Document	ADAMS accession No./ **Federal Register** citation
Direct Final Rule, 10 CFR Part 72, ''List of Approved Spent Fuel Storage Casks: TN Americas LLC, NUHOMS® EOS Dry Spent Fuel Storage System, Certificate of Compliance No. 1042; [NRC–2016–0254] RIN 3150–AJ88,'' March 24, 2017.	82 FR 14987.
Correcting Amendment, 10 CFR Part 72, ''List of Approved Spent Fuel Storage Casks: TN Americas LLC, NUHOMS® EOS Dry Spent Fuel Storage System, Certificate of Compliance No. 1042; [NRC–2016–0254] RIN 3150–AJ88,'' July 25, 2017.	82 FR 34387.
Initial Application from TN Americas LLC for Certificate of Compliance No. 1042, Amendment No. 2, to NUHOMS EOS Dry Spent Fuel Storage System Certificate of Compliance No. 1042, April 18, 2019.	ML19114A227 (package).
Submittal of Acceptance Review of TN Americas LLC Application for Certificate of Compliance No. 1042, Amendment No. 2, to NUHOMS EOS System, Revision 1, Response to Request for Supplemental Information., August 5, 2019.	ML19225C845.
Acceptance Review of TN Americas LLC Application for Certificate of Compliance No. 1042, Amendment No. 2, to NUHOMS EOS System, Revision 2, Supplemental Information, October 2, 2019.	ML19282A518.
Acceptance Review of TN Americas LLC Application for Certificate of Compliance No. 1042, Amendment No. 2, to NUHOMS EOS System, Revision 3—Supplemental Information, October 29, 2019.	ML19311C551.
TN Americas LLC, Application for Certificate of Compliance No. 1042, Amendment No. 2, to NUHOMS EOS System, Revision 5, June 30, 2020.	ML20190A135.
Application for Certificate of Compliance No. 1042, Amendment No. 2, to NUHOMS EOS System, Revision 6, Revised Responses to Request for Additional Information, October 29, 2020.	ML20315A417.
TN America, LLC—Application for Certificate of Compliance No. 1042 Amendment No. 2 to NUHOMS EOS System, Revision 7—Revised Response to Request for Additional Information, January 27, 2021.	ML21027A324.
User Need Memorandum Package to T. Martinez Navedo from J. McKirgan with Proposed Certificate of Compliance No. 1042, Amendment No. 2; Associated Proposed Technical Specifications; and the Preliminary Safety Evaluation Report, June 7, 2021.	ML21125A103 (package).

The NRC may post materials related to this document, including public comments, on the Federal Rulemaking website at *https://www.regulations.gov* under Docket ID NRC–2021–0124.

Dated: August 4, 2021.

For the Nuclear Regulatory Commission.

Margaret M. Doane,

Executive Director for Operations.

[FR Doc. 2021–17228 Filed 8–11–21; 8:45 am]

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DEPARTMENT OF ENERGY

10 CFR Part 430

[EERE–2017–BT–STD–0023]

RIN 1905–AE01

Energy Conservation Program: Energy Conservation Standards for Microwave Ovens

AGENCY: Office of Energy Efficiency and Renewable Energy, Department of Energy.

ACTION: Notification of proposed determination and request for comment.

SUMMARY: The Energy Policy and Conservation Act, as amended, prescribes energy conservation standards for various consumer products and certain commercial and industrial equipment, including microwave ovens. EPCA also requires the U.S. Department of Energy (''DOE'') to periodically determine whether more-stringent, amended standards would be technologically feasible and economically justified, and would result in significant energy savings. In this notification of proposed determination (''NOPD''), DOE has initially determined that energy conservation standards for microwave ovens do not need to be amended and requests comment on this proposed determination and the associated analyses and results.

DATES:

Meeting: DOE will hold a webinar on Monday, September 13, 2021, from 10:00 a.m. to 3:00 p.m. See section VII, ''Public Participation,'' for webinar registration information, participant instructions, and information about the capabilities available to webinar participants.

Comments: Written comments and information are requested and will be accepted on or before October 12, 2021.

Interested persons are encouraged to submit comments using the Federal eRulemaking Portal at *https://www.regulations.gov.* Alternatively, interested persons may submit comments, identified by docket number EERE–2017–BT–STD–0023, by any of the following methods:

1. *Federal eRulemaking Portal: https://www.regulations.gov.* Follow the instructions for submitting comments.

2. *Email:* to *MWO2017STD0023@ee.doe.gov.* Include docket number EERE–2017–BT–STD–0023 in the subject line of the message.

No telefacsimiles (''faxes'') will be accepted. For detailed instructions on submitting comments and additional information on this process, see section VII of this document.

Although DOE has routinely accepted public comment submissions through a variety of mechanisms, including email, postal mail, or hand delivery/courier, the Department has found it necessary to make temporary modifications to the comment submission process in light of the ongoing Covid–19 pandemic. DOE is currently suspending receipt of public comments via postal mail and hand delivery/courier. If a commenter finds that this change poses an undue hardship, please contact Appliance Standards Program staff at (202) 586–1445 to discuss the need for alternative arrangements. Once the Covid–19 pandemic health emergency is resolved, DOE anticipates resuming all of its regular options for public comment submission, including postal mail and hand delivery/courier.

Docket: The docket, which includes **Federal Register** notices, webinar attendee lists and transcripts, comments, and other supporting documents/materials, is available for review at *https://www.regulations.gov.* All documents in the docket are listed in the *https://www.regulations.gov* index. However, not all documents listed in the index may be publicly available, such as information that is exempt from public disclosure.

The docket web page can be found at *https://www.regulations.gov/#!docketDetail;D=EERE-2017-BT-STD-0023.* The docket web page contains instructions on how to access all documents, including public comments, in the docket. See section VII, ''Public Participation,'' for further information

on how to submit comments through *https://www.regulations.gov.*

FOR FURTHER INFORMATION CONTACT:

Dr. Stephanie Johnson, U.S. Department of Energy, Office of Energy Efficiency and Renewable Energy, Building Technologies Office, EE–5B, 1000 Independence Avenue SW, Washington, DC 20585–0121. Email: *ApplianceStandardsQuestions@ee.doe.gov.*

Ms. Celia Sher, U.S. Department of Energy, Office of the General Counsel, GC–33, 1000 Independence Avenue SW, Washington, DC 20585–0121. Telephone: (202) 287–6122. Email: *Celia.Sher@hq.doe.gov.*

For further information on how to submit a comment or review other public comments and the docket contact the Appliance and Equipment Standards Program staff at (202) 287–1445 or by email: *ApplianceStandardsQuestions@ee.doe.gov.*

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I. Synopsis of the Proposed Determination

Title III, Part B [1] of the Energy Policy and Conservation Act, as amended (''EPCA''),[2] established the Energy Conservation Program for Consumer Products Other Than Automobiles. (42 U.S.C. 6291–6309) These products include kitchen ranges and ovens, which encompass microwave ovens, the subject of this NOPD. (42 U.S.C. 6292(a)(10))

DOE is issuing this NOPD pursuant to the EPCA requirement that not later than 6 years after issuance of any final rule establishing or amending a standard, DOE must publish either a notification of determination that standards for the product do not need to be amended, or a notice of proposed rulemaking (''NOPR'') including new proposed energy conservation standards (proceeding to a final rule, as appropriate). (42 U.S.C. 6295(m))

For this proposed determination, DOE analyzed microwave ovens subject to standards specified in 10 CFR 430.32(j)(3).

DOE first analyzed the technological feasibility of microwave ovens with lower energy use. For those microwave ovens for which DOE determined higher standards to be technologically feasible, DOE estimated energy savings that would result from potential energy conservation standards by using the same approach as when it conducts a national impacts analysis.

Based on the results of the analyses, summarized in section V of this document, DOE has tentatively determined that current standards for microwave ovens do not need to be amended.

II. Introduction

The following section briefly discusses the statutory authority underlying this proposed determination, as well as some of the historical background relevant to the establishment of standards for microwave ovens.

A. Authority

EPCA authorizes DOE to regulate the energy efficiency of a number of consumer products and certain industrial equipment. Title III, Part B of EPCA established the Energy Conservation Program for Consumer Products Other Than Automobiles. These products include kitchen ranges and ovens, which include microwave ovens, the subject of this document. (42 U.S.C. 6292(a)(10)) EPCA prescribed energy conservation standards for kitchen ranges and ovens and directed DOE to conduct two cycles of rulemakings to determine whether to amend standards for these products. (42 U.S.C. 6295(h)(2)(A)–(B))

The energy conservation program for covered products under EPCA consists essentially of four parts: (1) Testing, (2) labeling, (3) the establishment of Federal energy conservation standards, and (4) certification and enforcement procedures. Relevant provisions of EPCA specifically include definitions (42 U.S.C. 6291), test procedures (42 U.S.C. 6293), labeling provisions (42 U.S.C. 6294), energy conservation standards (42 U.S.C. 6295), and the authority to require information and reports from manufacturers (42 U.S.C. 6296).

Subject to certain criteria and conditions, DOE is required to develop test procedures to measure the energy efficiency, energy use, or estimated annual operating cost of each covered product. (42 U.S.C. 6295(o)(3)(A) and 42 U.S.C. 6295(r)) Manufacturers of covered products must use the prescribed DOE test procedure as the basis for certifying to DOE that their products comply with the applicable energy conservation standards adopted under EPCA and when making representations to the public regarding the energy use or efficiency of those products. (42 U.S.C. 6293(c) and 42 U.S.C. 6295(s)) Similarly, DOE must use these test procedures to determine whether the products comply with standards adopted pursuant to EPCA.

[1] For editorial reasons, upon codification in the U.S. Code, Part B was redesignated Part A.

[2] All references to EPCA in this document refer to the statute as amended through the Energy Act of 2020, Public Law 116–260 (Dec. 27, 2020).

(42 U.S.C. 6295(s)) The DOE test procedures for microwave ovens appear at title 10 of the Code of Federal Regulations (''CFR'') part 430.23(i) and 10 CFR part 430, subpart B, appendix I (''Appendix I'').

