c)(3) and revise newly redesignated paragraph (c)(3);

■ e. Add paragraphs (c)(4) through (6);

■ f. Revise the paragraph heading of paragraph (d), remove paragraph (d) introductory text, and add a new paragraph (d)(1);

■ g. Redesignate paragraph (g) as paragraph (d)(2) and revise newly redesignated paragraph (d)(2);

■ h. Redesignate paragraph (e) as paragraph (d)(3) and revise newly redesignated paragraph (d)(3); and

■ i. Redesignate paragraph (f) as paragraph (e) and revise newly redesignated paragraph (e).

The revisions and additions read as follows:

§ 40.5 Voluntary submission of rules for Commission review and approval.

(a) *Request for approval of rules.* Pursuant to section 5c(c) of the Act, a registered entity may request that the Commission approve a new rule or rule amendment prior to implementation of the rule, or if the rule or rule amendment was initially submitted under § 40.2 or § 40.6, subsequent to implementation of the rule. A request for approval shall:

(1) Be filed electronically in a format and manner specified by the Commission;

(2) Include the information required by appendix D of this part;

* * * * *

(5) Provide an explanation and analysis that is complete with respect to the operation, purpose, and effect of the proposed rule or rule amendment and its compliance with applicable provisions of the Act, including core principles, and the Commission's regulations thereunder, including, as applicable, a description of the anticipated benefits to market participants or others, any potential anticompetitive effects on market participants or others, and how the rule fits into the registered entity's framework of self-regulation;

(6) Certify that the registered entity posted a notice of its request for Commission approval of the new rule or rule amendment and a copy of the submission, concurrent with the filing of a submission with the Commission, on the registered entity's website. Information the registered entity seeks to keep confidential may be redacted from the documents published on the registered entity's website but must be republished consistent with any determination made pursuant to § 40.8(c)(4);

* * * * *

(9) Identify any Commission regulation that the Commission may need to amend, or sections of the Act or the Commission's regulations that the Commission may need to interpret, in

order to approve the new rule or rule amendment. To the extent that such an amendment or interpretation is necessary to accommodate a new rule or rule amendment, the submission should include a reasoned analysis supporting the amendment to the Commission's regulation or the interpretation; and

* * * * *

(c) *Commission review.* (1) Any rule submitted for Commission approval pursuant to, and in compliance with the submission requirements of, paragraph (a) of this section shall be subject to review by the Commission for a period of 45 days after receipt by the Commission.

(2) The Commission may extend the initial 45-day review period for up to an additional 45 days if the proposed rule raises novel or complex issues that require additional time for review or is of major economic significance, the submission is incomplete or the requestor does not respond completely to Commission questions in a timely manner, in which case the Commission shall notify the submitting registered entity within the initial 45-day review period and shall briefly describe the nature of the specific issues for which additional time for review shall be required.

(3) At any time during its review of a proposed rule under this section, the Commission may extend the review period for any period of time to which the registered entity agrees in writing.

(4) Any amendment or supplementation made by the registered entity to the submission will be treated as the filing of a new submission under this section and be subject to the initial 45-day review period in accordance with paragraph (c)(1) of this section, unless the amendment or supplementation is requested by the Commission or is made for correction of typographical errors, renumbering or other non-substantive revisions.

(5) If a rule or rule amendment that is submitted for Commission approval under paragraph (a) of this section is also submitted and labeled as a "Non-Material Agricultural Rule Change" in accordance with § 40.4(b)(5), the Commission shall commence the 45-day review period in paragraph (c)(1) of this section ten business days after receiving the submission.

(6) If the review period described in paragraph (c)(1) of this section would end on a day that is not a business day, such review period shall instead be extended to end on the next business day.

(d) *Commission determination—(1) Approval.* Any rule submitted for

Commission approval in compliance with paragraph (a) of this section shall be deemed approved by the Commission under section 5c(c) of the Act at the conclusion of the applicable review period under paragraph (c) of this section, unless the Commission issues a notice of non-approval to the registered entity under paragraph (d)(3) of this section within the applicable review period.

(2) *Expedited approval.*

Notwithstanding the provisions of paragraph (c) of this section, a proposed rule or rule amendment, including changes to terms and conditions of a product that are consistent with the Act and Commission regulations, may be approved by the Commission at such time and under such conditions as the Commission shall specify in a written notification.

(3) *Notice of non-approval.* Any time during its review under this section, the Commission may notify the registered entity that it will not, or is unable to, approve the new rule or rule amendment. This notification will briefly specify the nature of the issues raised and the specific provision of the Act or the Commission's regulations, including the form or content requirements of this section, with which the new rule or rule amendment is inconsistent or appears to be inconsistent with the Act or the Commission's regulations.

(e) *Effect of non-approval.* (1) Notification to a registered entity under paragraph (d)(3) of this section of the Commission's determination not to approve a new rule or rule amendment does not prevent the registered entity from subsequently submitting a revised version of the proposed rule or rule amendment for Commission review and approval, or from submitting the new rule or rule amendment as initially proposed, in a supplemented submission; the revised or supplemented submission will be reviewed without prejudice.

(2) Notification to a registered entity under paragraph (d)(3) of this section of the Commission's determination not to approve a proposed rule or rule amendment of a registered entity shall be presumptive evidence that the entity may not truthfully certify under § 40.6 that the same, or substantially the same, proposed rule or rule amendment complies with the Act and the Commission's regulations thereunder.

■ 11. Amend § 40.6 as follows:

■ a. Revise the introductory text of paragraph (a) and paragraphs (a)(1) and (2) and (5) through (8);

■ b. Add paragraph (a)(9);

- c. Revise paragraphs (b) and (c)(2) and (3);
- d. Add paragraph (c)(5);
- e. Revise paragraphs (d)(1) and (d)(2)(iii), (iv), and (ix);
- f. Add paragraphs (d)(2)(xi) through (xiii); and
- g. Redesignate paragraph (d)(3) as paragraph (e) and revise newly redesignated paragraph (e).

The revisions and additions read as follows:

§ 40.6 Self-certification of rules.

(a) *Submission requirements.* A registered entity shall comply with the certification and submission requirements of this section prior to implementing any rule that has not obtained Commission approval under § 40.5, or that is submitted under § 40.10, except as otherwise provided by § 40.10(a). A submission shall comply with the following conditions:

(1) The registered entity has filed its submission electronically in a format and manner specified by the Commission.