Federal energy conservation requirements generally supersede State laws or regulations concerning energy conservation testing, labeling, and standards. (42 U.S.C. 6297(a)–(c)) DOE may, however, grant waivers of Federal preemption for particular State laws or regulations, in accordance with the procedures and other provisions set forth under EPCA. (See 42 U.S.C. 6297(d))

Pursuant to the amendments contained in the Energy Independence and Security Act of 2007 (''EISA 2007''), Public Law 110–140, any final rule for new or amended energy conservation standards promulgated after July 1, 2010, is required to address standby mode and off mode energy use. (42 U.S.C. 6295(gg)(3)) Specifically, when DOE adopts a standard for a covered product after that date, it must, if justified by the criteria for adoption of standards under EPCA (42 U.S.C. 6295(o)), incorporate standby mode and off mode energy use into a single standard, or, if that is not feasible, adopt a separate standard for such energy use for that product. (42 U.S.C. 6295(gg)(3)(A)–(B)) DOE's current test procedures for microwave ovens address standby mode and off mode energy use. In this analysis, DOE considers such energy use in its determination of whether energy conservation standards need to be amended.

DOE must periodically review its already established energy conservation standards for a covered product no later than 6 years from the issuance of a final rule establishing or amending a standard for a covered product. (42 U.S.C. 6295(m)) This 6-year look-back provision requires that DOE publish either a determination that standards do not need to be amended or a NOPR, including new proposed standards (proceeding to a final rule, as appropriate). (42 U.S.C. 6295(m)(1)) EPCA further provides that, not later than 3 years after the issuance of a final determination not to amend standards, DOE must publish either a notification of determination that standards for the product do not need to be amended, or a NOPR including new proposed energy conservation standards (proceeding to a final rule, as appropriate). (42 U.S.C. 6295(m)(3)(B)) DOE must make the analysis on which a determination is based publicly available and provide an opportunity for written comment. (42 U.S.C. 6295(m)(2))

A determination that amended standards are not needed must be based on consideration of whether amended standards will result in significant conservation of energy, are technologically feasible, and are cost-effective. (42 U.S.C. 6295(m)(1)(A) and 42 U.S.C. 6295(n)(2)) Additionally, any new or amended energy conservation standard prescribed by the Secretary for any type (or class) of covered product shall be designed to achieve the maximum improvement in energy efficiency which the Secretary determines is technologically feasible and economically justified. (42 U.S.C. 6295(o)(2)(A)) Among the factors DOE considers in evaluating whether a proposed standard level is economically justified includes whether the proposed standard at that level is cost-effective, as defined under 42 U.S.C. 6295(o)(2)(B)(i)(II). Under 42 U.S.C. 6295(o)(2)(B)(i)(II), an evaluation of cost-effectiveness requires DOE to consider savings in operating costs throughout the estimated average life of the covered products in the type (or class) compared to any increase in the price, initial charges, or maintenance expenses for the covered products that are likely to result from the standard. (42 U.S.C. 6295(n)(2) and 42 U.S.C. 6295(o)(2)(B)(i)(II)) DOE is publishing this NOPD in satisfaction of the 6-year review requirement in EPCA.

B. Background

1. Current Standards

In a final rule published on June 17, 2013 (''June 2013 Final Rule''), DOE prescribed the current energy conservation standards for microwave ovens manufactured on or after June 17, 2016. 78 FR 36316. These energy conservation standards address standby mode and off mode energy use and prescribe the maximum allowable average standby power in watts (''W'') as set forth in 10 CFR 430.32(j)(3) and repeated in Table II–1 of this document.

TABLE II–1—FEDERAL ENERGY CONSERVATION STANDARDS FOR MICROWAVE OVENS

Product class	Maximum allowable average standby power (w)
Microwave-Only Ovens and Countertop Convection Microwave Ovens	1.0
Built-In and Over-the-Range Convection Microwave Ovens	2.2

2. History of Standards Rulemakings for Microwave Ovens

EPCA prescribed an energy conservation standard for kitchen ranges and ovens,[3] and directed DOE to conduct two cycles of rulemakings to determine whether to amend standards for these products. (42 U.S.C. 6295(h)(2)(A)–(B)) DOE completed the first of these rulemaking cycles by publishing a final rule on September 8, 1998, that codified the prescriptive design standard for gas cooking products established in EPCA, but found that no standards were justified for electric cooking products, including microwave ovens, at that time. 63 FR 48038, 48053–48054. DOE completed the second rulemaking cycle and published a final rule on April 8, 2009, in which it determined, among other things, that standards for microwave oven active mode energy use were not economically justified. 74 FR 16040 (''April 2009 Final Rule'').

Most recently, DOE published the June 2013 Final Rule, adopting energy conservation standards for microwave ovens. 78 FR 36316. In the June 2013 Final Rule, DOE maintained its prior determination that active mode standards are not warranted for microwave ovens and prescribed energy conservation standards that address the standby and off mode energy use of microwave ovens. 78 FR 36316, 36317.

In support of the present review of the microwave oven energy conservation standards, DOE published a request for information (''RFI'') on August 13, 2019 (''August 2019 RFI''), which identified various issues on which DOE sought comment to inform its determination of whether the standards need to be amended. 84 FR 39980.

DOE received six comments in response to the August 2019 RFI from the interested parties listed in Table II–2.

[3] EPCA prescribed that gas kitchen ranges and ovens having an electrical supply cord shall not be equipped with a constant burning pilot for products manufactured on or after January 1, 1990. (42 U.S.C. 6295(h)(2)(A))

TABLE II–2—AUGUST 2019 RFI WRITTEN COMMENTS

Organization(s)	Reference in this NOPD	Organization type
Whirlpool Corporation	Whirlpool	Manufacturer.
GE Appliances	GE Appliances	Manufacturer.
Appliance Standards Awareness Project and the California Energy Commission.	ASAP and CEC	Energy Efficiency Advocate and State Energy Agency.
Edison Electric Institute	EEI	Investor Owned Utility Association.
Association of Home Appliance Manufacturers	AHAM	Industry Association.
Pacific Gas and Electric Company (''PG&E''), San Diego Gas and Electric (''SDG&E''), and Southern California Edison (''SCE'').	CA IOUs	Investor Owned Utility Association.

A parenthetical reference at the end of a comment quotation or paraphrase provides the location of the comments in the public record.[4]

III. General Discussion

DOE developed this proposed determination after considering comments and information from interested parties that represent a variety of interests. This NOPD addresses issues raised by these commenters.

A. Product Classes and Scope of Coverage

When evaluating and establishing energy conservation standards, DOE divides covered products into product classes by the type of energy used or by capacity or other performance-related features that justify differing standards. In making a determination whether a performance-related feature justifies a different standard, DOE must consider such factors as the utility of the feature to the consumer and other factors DOE determines are appropriate. (42 U.S.C. 6295(q)) The microwave oven classes for this proposed determination are discussed in further detail in section IV.B.4 of this document. This proposed determination covers microwave ovens defined as household cooking appliances consisting of a compartment designed to cook or heat food by means of microwave energy, including microwave ovens with or without thermal elements designed for surface browning of food and convection microwave ovens. This includes any microwave oven components of a combined cooking product. 10 CFR 430.2. The scope of coverage is discussed in further detail in section IV.B.1 of this document.

[4] The parenthetical reference provides a reference for information located in the docket. (Docket No. EERE–2017–BT–STD–0023, which is maintained at *https://www.regulations.gov/docket?D=EERE-2017-BT-STD-0023).* The references are arranged as follows: (Commenter name, comment docket ID number, page of that document).

B. Test Procedure

EPCA sets forth generally applicable criteria and procedures for DOE's adoption and amendment of test procedures. (42 U.S.C. 6293) Manufacturers of covered products must use these test procedures to certify to DOE that their product complies with energy conservation standards and to quantify the energy use of their product. (42 U.S.C. 6295(s) and 42 U.S.C. 6293(c)) DOE's current energy conservation standards for microwave ovens are expressed in terms of average watts of standby mode power consumption. See 10 CFR 430.23(j)(3). DOE originally established test procedures for microwave ovens in an October 3, 1997 final rule that addressed active mode energy use only. 62 FR 51976. Those procedures were based on the International Electrotechnical Commission (''IEC'') Standard 705—Second Edition 1998 and Amendment 2–1993, ''Methods for Measuring the Performance of Microwave Ovens for Households and Similar Purposes'' (''IEC Standard 705''). On July 22, 2010, DOE published in the **Federal Register** a final rule for the microwave oven test procedures (''July 2010 Repeal Final Rule''), in which it repealed the regulatory test procedures for measuring the cooking efficiency of microwave ovens. 75 FR 42579. In the July 2010 Repeal Final Rule, DOE determined that the existing microwave oven test procedure did not produce representative and repeatable test results. 75 FR 42579, 42580. DOE stated at that time that it was unaware of any test procedures that had been developed that address these concerns. 75 FR 42579, 42581.

On March 9, 2011, DOE published an interim final rule establishing test procedures for microwave ovens regarding the measurement of the average standby mode and average off mode power consumption that incorporated by reference specific clauses from the IEC Standard 62301, ''Household electrical appliances—Measurement of standby power,'' First Edition 2005–06 (''IEC Standard 62301 (First Edition)''). 76 FR 12825. On January 18, 2013, DOE published a final rule amending the microwave oven test procedure to incorporate by reference certain provisions of the revised IEC Standard 62301 Edition 2.0 2011–01, along with clarifying language for the measurement of standby mode and off mode energy use. 78 FR 4015.

On December 16, 2016, DOE published a final rule (''December 2016 TP Final Rule'') amending the cooking products test procedure to, in part, incorporate methods for calculating the annual standby mode and off mode energy consumption of the microwave oven component of a combined cooking product by allocating a portion of the combined low-power mode energy consumption measured for the combined cooking product to the microwave oven component using the estimated annual cooking hours for the given components comprising the combined cooking product. 81 FR 91418, 91438–91439. That final rule, which resulted in the most recent version of the microwave oven test procedure, was codified in the CFR at Appendix I.

On January 18, 2018, DOE published an RFI (''January 2018 RFI'') initiating a data collection process to assist in its evaluation of the test procedure for microwave ovens. 83 FR 2366. On November 14, 2019, DOE published a NOPR (''November 2019 TP NOPR'') proposing amendments to the existing test procedure with requirements for both the clock display and network functionality when testing standby mode and off mode power consumption and certain technical corrections. 84 FR 61836. DOE subsequently published an SNOPR on August 3, 2021 (''August 2021 TP SNOPR'') providing additional clarification on the requirements for testing microwave ovens with network functionality. 86 FR 41759.

C. Technological Feasibility

1. General

In evaluating potential amendments to energy conservation standards, DOE conducts a screening analysis based on information gathered on all current technology options and prototype designs that could improve the efficiency of the products or equipment that are the subject of the determination. As the first step in such an analysis, DOE develops a list of technology options for consideration in consultation with manufacturers, design engineers, and other interested parties. DOE then determines which of those means for improving efficiency are technologically feasible. DOE considers technologies incorporated in commercially available products or in working prototypes to be technologically feasible. 10 CFR part 430, subpart C, appendix A, sections 6(c)(3)(i) and 7(b)(1).

After DOE has determined that particular technology options are technologically feasible, it further evaluates each technology option in light of the following additional screening criteria: (1) Practicability to manufacture, install, and service; (2) adverse impacts on product utility or availability; (3) adverse impacts on health or safety; and (4) unique-pathway proprietary technologies. 10 CFR part 430, subpart C, appendix A, sections 6(c)(3)(ii)–(v) and 7(b)(2)–(5). Section IV.B.3 of this document discusses the results of the screening analysis for microwave ovens, particularly the designs DOE considered, those it screened out, and those that are the basis for the standards considered in this proposed determination.

2. Maximum Technologically Feasible Levels

As when DOE proposes to adopt an amended standard for a type or class of covered product, in this analysis it must determine the maximum improvement in energy efficiency or maximum reduction in energy use that is technologically feasible for such a product. (42 U.S.C. 6295(p)(1)) Accordingly, in the engineering analysis, DOE determined the maximum technologically feasible (''max-tech'') improvements in energy efficiency for microwave ovens, using the design parameters for the most efficient products available on the market or in working prototypes. The max-tech levels that DOE determined for this analysis are described in section IV.C of this proposed determination.

D. Energy Savings

1. Determination of Savings

For each efficiency level (''EL'') evaluated using the tools developed for the June 2013 Final Rule,[5] DOE projected energy savings from application of the EL to the microwave ovens purchased in the 30-year period that begins in the assumed year of compliance with the potential standards (2024–2053). The savings are measured over the entire lifetime of the microwave ovens purchased in the 30-year period. DOE quantified the energy savings attributable to each EL as the difference in energy consumption between each standards case and the no-new-standards case. The no-new-standards case represents a projection of energy consumption that reflects how the market for a product would likely evolve in the absence of amended energy conservation standards. DOE used the methodology from its national impact analysis to estimate national energy savings (''NES'') from potential amended standards for microwave ovens. The methodology calculates energy savings in terms of site energy, which is the energy directly consumed by products at the locations where they are used.

2. Significance of Savings

In determining whether amended standards are needed, DOE must consider whether such standards will result in significant conservation of energy. (42 U.S.C. 6295(m)(1)(A) and 42 U.S.C. 6295(o)(3)(B)) Although the term ''significant'' is not defined in the EPCA, the U.S. Court of Appeals, for the District of Columbia Circuit in *Natural Resources Defense Council* v. *Herrington,* 768 F.2d 1355, 1373 (D.C. Cir. 1985), opined that Congress intended ''significant'' energy savings in the context of EPCA to be savings that were not ''genuinely trivial.''

Historically, DOE did not provide specific guidance or a numerical threshold for determining what constitutes significant conservation of energy. Instead, DOE determined on a case-by-case basis whether a particular rulemaking would result in significant conservation of energy. In a final rule published February 14, 2020, DOE adopted a numerical threshold for significant conservation of energy. 85 FR 8626, 8670. Specifically, the threshold requires that an energy conservation standard result in a 0.30 quadrillion British thermal units (''quads'') reduction in site energy use over a 30-year analysis period or a 10-percent reduction in site energy use over that same period. *Id.* Although a numeric threshold may serve as an informative guide, the significance of energy savings offered by a new or amended energy conservation standard cannot be determined without knowledge of the specific circumstances surrounding a given rulemaking. For example, the United States has now rejoined the Paris Agreement and will exert leadership in confronting the climate crisis.[6] Additionally, some covered products and equipment have most of their energy consumption occur during periods of peak energy demand. The impacts of these products on the energy infrastructure can be more pronounced than products with relatively constant demand. Further establishing a set, numerical site energy threshold for all covered products and equipment does not allow DOE to account for differences in primary energy and full-fuel-cycle (''FFC'') effects for different covered products and equipment when determining whether energy savings are significant. Primary energy and FFC effects include the energy consumed in electricity production (depending on load shape), in distribution and transmission, and in extracting, processing, and transporting primary fuels (*i.e.,* coal, natural gas, petroleum fuels), and thus present a more complete picture of the impacts of energy conservation standards. Accordingly, in a two part NOPR process, the first of which published on April 12, 2021 and part two on July 7, 2021, DOE reconsidered the numerical threshold process for determining significance of energy savings and whether to revert to its prior practice of making such determinations on a case-by-case basis. 86 FR 18901, 35668. Currently, under section 6(b) of appendix A to 10 CFR part 430 subpart C (''Process Rule''), if DOE determines that a more stringent energy conservation standard would not result in an additional 0.3 quads of site energy savings or an additional 10-percent reduction in site energy use over a 30-year period, DOE would propose to make a no-new standards determination.

E. Cost Effectiveness

Under EPCA's six-year-lookback review provision for existing energy

[5] U.S. Department of Energy (DOE), 2013–06–17 Energy Conservation Program: Energy Conservation Standards for Standby Mode and Off Mode for Microwave Ovens; Final Rule. *https://www.regulations.gov/document?D=EERE-2011-BT-STD-0048-0027.*

[6] *See* Executive Order 14008, 86 FR 7619 (Feb. 1, 2021) (''Tackling the Climate Crisis at Home and Abroad'').

conservation standards at 42 U.S.C. 6295(m)(1), cost-effectiveness of potential amended standards is a relevant consideration both where DOE proposes to adopt such standards, as well as where it does not. In considering cost-effectiveness when making a determination of whether existing energy conservation standards do not need to be amended, DOE considers the savings in operating costs throughout the estimated average life of the covered product compared to any increase in the price of, or in the initial charges for, or maintenance expenses of, the covered product that are likely to result from a standard. (42 U.S.C. 6295(m)(1)(A)(*referencing* 42 U.S.C. 6295(n)(2))) Additionally, any new or amended energy conservation standard prescribed by the Secretary for any type (or class) of covered product shall be designed to achieve the maximum improvement in energy efficiency which the Secretary determines is technologically feasible and economically justified. 42 U.S.C. 6295(o)(2(A) Cost-effectiveness is one of the factors that DOE must ultimately consider under 42 U.S.C. 6295(o)(2)(B) to support a finding of economic justification, if it is determined that amended standards are appropriate under the applicable statutory criteria. (42 U.S.C. 6295(o)(2)(B)(i)(II)))

IV. Methodology and Discussion of Related Comments

This section addresses the analyses DOE performed for this proposed determination regarding microwave ovens. Separate subsections address components of DOE's analyses as performed for the June 2013 Final Rule. DOE used a national impact analysis methodology and calculated the NES expected to result from potential energy conservation standards.

A. Active Mode Standards

As part of the January 2018 RFI, DOE requested information on the feasibility of establishing an active mode test procedure for microwave ovens, including convection microwave ovens. 83 FR 2566, 2570. Similarly, in the August 2019 RFI, DOE requested comment and information on whether standards for microwave ovens in active mode were justified and on the feasibility of incorporating active mode, standby mode and off mode energy use into a single standard if DOE were to develop an active mode test procedure. 84 FR 39980, 39983.

In response to the August 2019 RFI, DOE received several comments related to active mode energy conservation standards. GE Appliances stated that there is no justification for active mode energy conservation standards due to the insufficient energy savings and lack of economic benefit. (GE Appliances, No. 5 at p. 2) GE Appliances and AHAM also stated that no other country currently requires active mode testing for microwave oven energy conservation standards, with AHAM adding that a requirement for active mode measurement would put the United States at odds with other countries, be unduly burdensome, and would require 5–6 times the current test time. (GE Appliances, No. 5 at p. 2 and AHAM, No. 6 at p. 2) AHAM stated that if DOE were to amend the test procedure to address active mode energy use, DOE would need to seek information again on energy conservation standards for microwave ovens as the test procedure affects the standards analysis. (AHAM No. 5, at p. 2)

AHAM further commented that it does not believe that standards would be justified for active mode because, to AHAM's knowledge, there is no technology currently available to reduce energy use in the active mode for either microwave-only ovens or convection microwave ovens. AHAM stated that there is no evidence to indicate that DOE's prior analysis and determination in the April 2009 Final Rule that active mode standards for microwave ovens would not be economically justified would be different today. The CA IOUs provided comments in support of incorporating active mode energy usage into microwave oven efficiency standards, stating that active mode accounts for 80 percent of annualized unit energy consumption for microwave ovens. (CA IOUs, No. 7 at p. 3) ASAP and CEC encouraged DOE to adopt an active mode test procedure for microwave ovens, stating that active mode energy consumption is almost 90 percent of the total annual energy consumption for microwave ovens, and that there is significant variation in active mode energy use among models. ASAP and CEC added that it likely is not technically feasibility to incorporate active mode, standby mode, and off mode into a single energy use metric. (ASAP and CEC, No. 8 at p. 1)

As stated, the DOE test procedure does not measure active mode energy use of microwave ovens. DOE considered in the most recent microwave oven test procedure rulemaking whether to adopt provisions for measuring the energy use of microwave ovens in active mode. In the November 2019 TP NOPR, DOE made an initial determination that an active mode measurement for microwave ovens would be unduly burdensome at this time due to the expected increase in testing cost resulting from increased testing time and the potential need for new laboratory equipment and facility upgrades that would not be justified. 84 FR 61838. Therefore, DOE did not propose an active mode test procedure in the November 2019 TP NOPR. Accordingly, DOE did not consider energy conservation standards for active mode energy use of microwave ovens in this NOPD.

Additionally, consistent with AHAM's comment, DOE is unaware of changes to the market or available technology that would suggest DOE's previous determination in the April 2009 Final Rule that an energy conservation standard for microwave oven active mode would not be technologically feasible and economically justified would be different at the present time. *See* 74 FR 16040, 16087.