(2) The registered entity has provided a certification that the registered entity posted a notice of pending certification with the Commission and a copy of the submission, concurrent with the filing of a submission with the Commission, on the registered entity's website. Information that the registered entity seeks to keep confidential may be redacted from the documents published on the registered entity's website but it must be republished consistent with any determination made pursuant to § 40.8(c)(4).

* * * * *

(5) The rule or rule amendment is not a rule or rule amendment of a designated contract market that materially changes a term or condition of a contract for future delivery of an agricultural commodity enumerated in section 1a(9) of the Act or an option on such a contract or commodity in a delivery month having open interest.

(6)(i) Rules or rule amendments implemented under procedures of the governing board to respond to an emergency as defined in § 40.1, shall, if practicable, be filed with the Commission prior to the implementation or, if not practicable, be filed with the Commission at the earliest possible time after implementation, but in no event more than twenty-four hours after implementation. Such rules shall be subject to the review and stay provisions of paragraphs (b) and (c) of this section.

(ii) New rules or rule amendments that establish standards for responding to an emergency must be submitted

pursuant to § 40.6(a) or may be submitted pursuant to § 40.5.

(7) The rule submission shall include:

(i) The information required by appendix D of this part ("Emergency Rule Certification" should be noted in the Description section in the case of a rule or rule amendment that responds to an emergency);

(ii) The text of the rule (in the case of a rule amendment, deletions and additions must be indicated);

(iii) The date of intended implementation;

(iv) A certification by the registered entity that the rule complies with the Act and the Commission's regulations thereunder;

(v) A concise explanation and analysis that is complete with respect to the operation, purpose, and effect of the proposed rule or rule amendment and its compliance with applicable provisions of the Act, including core principles, and the Commission's regulations thereunder;

(vi) A brief explanation of any substantive opposing views expressed to the registered entity by governing board or committee members, members of the entity or market participants, that were not incorporated into the rule, or a statement that no such opposing views were expressed; and

(vii) As appropriate, a request for confidential treatment pursuant to the procedures provided in § 40.8;

(8) The registered entity shall provide, if requested by Commission staff, additional evidence, information or data that may be beneficial to the Commission in conducting a due diligence assessment of the filing and the registered entity's compliance with any of the requirements of the Act or the Commission's regulations or policies thereunder; and

(9) Notwithstanding the 10 business day filing requirement of paragraphs (a)(3) and (b)(1) of this section, a registered entity may file a submission and certification of a new rule or a rule amendment that delists, or withdraws the certification of, a product that has no open interest and may make the delisting or withdrawal of the product with no open interest effective immediately upon filing the submission, provided that the submission is made in compliance with paragraphs (a)(1) and (2) and (7) of this section.

(b) *Review by the Commission.* (1) The Commission shall have 10 business days to review the new rule or rule amendment before the new rule or rule amendment is deemed certified and can be made effective, unless the Commission notifies the registered entity during the 10-business day

review period that it intends to issue a stay of the certification under paragraph (c) of this section.

(2) Any amendment or supplementation made by the registered entity to the submission will be treated as the filing of a new submission under this section and be subject to the initial 10-business day review period in accordance with paragraph (b)(1) of this section, unless the amendment or supplementation is made for correction of typographical errors, renumbering or other non-substantive revisions.

(c) * * *

(2) *Public comment.* The Commission shall provide a 30-day comment period within the 90-day period in which the stay is in effect as described in paragraph (c)(1) of this section. The Commission shall publish a notice of the 30-day comment period on the Commission website. Comments from the public shall be submitted as specified in that notice.

(3) *Expiration of a stay of certification of new rule or rule amendment.* A new rule or rule amendment subject to a stay pursuant to this paragraph shall become effective and can be implemented, pursuant to the certification, at the expiration of the 90-day review period described in paragraph (c)(1) of this section unless the Commission withdraws the stay prior to that time, or the Commission notifies the registered entity during the 90-day time period that it objects to the certification on the grounds that the proposed rule or rule amendment is inconsistent with the Act or the Commission's regulations.

* * * * *

(5) *Effect of objection.* (i) Notification to a registered entity under paragraph (c) of this section of the Commission's objection to a certification by a registered entity on the grounds that the proposed rule or rule amendment is inconsistent with the Act or the Commission's regulations does not prevent the registered entity from subsequently submitting a revised version of the proposed rule or rule amendment for certification or Commission review and approval, or from submitting the new rule or rule amendment as initially proposed, in a supplemented submission; the revised or supplemented submission will be reviewed without prejudice.

(ii) Notification to a registered entity under paragraph (c) of this section of the Commission's objection to a certification by a registered entity shall be presumptive evidence that the entity may not truthfully certify under this section that the same, or substantially the same, proposed rule or rule

amendment complies with the Act and the Commission's regulations thereunder.

(d) * * *

(1) The registered entity provides to the Commission at least weekly a summary notice of all rule amendments made effective pursuant to this paragraph (d) during the preceding week. Such notice must be labeled "Weekly Notification of Rule Amendments" and need not be filed for weeks during which no such actions have been taken. One copy of each such submission shall be furnished electronically in a format and manner specified by the Commission; and

(2) * * *

(iii) *Index products*. Routine changes in the composition, computation, or method of selection of component entities of an index (other than routine changes to securities indexes to the extent that such changes are not described in paragraph (e)(2)(vi) of this section) referenced and defined in the product's terms, that do not affect the pricing basis of the index, which are made by an independent third party whose business relates to the collection or dissemination of price information and which was not formed solely for the purpose of compiling an index for use in connection with a futures or option product;

(iv) *Option contract terms*. Changes to option contract rules, which may qualify for implementation without notice pursuant to paragraph (e)(2)(vii) of this section, relating to the strike price listing procedures, strike price intervals, and the listing of strike prices on a discretionary basis;

* * * * *

(ix) *Trading months*. The initial listing of trading months, or an amendment to existing trading months, which may qualify for implementation without notice pursuant to paragraph (e)(2)(viii) of this section, within the currently established cycle of trading months;

* * * * *

(xi) *Contact information*. Updates of email addresses or other contact information that market participants use to submit block trades;

(xii) *Changes to no cancellation ranges*. For a contract for the purchase or sale of a commodity for future delivery or an option on such a contract or an option on a commodity (other than a swap), changes to no cancellation ranges (which are the price ranges within which a trade will not be cancelled); or

(xiii) *Option premiums or margins*. For a contract for the purchase or sale

of a commodity for future delivery or an option on such a contract or an option on a commodity (other than a swap), payment or collection of commodity options premiums or margins; or for a swap, payment or collection of option premiums or margins.

(e) *Notification of rule amendments not required*. Notwithstanding the rule certification requirements of section 5c(c)(1) of the Act and paragraph (a) of this section, a registered entity may place the following rules or rule amendments into effect without certification or notice to the Commission if the following conditions are met:

(1) The registered entity maintains documentation regarding all changes to rules; and

(2) The rule governs:

(i) *Transfer of membership or ownership*. Procedures and forms for the purchase, sale or transfer of membership or ownership, but not including qualifications for membership or ownership, any right or obligation of membership or ownership or dues or assessments;

(ii) *Administrative procedures*. The organization and administrative procedures of a registered entity governing bodies such as a Board of Directors, Officers and Committees, but not voting requirements, Board of Directors or Committee composition requirements or procedures, decision making procedures, use or disclosure of material non-public information gained through the performance of official duties, or requirements relating to conflicts of interest;

(iii) *Administration*. The routine, daily administration, direction and control of employees, requirements relating to gratuity and similar funds, but not guaranty, reserves, or similar funds; declaration of holidays, and changes to facilities housing the market, trading floor or trading area;

(iv) *Standards of decorum*. Standards of decorum or attire or similar provisions relating to admission to the floor, badges, or visitors, but not the establishment of penalties for violations of such rules; and

(v) *Fees*. Fees or fee changes, other than fees or fee changes associated with market making or trading incentive programs, that:

(A) Are less than \$1.00 per contract; or

(B) Relate to matters such as dues, badges, telecommunication services, booth space, real time quotations, historical information, publications, software licenses or other matters that are administrative in nature.

(vi) *Securities indexes*. Routine changes to the composition, computation or method of security selection of an index that is referenced and defined in the product's rules, and which is made by an independent third party.

(vii) *Option contract terms*. For registered entities that are in compliance with the daily reporting requirements of § 16.01 of this chapter, changes to option contract rules relating to the strike price listing procedures, strike price intervals, and the listing of strike prices on a discretionary basis.

(viii) *Trading months*. For registered entities that are in compliance with the daily reporting requirements of § 16.01 of this chapter, the initial listing of trading months which are within the currently established cycle of trading months.

■ 12. Amend § 40.7 by adding paragraphs (a)(1)(iv) and (v), revising paragraphs (a)(5) and (b)(3), and adding paragraph (e) to read as follows:

§ 40.7 Delegations.

(a) * * *

(1) * * *

(iv) To extend, pursuant to § 40.3(c)(3), the applicable review period set forth in § 40.3(c) for the period agreed to in writing by the registered entity;

(v) To extend, pursuant to § 40.5(c)(3), the applicable review period set forth in § 40.5(c) for the period agreed to in writing by the registered entity.

* * * * *

(5) The Commission hereby delegates to the Director of the Division of Market Oversight, to be exercised by the Director or by such employees of the Commission that the Director may designate from time to time, with the concurrence of the General Counsel or the General Counsel's delegate, the authority to determine whether a rule or rule amendment submitted by a designated contract market is material under § 40.4(b)(5), and to notify the designated contract market of such determination.

(b) * * *

(3) Establish or amend or relate to speculative limits or position accountability provisions that are in compliance with the requirements of the Act and the Commission's regulations;

* * * * *

(e) The Commission hereby delegates, until it orders otherwise, to the Director of the Division of Clearing and Risk and, separately, to the Director of the Division of Market Oversight, to be exercised by either Director, as appropriate, or by such employees of

the Commission that either Director may designate from time to time, the authority to specify the format and manner to be used by a registered entity when filing a submission pursuant to this part.

■ 13. Amend § 40.10 by revising the introductory text of paragraph (a), paragraph (b), the introductory text of paragraph (d), and paragraph (h)(3), and adding paragraph (i) to read as follows:

§ 40.10 Special certification procedures for submission of rules by systemically important derivatives clearing organizations.

(a) *Advance notice.* A systemically important derivatives clearing organization, as defined in § 39.2 of this chapter, shall provide notice to the Commission not less than 60 days in advance of any proposed change to its rules, procedures, or operations that could materially affect the nature or level of risks presented by the systemically important derivatives clearing organization. A notice submitted under this section shall be subject to the filing requirements of § 40.6(a)(1) and the website publication requirements of § 40.6(a)(2).

* * * * *

(b) *Changes requiring advance notice.* Changes to a systemically important derivatives clearing organization's rules, procedures, or operations that could materially affect the nature or level of risks presented by the systemically important derivatives clearing organization may include, but are not limited to: material changes to its default management plan or default rules or procedures required under § 39.16 or § 39.35 of this chapter, program of risk analysis and oversight required under § 39.18 of this chapter, or recovery and wind down plans required under § 39.39 of this chapter; the adoption of a new or materially revised margin methodology; the establishment of a cross-margining program or similar arrangement with another clearing organization; and material changes to its approach to the stress testing required under § 39.13(h)(3), or § 39.36(a) or (c) of this chapter. If a systemically important derivatives clearing organization determines that a proposed change could not materially affect the nature or level of risks it presents and therefore does not file an advance notice, the Commission may determine otherwise and require the systemically important derivatives clearing organization to withdraw the proposed change and provide notice pursuant to this section.

* * * * *

(d) *Notice of objection.* A systemically important derivatives clearing organization shall not implement a change to which the Commission has an objection on the grounds that the proposed change is not consistent with the Act or the Commission's regulations, or any applicable rules, orders, or standards prescribed under section 805(a) of the Dodd-Frank Act. The Commission will notify the systemically important derivatives clearing organization in writing of any objection regarding the proposed change within 60 days from the later of:

* * * * *

(h) * * *

(3) The Commission may require modification or rescission of the emergency change if it finds that the change is not consistent with the Act or the Commission's regulations, or any applicable rules, orders, or standards prescribed under section 805(a) of the Dodd-Frank Act.