B. Market and Technology Assessment

DOE develops information in the market and technology assessment that provides an overall picture of the market for the products concerned, including the purpose of the products, the industry structure, manufacturers, market characteristics, and technologies used in the products. This activity includes both quantitative and qualitative assessments, based primarily on publicly available information. The subjects addressed in the market and technology assessment for this proposed determination include (1) a determination of the scope and product classes, (2) manufacturers and industry structure, (3) existing efficiency programs, (4) shipments information, (5) market and industry trends, and (6) technologies or design options that could improve the energy efficiency of microwave ovens. The key findings of DOE's market assessment are summarized in the following sections.

1. Scope of Coverage and Product Classes

In this analysis, DOE relied on the definition of microwave ovens in 10 CFR 430.2, which defines ''microwave oven'' as household cooking appliances consisting of a compartment designed to cook or heat food by means of microwave energy, including microwave ovens with or without thermal elements designed for surface browning of food and convection microwave ovens. This includes any microwave oven components of a combined cooking product. Any product meeting the definition of microwave oven is included in DOE's scope of coverage.

For this proposed determination, DOE considered the two product classes of microwave ovens prescribed in the current energy conservation standards: (1) Microwave-Only Ovens and Countertop Convection Microwave Ovens, and (2) Built-In and Over-the-Range Convection Microwave Ovens. Section IV.B.4 of this document describes the two product classes in additional detail.

As previously stated in section III.B of this document, for these two classes of microwave ovens, DOE's current test procedure measures the energy consumption in standby mode and off mode only. Consequently, DOE's current energy conservation standards for microwave ovens are also expressed in terms of standby mode and off mode power. There are currently no active mode energy conservation standards nor a prescribed test procedure for measuring the active mode energy use or efficiency (*e.g.,* cooking efficiency) of microwave ovens.

GE Appliances stated that using the microwave oven standards to regulate combined cooking products would improperly regulate the non-microwave portion of the combined product. (GE Appliances, No. 5 at p. 2) AHAM stated that there is no technological method to accurately measure the standby mode and off mode power consumption of the microwave oven portion of a combined cooking product, as a combined cooking product typically has one power source. (AHAM, No. 6 at p. 4)

In a final rule published on August 18, 2020 (''August 2020 TP Final Rule), DOE withdrew the test procedure for conventional cooking tops, determining that it was not representative of energy use or efficiency during an average use cycle and was overly burdensome to conduct. 85 FR 50757. As part of the August 2020 TP Final Rule, DOE removed provisions for measuring the energy use of combined cooking products, which are household cooking appliances that combine a cooking product with other appliance functionality (*e.g.,* microwave/conventional cooking tops, microwave/conventional ovens, and microwave/conventional ranges.) *Id.* The current test procedure for measuring standby mode and off mode power consumption for microwave ovens excludes the microwave oven component of a combined cooking product. Appendix I, Section 3.2.1.

DOE also received several comments related to microwave ovens equipped with connected functionality in response to the August 2019 RFI. EEI stated that DOE should update the current microwave oven standby mode requirements to account for new technologies, including the integration of ''smart'' devices with demand response functionality. (EEI, No. 4 at p. 2) EEI stated that, to the extent that energy use of a ''connected'' function is measured, the current energy conservation standards for microwave ovens may impede the inclusion of such functions. *Id.* EEI suggested DOE should revise the microwave oven standby power requirements to contain three categories of microwave oven operation: standby and non-connected, standby and connected, and standby and disconnected. (EEI, No. 3 at p. 2) AHAM urged DOE not to revise the microwave oven test procedure or standards to account for the energy consumed while performing connected functions to avoid stifling innovation and potential energy saving benefits. (AHAM, No. 6 at p. 7) Based on a review of manufacturer websites and user manuals of various appliances, as well as testing conducted at DOE and third-party laboratories, connected features continue to be implemented in a variety of ways across different brands. Further, the design and operation of these features is continuously evolving as the market continues to grow for these products. Because there are a lack of available data to establish a representative test configuration for assessing the energy consumption of network functionality for microwave ovens, DOE, in the August 2021 TP SNOPR, proposed explicit language to generally require network functions to be disabled during testing. 86 FR 41759. As such, DOE is not addressing energy consumption specific to connected functions in this proposed determination.

2. Technology Options

To develop a list of technology options, DOE uses information about existing and past technology options and prototype designs to help identify technologies that manufacturers could use to meet and/or exceed a given set of energy conservation standards under consideration.

In the August 2019 RFI, DOE identified several technology options that would be expected to reduce the energy consumption of microwave ovens in standby mode and off mode, as measured by the DOE test procedure. 84 FR 39980, 39984–39985.

TABLE IV–1—MICROWAVE OVEN TECHNOLOGY OPTIONS

Mode	Technology option
Standby	Lower-power display technologies.
Standby	Cooking sensors with no standby power requirement.
Standby	Improved power supply and control board options.
Standby	Automatic power-down of most power-consuming components, including the clock display.

3. Screening Analysis

DOE uses the following five screening criteria to determine which technology options are suitable for further consideration in an energy conservation standards rulemaking:

(1) *Technological feasibility.* Technologies that are not incorporated in commercial products or in working prototypes will not be considered further.

(2) *Practicability to manufacture, install, and service.* If it is determined that mass production and reliable installation and servicing of a technology in commercial products could not be achieved on the scale necessary to serve the relevant market at the time of the projected compliance date of the standard, then that technology will not be considered further.

(3) *Impacts on product utility or product availability.* If it is determined that a technology would have significant adverse impact on the utility of the product to significant subgroups of consumers or would result in the unavailability of any covered product type with performance characteristics (including reliability), features, sizes, capacities, and volumes that are substantially the same as products generally available in the United States at the time, it will not be considered further.

(4) *Adverse impacts on health or safety.* If it is determined that a technology would have significant adverse impacts on health or safety, it will not be considered further.

(5) *Unique-Pathway Proprietary Technologies.* If a design option utilizes proprietary technology that represents a unique pathway to achieving a given efficiency level, that technology will not be considered further.

10 CFR part 430, subpart C, appendix A, sections 6(c)(3) and 7(b). In summary, if DOE determines that a technology, or a combination of technologies, fails to meet one or more of the listed five criteria, it will be excluded from further consideration in the engineering analysis.

Regarding impacts of technology options on costs, DOE does not consider cost as a factor for screening out technology options. DOE considers the economic impacts and costs on individual customers, manufacturers, and the nation in later analyses.

DOE received several comments on technology options in response to the August 2019 RFI. Whirlpool stated that all feasible technology options are currently used in microwave ovens to meet DOE's current energy conservation standards. (Whirlpool, No. 3 at p. 1) GE Appliances stated that all available and economically feasible technologies are being used in microwave ovens. (GE Appliances, No. 5 at p. 2) AHAM commented that all technology options are being employed to meet current energy conservation standards, and that it is not aware of any new technologies that increase the efficiency of microwave ovens without decreasing consumer utility. (AHAM, No. 6 at p. 4) AHAM also stated that most microwave ovens on the market are minimally compliant with the current standards, and that these units are already using the available technology options. (AHAM, No. 6 at p. 5) Whirlpool stated that additional reduction in standby mode power consumption would jeopardize key functionalities demanded by consumers, would be technologically impractical, and would be cost prohibitive. (Whirlpool, No. 3 at p. 1) CA IOUs urged DOE to investigate more stringent microwave oven standby mode standards, stating that there is evidence that technological limitations have changed since the last rulemaking. The CA IOUs commented that 33 percent of microwave-only ovens and countertop convection microwave ovens and 11 percent of built-in and over-the-range convection microwave ovens are performing better than the current standards. (CA IOUs, No. 7 at p. 1) ASAP and CEC commented that there are a range of potential intermediate efficiency levels between the current standards and the max-tech levels from the previous final rule, citing data from DOE's Compliance Certification Database,[7] which shows that for microwave-only and countertop convection microwave ovens, the models with the lowest standby power consumption consume just 0.10–0.19 W and for built-in and over-the-range convection microwave ovens, the models with the lowest standby power consumption consume 0.50–0.59 W.

DOE notes that nearly 30 percent of microwave-only ovens and countertop convection microwave ovens and 20 percent of built-in and over-the-range convection microwave ovens certified in the Compliance Certification Database exceed the minimum requirements for standby mode and off mode energy use (*i.e.,* have standby power consumption that is lower than the applicable standard). The Compliance Certification Database data indicates that technology options to achieve efficiencies higher than the current DOE standard readily exists without jeopardizing key functionalities. Consistent with the screening criteria previously discussed, DOE's engineering analysis considered technologies that are technologically feasible and that do not have significant adverse impacts on the utility of the microwave ovens to significant subgroups of consumers or that would result in the unavailability of any microwave oven with performance characteristics (including reliability), features, sizes, capacities, and volumes that are substantially the same as products generally available in the United States.

a. Screened-Out Technologies

As discussed, DOE takes into account whether a technology option will adversely impact consumer utility and product availability. In response to the August 2019 RFI, GE Appliances stated that clock displays are a critical function of microwave ovens. (GE Appliances, No. 5 at p. 2) Similarly, AHAM stated that an automatic power-down feature that shuts off the clock display decreases consumer utility, and that maintaining the clock display is critical. (AHAM, No. 6 at p. 6)

DOE has previously stated it is uncertain how greatly consumers value the function of a continuous display clock, but that loss of such function may result in significant loss of consumer utility. 78 FR 36316, 36362. Consistent with this prior concern and with comments provided by AHAM, DOE has screened out ''automatic power-down'' as a technology option due to its impact on consumer utility.

b. Remaining Technologies

After reviewing each technology, DOE did not screen out the following technology options and considers them as design options in the engineering analysis:

(1) Lower-power display technologies
(2) Cooking sensors with no standby power requirement
(3) Improved power supply and control board options

AHAM stated that cooking and humidity sensors identified by DOE take longer to re-energize, pre-condition, and calibrate, and are not applicable for the on-demand operational requirements of microwave ovens. (AHAM, No. 6 at p. 5)

In the June 2013 Final Rule, DOE concluded that cooking sensors are a viable design option for reducing microwave oven standby power consumption. 78 FR 36316, 36331. Interviews with microwave oven manufacturers and cooking sensor manufacturers and DOE's own research at the time confirmed that cooking sensors that are able to energize in a period of time that is small (5–10 seconds) compared to the duration of the cooking cycle had already been successfully deployed in commercially available products with no reliability concerns, and little to no cost premiums and impact on consumer utility. *Id.* AHAM provided no more than a generalized statement as to the operation of such sensors and DOE has no indication that its prior consideration and determination of such sensors are no longer valid. As such, DOE included such cooking sensors in its analysis.