(i) Where in §§ 39.3(g), 39.4(f), 39.13(i), and 39.15(b)(2) of this chapter a derivatives clearing organization is required to submit rules for approval pursuant to § 40.5, a systemically important derivatives clearing organization instead shall submit such rules pursuant to § 40.10 if the rules could materially affect the nature or level of risks presented by the systemically important derivatives clearing organization.

■ 14. Revise appendix D to part 40 to read as follows:

Appendix D to Part 40—Submission Instructions for Rules and Products

(a) Rule and product submissions shall be submitted electronically to the Commission by a registered entity in a format and manner specified by the Commission, and shall include all of the following information:

1. *Date*—The date of the filing.
2. *Organization*—The name of the organization filing the submission (e.g., CBOT).
3. *Type of Registered Entity*—An indication as to whether the rule or product is being submitted by a designated contract market (DCM), derivatives clearing organization (DCO), swap execution facility (SEF), or swap data repository (SDR).

4. *Type of Filing*—An indication as to whether the filing is a new rule, rule amendment or new product and the section of part 40 under which the filing is submitted. For a new product to be listed by a DCM or a SEF, an indication whether the new product meets the definition of referenced contract as such term is defined in § 150.1 of this chapter and is described in Appendix C to Part 150 of this chapter—Guidance Regarding the Definition of Referenced Contract.

5. *Rule Numbers*—For rule filings, the rule number(s) being adopted or modified in the case of rule amendment filings.

6. *Description*—For rule or rule amendment filings, a description of the new rule or rule amendment, including a discussion of its expected impact on the registered entity, market participants, and the overall market. The narrative should describe the substance of the submission with enough specificity to characterize all material aspects of the filing.

7. *Identifier Code (optional)*—A registered entity Identifier Code, if applicable. Such codes are commonly generated by registered entities to provide an identifier that is unique to each filing (e.g., NYMEX Submission 03–116).

(b) *Other Requirements*—A submission shall comply with all applicable filing requirements for proposed rules, rule amendments, or products. The entry of the information required by paragraph (a) of this appendix does not obviate the registered entity's responsibility to comply with applicable filing requirements (e.g., rules submitted for Commission approval under § 40.5 must be accompanied by an explanation of the purpose and effect of the proposed rule along with a description of any substantive opposing views).

(c) An indication of "confidential treatment requested" does not obviate the submitter's responsibility to comply with all applicable requirements for requesting confidential treatment in § 40.8 and, where appropriate, § 145.9 of this chapter, and will not substitute for notice or full compliance with such requirements.

■ 15. Add appendix E to part 40 to read as follows:

Appendix E to Part 40—Guidance on Compliance With the Materiality Assessment in § 40.4

(a) This appendix provides guidance on complying with the requirement in § 40.4(a) that a DCM must submit rule changes that would materially change a term or condition of a contract on an agricultural product enumerated in section 1a(9) of the CEA with open interest for Commission approval under the procedures of § 40.5. Section 40.4(a) applies strictly to rules that materially change a product's economic terms and conditions, and does not apply to other rules. Guidance is set forth in this appendix to assist a DCM in assessing whether a change to the terms and conditions is material pursuant to § 40.4(a) and in explaining why it considers a rule to be non-material when § 40.4(b)(5) is applicable. The guidance in this appendix can be used to demonstrate to the Commission compliance with the requirement in § 40.4(b)(5)(ii) that the DCM explain why it considers a rule to be non-material when applicable.

Materiality of a Change of a Term or Condition

(b) Any change that is enumerated by the Commission in § 40.4(b)(1) through (4) is not material for purposes of § 40.4(a) and may be submitted under the applicable § 40.6 provision that is specified in the applicable section of § 40.4(b). For any other rule that the DCM believes to be non-material, § 40.4(b)(5) sets forth a process for the DCM

to implement the change through self-certification pursuant to § 40.6(a).

(c) In order for a DCM to self-certify a change to a term or condition of a contract on an agricultural product enumerated in CEA section 1a(9) with open interest that the DCM believes to be non-material, § 40.4(b)(5) requires the DCM to make a non-materiality filing and explain why it considers the rule change to be “non-material.” To assist an exchange in assessing and explaining whether a change to the terms and conditions is non-material pursuant to § 40.4(b)(5), the following paragraphs set forth the criteria that the Commission generally considers as evidence that an enumerated agricultural product rule change is non-material under § 40.4(a) pursuant to § 40.4(b)(5). A DCM may address these criteria in its assessment and explanation to demonstrate compliance with § 40.4(b)(5).

(d) The Commission considers a change to the terms and conditions of a contract on an agricultural product enumerated in CEA section 1a(9) that has open interest as a non-material change if:

(1) The change should not affect a reasonable trader’s decision to enter into, or maintain, a position;

(2) The change should not affect a reasonable trader’s decision to make or take delivery on the contract or to exercise an option on the contract; and

(3) The change should not have an effect on the value of existing positions, including, but not limited to, a change affecting the price of the contract due to a change in the commodity quality characteristics of the existing contract, a change to the size of the existing contract, or a change to a cost of effecting delivery for the existing contract.

Issued in Washington, DC, on August 24, 2023, by the Commission.

Christopher Kirkpatrick,
Secretary of the Commission.

Note: The following appendices will not appear in the Code of Federal Regulations.

Appendices to Provisions Common to Registered Entities—Commission Voting Summary, Chairman’s Statement, and Commissioners’ Statements

Appendix 1—Commission Voting Summary

On this matter, Chairman Behnam and Commissioners Goldsmith Romero and Pham voted in the affirmative. Commissioners Johnson and Mersinger concurred. No Commissioner voted in the negative.

Appendix 2—Statement of Support of Chairman Rostin Behnam

The Commission votes today [at the Commission Open Meeting held on July 26, 2023] on a proposed rule to amend part 40 of the Commission regulations. Part 40 sets forth provisions common to registered entities, including designated contract markets (DCMs), derivatives clearing organizations (DCOs), swap execution facilities (SEFs), and swap data repositories (SDRs), and establishes requirements and

procedures for submitting rules and products, listing products for trading, and accepting products for clearing. Part 40 has not been amended comprehensively since 2011; the proposal would amend part 40 based on the Commission’s experience applying the part 40 regulations since 2011, and is intended to clarify and enhance the utility of part 40. I support this proposed rule.

At a high level, the proposed amendments would: (1) simplify the determination of whether a registered entity is deemed dormant; (2) edit language to reflect the development and use of the Commission’s online portal for filing of rule and product submissions; (3) reorganize and enhance the utility of rules regarding rule submissions and delegations of authority; and (4) provide meaningful guidance to SIDCOs regarding filing instructions for rules that could materially affect the nature or level of risks presented by the SIDCO.

Appendix 3—Statement of Support of Commissioner Kristin N. Johnson

I support the Commission’s issuance for notice and comment of proposed amendments to provisions common to registered entities as set forth in part 40 of the Commission’s regulations.¹ These regulations implement section 5c(c) of the Commodity Exchange Act (CEA or Act),² which prescribes the procedures for listing by registered entities of new products, as well as for approval of new rules or rule amendments, and also standards for review for and approval of the same by the Commission.³ These provisions apply to designated contract markets (DCMs), derivatives clearing organizations (DCOs), Swap Execution Facilities (SEFs), and swap data repositories (SDRs).

Part 40 has not been amended comprehensively for a decade. Over the course of that same decade, a number of other notable market events have transpired. For example, in 2008, an unidentified person—or group of people—using the pseudonym Satoshi Nakamoto published a white paper, innocently titled Bitcoin: A Peer-to-Peer Electronic Cash System, that outlined a decentralized peer-to-peer system for making and processing payments. In the decade since the white paper’s release, we have witnessed exponential growth in the market for digital assets, including cryptocurrencies, as well as the explosion of the digital asset ecosystem.

In addition to the developments regarding the creation and proliferation of digital assets, we have witnessed remarkable growth in the market for carbon credits. There is an indisputable and urgent need for markets to focus on sustainability. This Commission’s Second Voluntary Carbon Markets Convening held in this room last week highlighted this necessity. It also highlighted the need for

careful consideration of important questions such as the potential for fraud or the veracity of claims regarding additionality and concerns regarding greenwashing.

I am enthusiastic to support the Director of the Division of Enforcement Ian McGinley as we stand up the Environmental Fraud Task Force and continue the work of the Digital Asset Task Force. Yet, I strongly believe that effectively addressing fraud and market manipulation requires not only vigorous enforcement, but also thoughtful and proactive regulation. The amendments proposed today [at the Commission Open Meeting held on July 26, 2023] are a significant step in empowering the Commission to better understand new products and new rules in our markets in support of our regulatory mission.

Turning to the rulemaking under consideration today [at the Commission Open Meeting held on July 26, 2023], registered entities generally have two options when submitting products and rules for approval: they may self-certify that the product or rule complies with the CEA and Commission regulations, or they may submit the product or rule for Commission approval.⁴ The proposed amendments are intended to build on the Commission’s experience over the past decade in applying the part 40 regulations to product and rule submissions to clarify, simplify, and enhance the utility of the part 40 regulations for both registered entities and the Commission. Many of these revisions are technical in nature, and I appreciate the wisdom of the staff in both the Division of Clearing and Risk and the Division of Market Oversight in proposing them. I note that there are additional revisions that update the regulations to reflect technological developments in the ways that registered entities communicate with the Commission—*i.e.*, by using the internet.

Consequently, the revisions to the requirements under regulations §§ 40.2(a)(3)(v) and 40.3(a)(4) merit additional focus. These amendments require a registered entity to provide an explanation of the nature of the new product self-certified or submitted to the Commission for approval, “that is complete with respect to” the product’s terms and conditions as well as the product’s compliance with the applicable provisions of the Act, including core principles, and the Commission’s regulations.⁵ Staff have noted that, in their experience, registered entities have not always included sufficient information about the underlying commodity to a new product to allow the Commission to complete the analysis of compliance required under the CEA and the part 40 regulations. The proposed amendments not only call for additional information about the product’s underlying commodity, including characteristics such as the deliverable commodity’s grade, quality and deliverable supply, as applicable, but also specifically reference the guidance provided in appendix C to part 38⁶ as providing the requisite level

¹ 17 CFR part 40.

² 7 U.S.C. 7a–2(c).

³ Compare 17 CFR 40.2, 40.6 (providing for self-certification of products or rules), with 17 CFR 40.3, 40.5 (setting forth procedures for seeking Commission review and approval of products or rules).

⁴ *Id.*

⁵ 17 CFR 40.2(a)(3)(v), 40.3(a)(4).

⁶ 17 CFR part 38, appendix C.

of detail to comply with the newly proposed standard.

I support the proposed amendments to part 40 because I support making our rules clearer and easier to administer. I look forward to hearing from commenters as to whether these new requirements are fit for purpose and will enable the Commission to effectively address innovations regarding products, platforms, and technologies. I thank staff in the Division of Clearing and Risk and the Division of Market Oversight, including Rachel Kaplan Reicher, Steven Benton, Nancy Markowitz, and Eileen Chotiner, for their efforts, and look forward to receiving comments from registered entities and the public that will assist the Commission in achieving the best outcome with this rulemaking.

Appendix 4—Statement of Support of Commissioner Christy Goldsmith Romero

Over the last few years, derivatives markets have had to react quickly to new technologies, new government policies, and new economic realities. Exchanges have added many new products for futures in traditional commodity types. For example, in 2023, exchanges listed new metals contracts for lithium and molybdenum to meet growing demand in response to the historic investment in and demand for electric vehicles and batteries. And we have also seen entirely new product types proliferate. Exchanges have listed new contracts that reference novel commodities, such as digital assets and voluntary carbon market credits.

As sponsor of the CFTC's Technology Advisory Committee, I feel comfortable saying that there is no shortage of participants with new ideas seeking access to our regulated markets. Under the Commodity Exchange Act, the Commission's role includes promoting responsible innovation, while protecting customers and promoting the market integrity and transparency that makes American capital markets the deepest and most liquid in the world. New products may improve access to financial markets, reduce costs, and help manage novel risks. But novel derivative contracts and the commodity they are based on may lack a meaningful history that shows that the contract is not readily susceptible to manipulation. And for digital assets, showing that the contract is derivative of commodities rather than securities is important to prevent regulatory arbitrage.

Especially in novel cases, the Commission needs complete information so it can conduct oversight over new products on our markets. The Commission needs to be able to understand if an exchange is fulfilling its core principles that govern its conduct, to determine whether the new product complies with the law, and to understand any increased risk the contract may pose to customers and financial stability.