DOE also tentatively finds that all of the remaining technology options meet the other screening criteria (*i.e.,* practicable to manufacture, install, and service; do not result in adverse impacts on consumer utility, product availability, health, or safety; and are not a proprietary technology providing a unique pathway).

4. Product Classes

In general, when evaluating and establishing energy conservation standards, DOE divides the covered product into classes by (1) the type of energy used; (2) the capacity of the product; or (3) any other performance-related feature that affects energy efficiency and justifies different standard levels, considering factors such as consumer utility. (42 U.S.C. 42 U.S.C. 6295(q))

[7] DOE's Compliance Certification Database is available for review at *https://www.regulations.doe.gov/certification-data/products.html* (accessed on October 17, 2019).

a. Existing Product Classes

For microwave ovens, the current energy conservation standards specified in 10 CFR 430.32(j)(3) are based on two product classes determined according to the following performance-related features that provide utility to the consumer, in terms of locations where the product may be installed and availability of additional cooking functions: Intended installation (*i.e.,* countertop, built-in, or over-the-range) and presence of convection heating components. The two existing product classes are listed below.

(1) Microwave-Only Ovens and Countertop Convection Microwave Ovens
(2) Built-In and Over-the-Range Convection Microwave Ovens

b. Additional Product Classes

AHAM stated that there is no need to merge existing product classes or create additional product classes for microwave ovens currently. (AHAM, No. 6 at p. 3) DOE did not identify any additional product classes for microwave ovens based on (1) the type of energy used, (2) the capacity of the product, or (3) any other performance-related feature that affects energy efficiency and justifies different standard levels. Further, DOE did not identify any rationale to merge the existing product classes. Accordingly, DOE's analysis is based on the two existing product classes.

c. Summary

In summary, DOE assesses the product classes shown in the following list in its analysis.

(1) Microwave-Only Ovens and Countertop Convection Microwave Ovens
(2) Built-In and Over-the-Range Convection Microwave Ovens

C. Engineering Analysis

In the engineering analysis, DOE establishes the relationship between the manufacturer production cost (''MPC'') and improved microwave oven efficiency. There are two dimensions to consider in the engineering analysis; the selection of efficiency levels to analyze (*i.e.,* the ''efficiency analysis'') and the determination of product cost at each efficiency level (*i.e.,* the ''cost analysis''). In determining the performance of microwave ovens that use less power, DOE considers technologies and design option combinations not eliminated by the screening analysis. For each product class, DOE estimates the baseline manufacturer cost, as well as the incremental cost for the product at efficiency levels above the baseline. The output of the engineering analysis is a set of cost-efficiency ''curves'' that are used in downstream analyses.

DOE typically uses one of two approaches to develop energy efficiency levels for the Engineering Analysis: (1) Relying on observed efficiency levels in the market (*i.e.,* the efficiency-level approach), or (2) determining the incremental efficiency improvements associated with incorporating specific design options to a baseline model (*i.e.,* the design-option approach). Using the efficiency-level approach, the efficiency levels established for the analysis are determined based on the market distribution of existing products (in other words, based on the range of efficiencies and efficiency level ''clusters'' that already exist on the market). Using the design option approach, the efficiency levels established for the analysis are determined through detailed engineering calculations and/or computer simulations of the efficiency improvements from implementing specific design options that have been identified in the technology assessment. DOE may also rely on a combination of these two approaches. For example, the efficiency-level approach (based on actual products on the market) may be extended using the design option approach to interpolate and define ''gap-fill'' levels (to bridge large gaps between other identified efficiency levels) and/or to extrapolate to the max-tech level (the level that DOE determines is the maximum achievable efficiency level, particularly in cases where the max-tech level exceeds the maximum efficiency level currently available on the market).

For this proposed determination, DOE applied a combination of the efficiency-level approach and the design level approach. For microwave-only ovens and countertop convection microwave ovens (''Product Class 1''), the standby power consumption at each efficiency level were initially derived from review of the DOE Compliance Certification Database and comparison to the levels from the June 2013 Final Rule. 78 FR 36316, 36317. The baseline standby power level, EL 0, is equal to the current standard of 1.0 W. To develop EL 1, which is 0.84 W, DOE purchased and evaluated countertop microwave-only ovens with a more efficient power supply. DOE analyzed two representative units: One that just meets the current standard of 1.0 W and another that has a lower standby power consumption. The two units otherwise share similar design characteristics such as cooking mode power, cavity size and installation configuration (*i.e.* both were countertop microwave-only ovens). In testing, DOE measured each of the internal power supply units' no-load power consumption, which is the power consumption with all other components disconnected. The first representative unit that just meets DOE's current standards had a no-load power consumption of 0.3 W, while the second unit had a 0.14 W no-load power consumption. DOE estimated that the difference between these two units (*i.e.,* 0.16 W) is the direct consequence of implementing an improved power supply. DOE, therefore, subtracted this value from the current 1.0 W standard to produce an EL 1 at 0.84 W that represents a microwave oven with an upgraded internal power supply. For Product Class 1, DOE determined that this EL 1 is also the max-tech level. DOE had previously identified a max-tech efficiency level based on automatic power-down as the technology option in the June 2013 Final Rule, with a corresponding standby power consumption of 0.02 W. 78 FR 36316, 36325. In the analysis for this NOPD, however, this technology option was screened out for the reasons discussed in section IV.B.3.a of this document.

For the built-in and over-the-range convection microwave ovens product class (''Product Class 2''), the baseline standby power consumption used for the analysis at EL 0 is the current DOE standard of 2.2 W. This maximum allowable average standby power consumption is higher than that allowed for microwave-only ovens and countertop convection microwave ovens because, in the June 2013 Final Rule, DOE had concluded that built-in and over-the-range convection microwave ovens require a larger power supply to support additional features such as an exhaust fan, additional relays, and additional lights, and that the larger power supply contributes to a higher standby power consumption. 78 FR 36316, 36328. Nonetheless, because consumer utility of the microwave oven in standby mode is similar for both product classes, DOE expects that the available design options for reducing standby power consumption would be similar. From market data, DOE observed a large percentage of built-in and over-the-range convection microwave oven models at or below the 1.0 W level. Given the prevalence of such products, DOE expects that all products in Product Class 2 could meet the 1.0 W level by using the same improved power supply design as in EL 1 for Product Class 1. Even though EL 1 for Product Class 1 is at 0.84 W, DOE

expects the larger power supply needed for Product Class 2 microwave ovens would only allow these products to achieve 1.0 W using the same power supply design. Furthermore, similar to Product Class 1, the previous max-tech level that had been identified in the June 2013 Final Rule for built-in and over-the-range convection microwave ovens based on an automatic power-down feature was removed due to concerns over consumer utility. DOE, therefore, analyzed 1.0 W as the max-tech level for this product class (in this case, EL 2, because as discussed, DOE also evaluated a gap-fill level for Product Class 2 that it designated as EL 1).

For the gap-fill EL 1 in Product Class 2, DOE analyzed a standby power level at 1.16 W, which represents a built-in and over-the-range convection microwave oven with less efficient power supplies, albeit of the same type as analyzed at max-tech. DOE estimated the standby power consumption for this EL 1 by adding the difference in wattage between an efficient and inefficient power supply's no-load consumption previously determined for Product Class 1 (*i.e.,* 0.16 W) to the 1.0 W standby power consumption of the Product Class 2 max-tech level. DOE used this approach because the improvements needed to make the power supply more efficient would be nearly identical for both product classes. Since both Product Class 2, EL 2 and Product Class 1, EL 1 utilizes the same power supply efficiency improvements, removing the improvements results in the baseline power supply design of Product Class 1. DOE therefore determined that for Product Class 2, EL 1 standby levels can be readily achieved using the Product Class 1 baseline power supply.

For both product classes, DOE tested and tore down additional microwave ovens with standby power consumptions that are lower than the max-tech values established in this rulemaking. DOE was, however, unable to isolate further technology options that resulted in the improved standby power consumption of these models other than automatic power-down.

In summary, DOE analyzed the following efficiency levels for this NOPD:

TABLE IV–2—ANALYZED EFFICIENCY LEVELS FOR MICROWAVE-ONLY OVENS AND COUNTERTOP CONVECTION MICROWAVE OVENS

Efficiency level	Standby power level source	Standby power (W)
Baseline	Baseline (current standard)	1.00
1	Improved Power Supply (Max-Tech)	0.84

TABLE IV–3—ANALYZED EFFICIENCY LEVELS FOR BUILT-IN AND OVER-THE-RANGE CONVECTION MICROWAVE OVENS

Efficiency level	Standby power level source	Standby power (W)
Baseline	Baseline (current standard)	2.20
1	Standard Power Supply	1.16
2	Improved Power Supply (Max-Tech)	1.00

The cost analysis portion of the Engineering Analysis is conducted using one or a combination of cost approaches. The selection of cost approach depends on a suite of factors, including the availability and reliability of public information, characteristics of the regulated product, and availability and timeliness of purchasing the product on the market. The cost approaches are summarized as:

- *Physical teardowns:* Under this approach, DOE physically dismantles a commercially available product, component-by-component, to develop a detailed bill of materials (''BOM'') for the product.
- *Catalogue teardowns:* In lieu of physically deconstructing a product, DOE identifies each component using parts diagrams (available from manufacturer websites or appliance repair websites, for example) to develop the BOM for the product.
- *Price surveys:* If neither a physical nor catalogue teardown is feasible (for example, for tightly integrated products such as light-emitting diode (''LED'') bulbs, which are infeasible to disassemble and for which parts diagrams are unavailable) or cost-prohibitive and otherwise impractical (*e.g.* large commercial boilers), DOE conducts price surveys using publicly available pricing data published on major online retailer websites and/or by soliciting prices from distributors and other commercial channels.

In the present case, after establishing the efficiency levels, DOE estimated the MPC of attaining each efficiency level based on the technology options identified for that level (*i.e.,* physical tear downs). The MPC takes into account the costs for materials, labor, depreciation, and overhead. These values were developed based on product teardowns that generated BOMs for components and manufacturing processes which contribute directly to standby power consumptions. DOE uses these BOMs, along with information on material and component prices, costs for labor, depreciation, and overhead to derive the MPC. For this analysis, the primary component of interest was the control board and its associated power supply unit.