Under the Commodity Exchange Act, most exchanges are permitted to self-certify that new products comply with the core principles, including that they are not readily susceptible to manipulation. That means a potentially complex or novel product may enter the market even before the Commission's staff have been able to

understand fully whether it complies with the law, and the risks that it could pose. To make this assessment quickly, our staff need complete information about both the characteristics of the product and of the market for the underlying commodity that determines its price.

I support this proposal because it recognizes and helps address a trend that Commission staff have experienced—submissions not including sufficient information for the staff to fulfill the Commission's regulatory responsibility. By requiring a "complete" explanation of a new product's terms and conditions and providing context on what it means for an explanation to be "complete," this proposal would enable the Commission to fulfill its oversight responsibility, including to determine the lawfulness of the product and to assess risk.

Under the proposed changes, the Commission's ability to understand how the product's terms and conditions comply with the law is increased. This also allows the Commission to ensure that when exchanges do add new products, their decisions follow the core principles in the law, do not put market integrity at risk, and are supported by the twin pillars of customer protection and financial stability.

This proposal will help achieve the purposes of the Commission's existing heightened review standard for digital assets.¹ The heart of this heightened review is "extensive visibility and monitoring of markets and for virtual currency derivatives and underlying settlement reference rates."² Complete information at the self-certification phase will help staff better understand the risks posed by products that may not have the extensive history that allows manipulative trading patterns to be identified and that may reference digital assets traded on unregulated or unregistered spot exchanges. "Complete" information will enable a more comprehensive Commission review of risks associated with these products and underlying commodities, and any changes necessary for market integrity or to protect customers and financial stability.

This proposal would also help the Commission extend heightened review to self-certified climate and environmental products listed on exchanges, a recommendation I first made in March at ISDA's ESG Conference.³ The Commission has recognized the challenges that exist in the integrity of the spot market for carbon credits and launched an Environmental Fraud Task Force, which I advocated for, to combat fraud in this space that can impact derivatives carbon products. Adopting a

heightened review framework will allow the Commission to work closely with exchanges to ensure that they are fulfilling interest in these products in a responsible fashion. That is aided by the Commission's access to complete information about their terms and conditions and the underlying commodity at the initial self-certification.

Even where contracts address more traditional markets, the economic circumstances and customer needs are changing and the Commission needs complete information to keep pace. Notably, the Commission needs complete information on new contracts on lithium, rare earth metals, and copper, products that are drawing increased interest due to growing investment in EV's and batteries encouraged by the "triple whammy" of new laws—the Inflation Reduction Act (IRA), the Bipartisan Infrastructure Law (BIL) and the CHIPS and Science Act. Users of these products may have sourcing and production location requirements for taking advantage of the IRA's tax credits. As I said before the Environmental and Energy Advisory Market Committee, the CFTC should work with exchanges on listing standards that address those needs.⁴ Complete information will be an important tool in that effort.

The addition of requiring "complete" information would also apply to new rules that are self-certified by an exchange or clearinghouse. The emergence of novel products and technologies has also created interest in modifying long-standing rules about traditional market structure. When the CFTC released its request for comment on "vertical integration," on novel market structures, I said that this is an area that needs to be studied to determine any increased risk or unintended consequences.⁵ As I said in my statement, I am open to considering such changes to traditional market structures, but only if they do not result in increased risk to customers and financial stability.⁶ This is just as true for an existing exchange or clearinghouse seeking to change its business model as it is for a novel registrant coming before the CFTC for the first time.

The Commission has a brief window to delay implementation of self-certified rule changes that it can use when they present novel or complex issues. Complete information will help us understand when to exercise that authority.

The power of markets is that, when they work well, they are an unmatched tool for innovation. It is our responsibility as a regulator to keep updating our rules in ways that both promote responsible innovation

¹ See CFTC, *CFTC Backgrounder on Oversight of and Approach to Virtual Currency Futures Markets*, (Jan. 4, 2018), https://www.cftc.gov/sites/default/files/ido/groups/public/newsroom/documents/file/backgrounder_virtualcurrency01.pdf.

² *Id.*

³ Commissioner Christy Goldsmith Romero, *Remarks of Commissioner Christy Goldsmith Romero at ISDA's ESG Forum on Promoting Market Resilience: A Thoughtful Approach to the Daunting Challenge of Climate Financial Risk*, (Mar. 7, 2023), <https://www.cftc.gov/PressRoom/SpeechesTestimony/oparomero7>.

⁴ Commissioner Christy Goldsmith Romero at the Energy and Environmental Markets Advisory Committee, Statement of Commissioner Christy Goldsmith Romero: *The Role of Copper and Other Metals in the Electrification of America*, (Jul. 26, 2023), <https://www.cftc.gov/PressRoom/SpeechesTestimony/romerostatement062723>.

⁵ Commissioner Christy Goldsmith Romero, *Statement of CFTC Commissioner Christy Goldsmith Romero on Request for Comment on the Impact of Affiliated Entities*, (Jun. 28, 2023), <https://www.cftc.gov/PressRoom/SpeechesTestimony/romerostatement062823>.

⁶ See *Id.*

and impose appropriate guardrails that promote market integrity and transparency. I am thankful to the staff for their hard work on making an update in that spirit, and the Commission for considering this requirement.

Finally, I support the proposal because it includes changes designed to decrease systemic risk. The Commission proposes to specify when systemically important clearing houses must notify the Commission when changing rules, procedures or operations. The Commission's experience has been that the current standard of notification, which is rules, procedures or operations "that materially affect the nature or level of risks presented" is too broad or vague to be meaningful. I support the proposed notification to the Commission on material changes such as to the default management rule, programs related to risk analysis, recovery and wind down plans, revised margin methodology, cross-margining programs, or stress testing. Each of these have the potential to be related to systemic risk. The proposed changes enable the Commission to manage systemic risk, which is one of our key roles as a financial regulator.

I appreciate all of the work of the staff, and I look forward to public comment on the rule.

Appendix 5—Statement of Support of Commissioner Caroline D. Pham

I support the Notice of Proposed Rulemaking regarding Amendments to Provisions Common to Registered Entities under part 40 of the CFTC's Regulations (Part 40 Proposal) because it is important to continuously improve our rules and do good housekeeping.¹ I appreciate that this Part 40 Proposal is "intended to clarify, simplify and enhance the utility of the part 40 regulations for market participants and the Commission," as stated in the preamble. I would like to thank Rachel Kaplan Reicher, Steven Benton, and Nancy Markowitz of the Division of Market Oversight (DMO) and Eileen Chotiner of the Division of Clearing and Risk (DCR), as well as Jeannette Curtis and Phil Raimondi, for their work on the Part 40 Proposal. I appreciate the staff working with me to make revisions and address my concerns.

The Product Review Branch and Market Review Branch of DMO, and the Risk Surveillance Branch and Clearing Policy Branch of DCR, together with support from the Chief Counsel's office of each division, handle part 40² submissions. In fiscal year 2022, DMO reviewed 1,145 product filings and 1,054 rule filings. DCR reviewed 320 rule filings. These reviews are foundational to the oversight of our markets.

Accordingly, the Part 40 Proposal is intended to improve processes for review of product and rule submissions in order to use

CFTC staff resources more effectively, particularly in light of increasing volumes of filings related to binary options. The sizeable increase in listing of new binary option contracts is unsustainable, and I encourage taking a serious look at how to address this problem. Efforts could include a staff roundtable or rulemaking on the listing and trading of binary options and appropriate customer protections.

Effective Self-Regulation

The Part 40 Proposal provides a good opportunity to examine the CFTC's regulatory framework and the role of self-regulation. Part 40 was established pursuant to the Commodity Futures Modernization Act of 2000 and has been in place since 2001.³ Part 40 created a new framework for the certification and approval of new products, rules, and rule amendments that are submitted to the CFTC by registered entities⁴ such as designated contract markets (DCMs), swap execution facilities (SEFs), derivatives clearing organizations (DCOs), and swap data repositories (SDRs). It was again amended in 2011 pursuant to the Dodd-Frank Act.⁵ The Part 40 Proposal preamble states that part 40 "govern[s] how registered entities submit self-certifications, and requests for approval, of their rules, rule amendments, and new products for trading and clearing, as well as the CFTC's review and processing of such submissions."

As I have noted before, the Commodity Exchange Act⁶ (CEA or Act) mandates that the Commission serve the public interest through our oversight of "a system of effective self-regulation of trading facilities, clearing systems, market participants and market professionals."⁷ Part 40 is the cornerstone of effective self-regulation in our derivatives markets because it sets forth the standards for listing new contracts and issuing or amending rules for registered entities, including those that are self-regulatory organizations (SROs) and have rulebooks that are enforceable against SRO members. The penalties for violating SRO rules can be severe, including fines, suspension, or revocation of membership.

Our system of self-regulation works because our SROs take their role seriously in upholding the CFTC's regulatory framework and ensuring market integrity.⁸ Self-regulation is effective when it is cooperative. I commend DCMs, SEFs, DCOs, and SDRs

that recognize and support the efforts of our DMO and DCR staff, and I urge these registered entities to do their best to assist staff and make the review process as efficient as possible.

Existing Checks and Balances on Self-Regulation

Notwithstanding the important role of SROs in the CFTC's regulatory framework, the Commission must be able to exercise oversight of registered entities' new products and new rules or rule amendments. That is why our existing part 40 regulations include checks and balances on self-certification and Commission approval or non-approval for product and rule filings.

Stay of Self-Certification or Extension of Review Period

For example, regarding new products, under Rule 40.2 the Commission can stay the self-certification of a new product in circumstances involving a false certification, or a petition to alter or amend the contract terms and conditions pursuant to Section 8a(7)⁹ of the CEA.¹⁰ Under Rule 40.3, new products can be submitted to the Commission for review and approval, and the review period can be extended if the product raises novel or complex issues.¹¹

Similarly, regarding new rules or rule amendments submitted under Rule 40.5 for Commission review and approval, the Commission can extend the review period for (1) novel or complex issues, (2) major economic significance, (3) incomplete submissions, and (4) not responding completely to CFTC questions in a timely manner.¹² And under Rule 40.6, the Commission can stay the self-certification of new rule or rule amendment filings involving (1) novel or complex issues, (2) inadequate explanation, or (3) potential inconsistency with the CEA or CFTC regulations.¹³

These checks and balances are integral to the Commission's oversight of SROs, and I support DMO and DCR staff's use of all these provisions to extend or stay the review period if any of these criteria have been met—especially if there are, as applicable, incomplete submissions, inadequate explanation, or for not responding completely to CFTC questions in a timely manner. Registered entities must ensure that they dot their *i*'s and cross their *t*'s, and show their work, when submitting product or rule filings.

Non-Approval of New Products or New Rule or Rule Amendments

I want to emphasize that the existing part 40 regulations provide for Commission non-approval of new products, or new rule or rule amendments, submitted for review under Rule 40.3 or 40.5, respectively.¹⁴ Obviously,

⁹ 7 U.S.C. 12a(7). This section authorizes the Commission, in certain circumstances, "to alter or supplement the rules of a registered entity insofar as necessary or appropriate by rule or regulation or by order."

¹⁰ 17 CFR 40.2(c).

¹¹ 17 CFR 40.3(d).

¹² 17 CFR 40.5(d).

¹³ 17 CFR 40.6(c)(1).

¹⁴ 17 CFR 40.3(e) and 40.5(e).

¹ Statement of Commissioner Caroline D. Pham on Risk Management Program for Swap Dealers and Futures Commission Merchants Advance Notice of Proposed Rulemaking, U.S. Commodity Futures Trading Commission (June 1, 2023), <https://www.cftc.gov/PressRoom/SpeechesTestimony/phamstatement060123>.

² 17 CFR part 40.

³ A New Regulatory Framework for Trading Facilities, Intermediaries and Clearing Organizations, 66 FR 42255 (Aug. 10, 2001).

⁴ 17 CFR 1.3.

⁵ Provisions Common to Registered Entities, 76 FR 44776 (July 27, 2011).

⁶ 7 U.S.C. 1 *et seq.*

⁷ See Concurring Statement of Commissioner Caroline D. Pham Regarding the CFTC Request for Information on Climate-Related Financial Risk, U.S. Commodity Futures Trading Commission (June 2, 2022), <https://www.cftc.gov/PressRoom/SpeechesTestimony/phamstatement060222>.