For microwave-only ovens and countertop convection microwave ovens, DOE calculated the difference in manufacturing cost between a standard and improved power supply from BOM analysis and found the cost difference to be $0.16.

For Product Class 2, DOE modeled EL 1 using the same power supply design and cost as in the baseline products for Product Class 1. The overall teardown costs of these power supplies were on the order of $0.70, and DOE estimated that these power supplies could be used with near-zero differential cost in Product Class 2, noting that the slightly larger power supply requirement of Product Class 2 would not result in a measurable cost increase. DOE therefore applied the same incremental manufacturing cost to Product Class 2, EL 1 as Product Class 1, EL 0 (*i.e.* $0). Similarly, DOE modeled EL 2 for Product Class 2 as utilizing the same efficiency improvements made to the baseline power supply of Product Class 1 and therefore applied the same incremental cost of $0.16.

TABLE IV–4—ANALYZED EFFICIENCY LEVELS AND INCREMENTAL COSTS FOR MICROWAVE-ONLY OVENS AND COUNTERTOP CONVECTION MICROWAVE OVENS

Efficiency level	Standby power level source	Standby power (W)	Incremental MPC (2019$)
Baseline	Baseline (current standard)	1.00	
1	Improved Power Supply (Max-Tech)	0.84	$ 0.16

TABLE IV–5—ANALYZED EFFICIENCY LEVELS AND INCREMENTAL COSTS FOR BUILT-IN AND OVER-THE-RANGE CONVECTION MICROWAVE OVENS

Efficiency level	Standby power level source	Standby power (W)	Incremental MPC ($2019)
Baseline	Baseline (current standard)	2.20	
1	Standard Power Supply	1.16	$ 0
2	Improved Power Supply (Max-Tech)	1.00	0.16

D. Energy Use Analysis

The purpose of the energy use analysis is to determine the annual energy consumption of microwave ovens at different efficiencies in representative U.S. single-family homes, multi-family residences, and manufactured homes, and to assess the energy savings potential of increased microwave oven efficiency. The energy use analysis estimates the range of energy use of microwave ovens in the field (*i.e.,* as they are actually used by consumers). The energy use analysis provides the basis for other analyses DOE performed, particularly assessments of the energy savings and the savings in consumer operating costs that could result from adoption of amended or new standards.

For this NOPD, DOE used the same methodology as that described in chapter 7 of the June 2013 Final Rule technical support document (''TSD'').[8] DOE primarily used data from the Energy Information Administration (''EIA'')'s *Residential Energy Consumption Survey* (''*RECS*''). *RECS* is a national sample survey of housing units that collects statistical information on the consumption of and expenditures for energy in housing units, along with data on energy-related characteristics of the housing units and occupants. *RECS* was constructed by EIA to be a national representation of the household population in the United States. For the June 2013 Final Rule, DOE used *RECS2009*.[9] For this NOPD, DOE updated the household sample to *RECS2015. RECS2015* includes data specific to microwave oven use frequency, whereas *RECS2009* frequency usage was estimated from overall numbers of cooked meals.

For each household, *RECS2015* provides information on the frequency of microwave oven usage per week. DOE calculated the *RECS* usage factor for each household in the sample by multiplying the frequency of use by 52 weeks per year and dividing by the weighted-average usage based on the entire *RECS* sample. The weighted-average usage was calculated by summing the average microwave use frequency per week as reported in *RECS* and multiplying by 52 weeks per year and by the housing record weight before dividing by the sum of housing record weights for the housing sample.

DOE determined the annual energy consumption of the standby mode and off mode of microwave ovens by estimating the number of hours of operation throughout the year and assuming that the unit would be in standby mode and off mode the rest of the time. For the June 2013 Final Rule, DOE determined the average hours of operation for microwaves to be 44.9 hours per year. DOE subtracted the number of calculated operating hours from the total number of hours in a year and multiplied that difference by the standby mode power usage at each efficiency level to determine annual standby mode and off mode energy consumption.

CA IOUs stated that microwave ovens spend approximately 53 hours annually in active mode. (CA IOUs, No. 7 at p. 3) DOE reviewed CA IOU's 2014 study[10] and found the sample size to be relatively small at 122 households and geographically limited, as compared to *RECS.* DOE acknowledges the benefit of using field-metered studies for energy use; however, DOE concluded that a larger study with greater geographic area would be helpful before amending the active hours used.

Chapter 7 of the June 2013 Final Rule TSD provides details on DOE's energy use analysis for microwave ovens.

E. National Energy Savings

For the present analysis, DOE projected the energy savings, over the lifetime of microwave ovens sold from 2024 through 2053. DOE evaluates the effects of new or amended standards by comparing a case without such standards with standards-case projections. The no-new-standards case characterizes energy use for each microwave oven class in the absence of new or amended energy conservation standards. For this projection, DOE considers historical trends in efficiency and various forces that are likely to affect the mix of efficiencies over time. DOE compares the no-new-standards case with projections characterizing the market for each microwave oven class if DOE adopted new or amended standards at specific energy efficiency levels (*i.e.,* the standards cases) for that class. For the standards cases, DOE considers how a given standard would likely affect the market shares of microwave oven with efficiencies greater than the standard.

[8] U.S. Department of Energy (DOE), 2013–06–17 Energy Conservation Program: Energy Conservation Standards for Standby Mode and Off Mode for Microwave Ovens; Final Rule. *https://www.regulations.gov/document?D=EERE-2011-BT-STD-0048-0027.*

[9] U.S. Department of Energy (DOE), 2013–06–17 Energy Conservation Program: Energy Conservation Standards for Standby Mode and Off Mode for Microwave Ovens; Final Rule. *https://www.regulations.gov/document?D=EERE-2011-BT-STD-0048-0027.*

[10] CALMAC Study ID: SCE0360.01. 2014. *Literature Review of Miscellaneous Energy Loads (MELs) in Residential Buildings. https://www.calmac.org/publications/MEL_Literature_Review_6_10_14.pdf.*

For the June 2013 Final Rule, DOE used a methodology consistent with the national impact analysis to calculate the energy savings from each EL.

1. Product Efficiency Trends

A key component of the national energy savings analysis is the trend in energy efficiency projected for the no-new-standards case and each of the standards cases. To accurately estimate the share of consumers that would be affected by a potential energy conservation standard at a particular efficiency level, DOE's analysis considered the projected distribution (market shares) of product efficiencies under the no-new-standards case (*i.e.,* the case without amended or new energy conservation standards).

To estimate the energy efficiency distribution for microwave oven standby power, DOE used the same methodology as presented in the June 2013 Final Rule TSD and updated the model counts from the Compliance Certification Management System. The estimated market shares for the no-new-standards case for microwave ovens are shown in Table IV–6. See chapter 8 of the June 2013 Final Rule TSD for further information on the derivation of the efficiency distributions.

TABLE IV–6—EFFICIENCY DISTRIBUTIONS: NO-NEW-STANDARDS-CASE MARKET SHARES IN 2019

Microwave-only and countertop convection microwave ovens			Built-in and over-the-range convection microwave ovens		
Standard level	Standby power (W)	Market share (%)	Standard level	Standby power (W)	Market share (%)
Baseline	1.00	78.38	Baseline	2.20	81.25
1	0.84	21.62	1	1.16	0.00
			2	1.00	18.75

For the standards cases, DOE used a ''roll-up'' scenario to establish the shipment-weighted efficiency for the year that standards are assumed to become effective. In this scenario, the market shares of products in the no-new-standards case that do not meet the standard under consideration would ''roll up'' to meet the new standard level, and the market share of products above the standard would remain unchanged.

2. National Energy Savings

The NES analysis involves a comparison of national energy consumption of the considered products between each potential standards case and the case with no new or amended energy conservation standards. DOE calculated the national energy consumption by multiplying the number of units (stock) of each product (by vintage or age) by the unit energy consumption (also by vintage). DOE calculated annual NES based on the difference in national energy consumption for the no-new-standards case and for each higher efficiency standard case. DOE estimated energy consumption and savings based on site energy and converted the electricity consumption and savings to primary energy (*i.e.,* the energy consumed by power plants to generate site electricity) using annual conversion factors derived from the U.S. Energy Information Administration's *Annual Energy Outlook 2019.* [11] Cumulative energy savings are the sum of the NES for each year over the timeframe of the analysis.

[11] U.S. Energy Information Administration, *Annual Energy Outlook 2019. https://www.eia.gov/outlooks/archive/aeo19/.*

F. Life-Cycle Cost and Payback Period Analysis

In evaluating cost-effectiveness, DOE typically conducts life-cycle cost (''LCC'') and payback period (''PBP'') analyses to evaluate the economic impacts on individual consumers of potential energy conservation standards for microwave ovens. The effect of new or amended energy conservation standards on individual consumers usually involves a reduction in operating cost and an increase in purchase cost. DOE uses the following two metrics to measure consumer impacts:

- The LCC is the total consumer expense of an appliance or product over the life of that product, consisting of total installed cost (manufacturer selling price, distribution chain markups, sales tax, and installation costs) plus operating costs (expenses for energy use, maintenance, and repair). To compute the operating costs, DOE discounts future operating costs to the time of purchase and sums them over the lifetime of the product.
- The PBP is the estimated amount of time (in years) it takes consumers to recover the increased purchase cost (including installation) of a more-efficient product through lower operating costs. DOE calculates the PBP by dividing the change in purchase cost at higher efficiency levels by the change in annual operating cost for the year that amended or new standards are assumed to take effect.

For any given efficiency level, DOE measures the change in LCC relative to the LCC in the no-new-standards case, which reflects the estimated efficiency distribution of microwave ovens in the absence of new or amended energy conservation standards. In contrast, the PBP for a given efficiency level is measured relative to the baseline product.