⁸ See Statement of Commissioner Caroline D. Pham Regarding Request for Comment on the Impact of Affiliations Between Certain CFTC-Regulated Entities, U.S. Commodity Futures Trading Commission (June 28, 2023), <https://www.cftc.gov/PressRoom/SpeechesTestimony/phamstatement062823>.

a product or rule will not be approved if it violates or is inconsistent, respectively, with the CEA or CFTC regulations.¹⁵ The Commission can determine that “it will not, or is unable to approve” the product or rule, including for form and content requirements for submission, because the product “violates, appears to violate or potentially violates but which cannot be ascertained from the submission,” or the rule or rule amendment “is inconsistent or appears to be inconsistent” with the CEA and CFTC regulations.¹⁶

These standards and criteria grant the Commission and CFTC staff considerable discretion in conducting reviews of product and rule filings for approval or non-approval. Again, I support the Commission issuing a notice of *non-approval* if any of these criteria have been met.

Delegation of Authority

A hallmark of our American system of government is the constitutional law doctrine of separation of powers among the legislative, executive, and judicial branches of government.¹⁷ This doctrine ensures that each branch of government will provide checks and balances upon another branch’s exercise of power for encroachment or aggrandizement. I believe that this approach of checks and balances to defend against the over-concentration of power is especially prudent in regards to administrative agencies, who wield the authority to impose obligations on the public or withdraw previously-granted entitlements. These regulatory agencies must be fair and just in the exercise of the administrative power, which is derived from both the legislative branch and the executive branches of government.

The self-regulatory framework set forth in the CEA and CFTC regulations reflects the scales of justice in the balance between a free, and safe, society. I caution against any attempt to put a thumb on the scale which would upset this delicate balance, including

further delegations of authority by the Commission to the staff.¹⁸

It is a truism that the heads of administrative agencies are a step removed from the will of the people,¹⁹ because agency heads are not directly elected, but are instead appointed by the President with the advice and consent of the Senate. Therefore, this sentiment rings even more true with respect to the delegation of authority by the Commission to the staff, who though are dedicated public servants, are even more attenuated from the will of the people. Like liberty, both the public trust and delegations of authority by the Commission, “once lost, is lost forever.”²⁰

Other Part 40 Issues

Finally, good process produces good outcomes, and there are other issues in part 40 that should be addressed.²¹ I hope that the Commission does not wait another 12 years to fix them.

Derivatives Markets and the Real Economy

The CFTC is uniquely positioned at the intersection of the real economy and financial markets. Derivatives are inextricably linked to the underlying reference asset, and our derivatives markets

span the breadth of agricultural products and other goods and articles, services, rights, and interests in the stream of commerce and financial markets.²²

Because of the importance of derivatives markets to the real economy—in order to facilitate risk management and price discovery for farmers and ranchers, all the way to the largest Fortune 100 companies—the Commission is mandated to serve this “national public interest” through our oversight of a system of effective self-regulation.²³

This statutory mandate is intentional, and coupled with the mandate to promote responsible innovation and fair competition,²⁴ the message is clear: Derivatives markets should enable growth and progress for commercial enterprise and free markets through providing a release valve for risk transfer as part of the engine of the real economy.

Growth and progress is how the United States and the American people have achieved the largest economy in the world, with the deepest and most liquid capital markets. This is why America is the land of opportunity—why I stand for growth, progress, and access to markets—and why the Commission must preserve the balance in our system of effective self-regulation in the derivatives markets.

I look forward to public comment on the Part 40 Proposal.

[FR Doc. 2023–18694 Filed 9–5–23; 8:45 am]

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²² 7 U.S.C. 2(1). There are some important exceptions and ongoing legal debate as to the outer limits of the definition of a “commodity” under the CEA. See *CFTC v. My Big Coin Pay, Inc.*, 334 F. Supp. 3d 492, 498 (D. Mass. 2018) (citing *CFTC v. McDonnell*, 287 F. Supp. 3d 213, 228 (E.D.N.Y. 2018)).

²³ 7 U.S.C. 5(a). See Concurring Statement of Commissioner Caroline D. Pham Regarding the CFTC Request for Information on Climate-Related Financial Risk, U.S. Commodity Futures Trading Commission (June 2, 2022), <https://www.cftc.gov/PressRoom/SpeechesTestimony/phamstatement060222>.

²⁴ 7 U.S.C. 5(b). See Concurring Statement of Commissioner Caroline D. Pham Regarding the CFTC Request for Information on Climate-Related Financial Risk, U.S. Commodity Futures Trading Commission (June 2, 2022), <https://www.cftc.gov/PressRoom/SpeechesTestimony/phamstatement060222>.

¹⁵ 17 CFR 40.3(b), (e) and 40.5(b), (e).

¹⁶ *Id.*

¹⁷ “[T]he accumulation of all powers, legislative, executive, and judiciary, in the same hands, whether of one, a few, or many, and whether hereditary, self-appointed, or elective, may justly be pronounced the very definition of tyranny.” James Madison, *The Federalist* No. 48 (Feb. 1, 1788), <https://guides.loc.gov/federalist-papers/text-41-50#s-lg-box-wrapper-25493415>.

¹⁸ See generally James Madison, *The Federalist* No. 51 (Feb. 8, 1788) (“But the great security against a gradual concentration of the several powers in the same department, consists in giving to those who administer each department the necessary constitutional means and personal motives to resist encroachments of the others.”), <https://guides.loc.gov/federalist-papers/text-51-60>.

¹⁹ Cf. The general will, or *volonté générale*. Jean-Jacques Rousseau, Article VI, Declaration of the Rights of Man and of the Citizen (1789).

²⁰ The full quotation is: “But a Constitution of Government once changed from Freedom, can never be restored. Liberty once lost is lost forever.” “John Adams to Abigail Adams, 7 July 1775,” *Founders Online*, National Archives, <https://founders.archives.gov/documents/Adams/04-01-02-0160>.

²¹ See Walt Lukken, FIA CEO, Open letter to CFTC Chairman Giancarlo regarding the listing of cryptocurrency derivatives (Dec. 7, 2017), <https://www.fia.org/fia/articles/open-letter-cftc-chairman-giancarlo-regarding-listing-cryptocurrency-derivatives> and Dissenting Statement of Commissioner Caroline D. Pham Regarding the Review and Stay of KalshiEX LLC’s Political Event Contracts, U.S. Commodity Futures Trading Commission (Aug. 26, 2022), <https://www.cftc.gov/PressRoom/SpeechesTestimony/phamstatement082622>.

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