One input to the LCC analysis is the repair and maintenance cost. AHAM stated that LED and liquid crystal display (''LCD'') technologies are more expensive and could result in higher repair and maintenance costs for the consumer. (AHAM, No. 6 at p. 6) AHAM also stated that LED and LCD displays have lower reliability compared to vacuum fluorescent displays (''VFDs''), especially in high temperature over-the-range conditions. (AHAM, No. 6 at p. 5) GE Appliances stated that there are no existing over-the-range microwave ovens using LCD technology due to extreme temperature conditions. They also indicated that previous GE Appliances over-the-range microwave ovens with an LCD screen are no longer being produced due to quality issues related to LCD screen heat exposure. (GE Appliances, No. 5 at p. 2)

As discussed in section V of this document, DOE has initially determined that the amended energy conservation standards for microwave ovens would not result in significant energy savings as required by EPCA. As such, DOE did not conduct the LCC and PBP analyses. Therefore, DOE considers the comments from AHAM and GE Appliances regarding the repair costs related to LED and LCD technologies moot.

V. Conclusions

As required by EPCA, this NOPD analyzes whether the Secretary should issue a notification of determination not to amend standards for microwave ovens based on DOE's consideration of

whether amended standards would be technologically feasible, result in significant conservation of energy, and be cost-effective. (42 U.S.C. 6295(m)(1)(A) and 42 U.S.C. 6295(n)(2)) Any new or amended standards issued by the Secretary would be required to comply with the economic justification and other requirements of 42 U.S.C. 6295(o).

A. Technological Feasibility

EPCA mandates that DOE consider whether amended energy conservation standards for microwave ovens would be technologically feasible. (42 U.S.C. 6295(m)(1)(A) and 42 U.S.C. 6295(n)(2)(B)) DOE has tentatively determined that there are technology options that would improve the efficiency of microwave ovens. These technology options are being used in commercially available microwave ovens and therefore are technologically feasible. (See section IV.B.2 of this document for further information.) Hence, DOE has tentatively determined that amended energy conservation standards for microwave ovens are technologically feasible.

B. Significant Conservation of Energy

EPCA also mandates that DOE consider whether amended energy conservation standards for microwave oven standby power would result in significant conservation of energy. (42 U.S.C. 6295(m)(1)(A) and 42 U.S.C. 6295(n)(2)(A))

To estimate the energy savings attributable to potential amended standards for microwave ovens, DOE compared their energy consumption under the no-new-standards case to their anticipated energy consumption under each potential standard level. The savings are measured over the entire lifetime of products purchased in the 30-year period that begins in the year of anticipated compliance with amended standards (2024–2053).

DOE analyzed the energy savings of two potential standards levels (''PSLs'') for microwave ovens (see Table V–1). The PSLs were derived from the energy efficiency levels for microwave ovens that DOE developed in engineering analysis. For this NOPD, PSL 1 represents the max-tech level for microwave-only ovens and countertop convection microwave ovens and an efficiency level above the baseline efficiency level for built-in and over-the-range convection microwave ovens. PSL 2 represents the max-tech level for standby power for both product classes.

TABLE V–1—POTENTIAL STANDARD LEVELS FOR MICROWAVE OVEN STANDBY POWER

PSL	Standby power (W)	
	Product class 1: microwave-only and countertop convection microwave ovens	Product class 2: built-in and over-the-range convection microwave ovens
1	0.84	1.16
2	0.84	1.00

Table V–2 presents DOE's projections of the NES for each potential standard level considered for microwave ovens.

TABLE V–2—CUMULATIVE NATIONAL ENERGY SAVINGS FOR MICROWAVE OVENS

	Potential standard level	
	1	2
	Quads	
Site energy savings ..	0.01	0.01
Primary energy	0.03	0.03
FFC energy	0.03	0.03

TABLE V–3—PERCENTAGE REDUCTION IN ENERGY USE

Percent of energy reduction	Potential standards level	
	1 (%)	2 (%)
Site energy savings ..	7.9	8.0

DOE estimates that amended standards for microwave oven standby power would result in energy savings of 0.01 quads at PSL 2, the max-tech level, which is under the 0.3-quads threshold currently provided in Section 6(b)(3) of the Process Rule. Additionally, DOE estimates that the percentage reduction in standby power energy use at PSL 2, the max-tech level, is 8 percent over the 30-year analysis period, which is under the 10-percent threshold currently provided in Section 6(b)(4) of the Process Rule. (See results in Table V–3). Therefore, DOE has tentatively determined that amended energy conservation standards for microwave oven standby power would not result in significant conservation of energy.

C. Cost-Effectiveness

DOE did not conduct an evaluation of the cost-effectiveness of amended standards for microwave ovens. As stated, DOE has tentatively determined that amended standards would not result in significant energy savings as required by EPCA. Absent the necessary energy savings, DOE is prohibited from establishing amended standards regardless of the cost-effectiveness of such standards. As such, DOE did not consider further the cost-effectiveness of amended standards.

D. Summary

Based on DOE's tentative determination that amended energy conservation standards for microwave oven standby power would not result in significant conservation of energy, DOE has tentatively determined that energy conservation standards for microwave oven standby power do not need to be amended. DOE will consider all comments received on this proposed determination in issuing any final determination.

VI. Procedural Issues and Regulatory Review

A. Review Under Executive Order 12866

This proposed determination has been determined to be not significant for purposes of Executive Order (''E.O.'') 12866, ''Regulatory Planning and Review,'' 58 FR 51735 (Oct. 4, 1993). As a result, the Office of Management and Budget (''OMB'') did not review this proposed determination.

B. Review Under the Regulatory Flexibility Act

The Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*) requires preparation of an initial regulatory flexibility analysis (''IRFA'') for any rule that by law must be proposed for public comment, unless the agency certifies that the rule, if promulgated, will not have a significant economic impact on a substantial number of small entities. As required by E.O. 13272, ''Proper Consideration of Small Entities in Agency Rulemaking,'' 67 FR 53461 (Aug. 16, 2002), DOE published procedures and policies on February 19, 2003, to ensure that the potential impacts of its rules on small entities are properly considered during the rulemaking process. 68 FR 7990. DOE has made its procedures and policies available on the Office of the General Counsel's website (*https://energy.gov/gc/office-general-counsel*).

DOE reviewed this proposed determination under the provisions of the Regulatory Flexibility Act and the policies and procedures published on February 19, 2003. Because DOE is proposing not to amend standards for microwave ovens, if adopted, the determination would not amend any energy conservation standards. On the basis of the foregoing, DOE certifies that

the proposed determination, if adopted, would have no significant economic impact on a substantial number of small entities. Accordingly, DOE has not prepared an IRFA for this proposed determination. DOE will transmit this certification and supporting statement of factual basis to the Chief Counsel for Advocacy of the Small Business Administration for review under 5 U.S.C. 605(b).

C. Review Under the Paperwork Reduction Act

Manufacturers of microwave ovens must certify to DOE that their products comply with any applicable energy conservation standards. To certify compliance, manufacturers must first obtain test data for their products according to the DOE test procedures, including any amendments adopted for those test procedures. DOE has established regulations for the certification and recordkeeping requirements for all covered consumer products and commercial equipment, including microwave ovens. (See generally 10 CFR part 429.) The collection-of-information requirement for the certification and recordkeeping is subject to review and approval by OMB under the Paperwork Reduction Act (''PRA''). This requirement has been approved by OMB under OMB control number 1910–1400. Public reporting burden for the certification is estimated to average 35 hours 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.

Notwithstanding any other provision of the law, no person is required to respond to, nor shall any person be subject to a penalty for failure to comply with, a collection of information subject to the requirements of the PRA, unless that collection of information displays a currently valid OMB Control Number.

D. Review Under the National Environmental Policy Act of 1969

DOE is analyzing this proposed action in accordance with the National Environmental Policy Act of 1969 (''NEPA'') and DOE's NEPA implementing regulations (10 CFR part 1021). DOE's regulations include a categorical exclusion for actions which are interpretations or rulings with respect to existing regulations. 10 CFR part 1021, subpart D, appendix A4. DOE anticipates that this action qualifies for categorical exclusion A4 because it is an interpretation or ruling regarding an existing regulation and otherwise meets the requirements for application of a categorical exclusion. See 10 CFR 1021.410. DOE will complete its NEPA review before issuing the final action.

E. Review Under Executive Order 13132

E.O. 13132, ''Federalism,'' 64 FR 43255 (Aug. 10, 1999), imposes certain requirements on Federal agencies formulating and implementing policies or regulations that preempt State law or that have Federalism implications. The Executive Order requires agencies to examine the constitutional and statutory authority supporting any action that would limit the policymaking discretion of the States and to carefully assess the necessity for such actions. The Executive Order also requires agencies to have an accountable process to ensure meaningful and timely input by State and local officials in the development of regulatory policies that have Federalism implications. On March 14, 2000, DOE published a statement of policy describing the intergovernmental consultation process it will follow in the development of such regulations. 65 FR 13735. DOE has examined this proposed determination and has tentatively determined that it 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. EPCA governs and prescribes Federal preemption of State regulations as to energy conservation for the products that are the subject of this proposed rule. States can petition DOE for exemption from such preemption to the extent, and based on criteria, set forth in EPCA. (42 U.S.C. 6297) Therefore, no further action is required by E.O. 13132.

F. Review Under Executive Order 12988

With respect to the review of existing regulations and the promulgation of new regulations, section 3(a) of E.O. 12988, ''Civil Justice Reform,'' imposes on Federal agencies the general duty to adhere to the following requirements: (1) Eliminate drafting errors and ambiguity, (2) write regulations to minimize litigation, (3) provide a clear legal standard for affected conduct rather than a general standard, and (4) promote simplification and burden reduction. 61 FR 4729 (Feb. 7, 1996). Regarding the review required by section 3(a), section 3(b) of E.O. 12988 specifically requires that Executive agencies make every reasonable effort to ensure that the regulation: (1) Clearly specifies the preemptive effect, if any, (2) clearly specifies any effect on existing Federal law or regulation, (3) provides a clear legal standard for affected conduct while promoting simplification and burden reduction, (4) specifies the retroactive effect, if any, (5) adequately defines key terms, and (6) addresses other important issues affecting clarity and general draftsmanship under any guidelines issued by the Attorney General. Section 3(c) of Executive Order 12988 requires Executive agencies to review regulations in light of applicable standards in section 3(a) and section 3(b) to determine whether they are met or it is unreasonable to meet one or more of them. DOE has completed the required review and determined that, to the extent permitted by law, this proposed determination meets the relevant standards of E.O. 12988.

G. Review Under the Unfunded Mandates Reform Act of 1995

Title II of the Unfunded Mandates Reform Act of 1995 (''UMRA'') requires each Federal agency to assess the effects of Federal regulatory actions on State, local, and Tribal governments and the private sector. Public Law 104–4, sec. 201 (codified at 2 U.S.C. 1531). For a proposed regulatory action likely to result in a rule that may cause the expenditure by State, local, and Tribal governments, in the aggregate, or by the private sector of $100 million or more in any one year (adjusted annually for inflation), section 202 of UMRA requires a Federal agency to publish a written statement that estimates the resulting costs, benefits, and other effects on the national economy. (2 U.S.C. 1532(a), (b)) The UMRA also requires a Federal agency to develop an effective process to permit timely input by elected officers of State, local, and Tribal governments on a proposed ''significant intergovernmental mandate,'' and requires an agency plan for giving notice and opportunity for timely input to potentially affected small governments before establishing any requirements that might significantly or uniquely affect them. On March 18, 1997, DOE published a statement of policy on its process for intergovernmental consultation under UMRA. 62 FR 12820. DOE's policy statement is also available at *https://energy.gov/sites/prod/files/gcprod/documents/umra_97.pdf.*

This proposed determination does not contain a Federal intergovernmental mandate, nor is it expected to require expenditures of $100 million or more in any one year by State, local, and Tribal governments, in the aggregate, or by the private sector. As a result, the analytical requirements of UMRA do not apply.

H. Review Under the Treasury and General Government Appropriations Act, 1999

Section 654 of the Treasury and General Government Appropriations Act, 1999 (Pub. L. 105–277) requires Federal agencies to issue a Family Policymaking Assessment for any rule that may affect family well-being. This proposed determination would not have any impact on the autonomy or integrity of the family as an institution. Accordingly, DOE has concluded that it is not necessary to prepare a Family Policymaking Assessment.

I. Review Under Executive Order 12630

Pursuant to E.O. 12630, ''Governmental Actions and Interference with Constitutionally Protected Property Rights,'' 53 FR 8859 (Mar. 15, 1988), DOE has determined that this proposed determination would not result in any takings that might require compensation under the Fifth Amendment to the U.S. Constitution.

J. Review Under the Treasury and General Government Appropriations Act, 2001

Section 515 of the Treasury and General Government Appropriations Act, 2001 (44 U.S.C. 3516 note) provides for Federal agencies to review most disseminations of information to the public under information quality guidelines established by each agency pursuant to general guidelines issued by OMB. OMB's guidelines were published at 67 FR 8452 (Feb. 22, 2002), and DOE's guidelines were published at 67 FR 62446 (Oct. 7, 2002). Pursuant to OMB Memorandum M–19–15, Improving Implementation of the Information Quality Act (April 24, 2019), DOE published updated guidelines which are available at *https://www.energy.gov/sites/prod/files/2019/12/f70/DOE%20Final%20Updated%20IQA%20Guidelines%20Dec%202019.pdf.* DOE has reviewed this NOPD under the OMB and DOE guidelines and has concluded that it is consistent with applicable policies in those guidelines.

K. Review Under Executive Order 13211

E.O. 13211, ''Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use,'' 66 FR 28355 (May 22, 2001), requires Federal agencies to prepare and submit to the Office of Information and Regulatory Affairs (''OIRA'') at OMB, a Statement of Energy Effects for any proposed significant energy action. A ''significant energy action'' is defined as any action by an agency that promulgates or is expected to lead to promulgation of a final rule, and that (1) is a significant regulatory action under Executive Order 12866, or any successor Executive Order; and (2) is likely to have a significant adverse effect on the supply, distribution, or use of energy, or (3) is designated by the Administrator of OIRA as a significant energy action. For any proposed significant energy action, the agency must give a detailed statement of any adverse effects on energy supply, distribution, or use should the proposal be implemented, and of reasonable alternatives to the action and their expected benefits on energy supply, distribution, and use.

Because this proposed determination does not propose to amend energy conservation standards for microwave ovens, it is not a significant regulatory action, nor has it been designated as such by the Administrator at OIRA. Accordingly, DOE has not prepared a Statement of Energy Effects.

L. Review Under the Information Quality Bulletin for Peer Review

On December 16, 2004, OMB, in consultation with the Office of Science and Technology Policy (''OSTP''), issued its Final Information Quality Bulletin for Peer Review (''the Bulletin''). 70 FR 2664 (Jan. 14, 2005). The Bulletin establishes that certain scientific information shall be peer reviewed by qualified specialists before it is disseminated by the Federal Government, including influential scientific information related to agency regulatory actions. The purpose of the bulletin is to enhance the quality and credibility of the Government's scientific information. Under the Bulletin, the energy conservation standards rulemaking analyses are ''influential scientific information,'' which the Bulletin defines as ''scientific information the agency reasonably can determine will have, or does have, a clear and substantial impact on important public policies or private sector decisions.'' *Id.* at 70 FR 2667.

In response to OMB's Bulletin, DOE conducted formal peer reviews of the energy conservation standards development process and the analyses that are typically used and has prepared a Peer Review report pertaining to the energy conservation standards rulemaking analyses.[12] Generation of this report involved a rigorous, formal, and documented evaluation using objective criteria and qualified and independent reviewers to make a judgment as to the technical/scientific/business merit, the actual or anticipated results, and the productivity and management effectiveness of programs and/or projects. DOE has determined that the peer-reviewed analytical process continues to reflect current practice, and the Department followed that process for considering amended energy conservation standards in the case of the present action.

[12] ''Energy Conservation Standards Rulemaking Peer Review Report.'' 2007. Available at *https://energy.gov/eere/buildings/downloads/energy-conservation-standards-rulemaking-peer-review-report-0.*

VII. Public Participation

A. Participation in the Webinar

The time and date of the webinar are listed in the **DATES** section at the beginning of this document. If no participants register for the webinar then it will be cancelled. Webinar registration information, participant instructions, and information about the capabilities available to webinar participants will be published on DOE's website: *https://www1.eere.energy.gov/buildings/appliance_standards/standards.aspx?productid=33.* Participants are responsible for ensuring their systems are compatible with the webinar software.

B. Procedure for Submitting Prepared General Statements for Distribution

Any person who has an interest in the topics addressed in this document, or who is representative of a group or class of persons that has an interest in these issues, may request an opportunity to make an oral presentation at the webinar. Requests may be sent by email to the Appliance and Equipment Standards Program, U.S. Department of Energy, Building Technologies Office, Mailstop EE–5B, 1000 Independence Avenue SW, Washington, DC 20585–0121, or *ApplianceStandardsQuestions@ee.doe.gov.* Persons who wish to speak should include with their request a computer file in WordPerfect, Microsoft Word, PDF, or text (ASCII) file format that briefly describes the nature of their interest in this rulemaking and the topics they wish to discuss. Such persons should also provide a daytime telephone number where they can be reached.

Persons requesting to speak should briefly describe the nature of their interest in this rulemaking and provide a telephone number for contact. DOE requests persons selected to make an oral presentation to submit an advance copy of their statements at least two weeks before the webinar. At its discretion, DOE may permit persons who cannot supply an advance copy of their statement to participate, if those

persons have made advance alternative arrangements with the Building Technologies Office. As necessary, requests to give an oral presentation should ask for such alternative arrangements.

C. Conduct of the Webinar

DOE will designate a DOE official to preside at the webinar/public meeting and may also use a professional facilitator to aid discussion. The meeting will not be a judicial or evidentiary-type public hearing, but DOE will conduct it in accordance with section 336 of EPCA (42 U.S.C. 6306). A court reporter will be present to record the proceedings and prepare a transcript. DOE reserves the right to schedule the order of presentations and to establish the procedures governing the conduct of the webinar/public meeting. There shall not be discussion of proprietary information, costs or prices, market share, or other commercial matters regulated by U.S. anti-trust laws. After the webinar/public meeting and until the end of the comment period, interested parties may submit further comments on the proceedings and any aspect of the rulemaking.

The webinar/public meeting will be conducted in an informal, conference style. DOE will present summaries of comments received before the webinar/public meeting, allow time for prepared general statements by participants, and encourage all interested parties to share their views on issues affecting this rulemaking. Each participant will be allowed to make a general statement (within time limits determined by DOE), before the discussion of specific topics. DOE will permit, as time permits, other participants to comment briefly on any general statements.

At the end of all prepared statements on a topic, DOE will permit participants to clarify their statements briefly and comment on statements made by others. Participants should be prepared to answer questions by DOE and by other participants concerning these issues. DOE representatives may also ask questions of participants concerning other matters relevant to this rulemaking. The official conducting the webinar/public meeting will accept additional comments or questions from those attending, as time permits. The presiding official will announce any further procedural rules or modification of the above procedures that may be needed for the proper conduct of the webinar/public meeting.

A transcript of the webinar/public meeting will be included in the docket, which can be viewed as described in the *Docket* section at the beginning of this document. In addition, any person may buy a copy of the transcript from the transcribing reporter.

D. Submission of Comments

DOE will accept comments, data, and information regarding this proposed determination no later than the date provided in the **DATES** section at the beginning of this proposed determination. Interested parties may submit comments, data, and other information using any of the methods described in the **ADDRESSES** section at the beginning of this document.

Submitting comments via https://www.regulations.gov. The *https://www.regulations.gov* web page will require you to provide your name and contact information. Your contact information will be viewable to DOE Building Technologies staff only. Your contact information will not be publicly viewable except for your first and last names, organization name (if any), and submitter representative name (if any). If your comment is not processed properly because of technical difficulties, DOE will use this information to contact you. If DOE cannot read your comment due to technical difficulties and cannot contact you for clarification, DOE may not be able to consider your comment.

However, your contact information will be publicly viewable if you include it in the comment itself or in any documents attached to your comment. Any information that you do not want to be publicly viewable should not be included in your comment, nor in any document attached to your comment. Otherwise, persons viewing comments will see only first and last names, organization names, correspondence containing comments, and any documents submitted with the comments.

Do not submit to *https://www.regulations.gov* information for which disclosure is restricted by statute, such as trade secrets and commercial or financial information (hereinafter referred to as Confidential Business Information (''CBI'')). Comments submitted through *https://www.regulations.gov* cannot be claimed as CBI. Comments received through the website will waive any CBI claims for the information submitted. For information on submitting CBI, see the Confidential Business Information section.

DOE processes submissions made through *https://www.regulations.gov* before posting. Normally, comments will be posted within a few days of being submitted. However, if large volumes of comments are being processed simultaneously, your comment may not be viewable for up to several weeks. Please keep the comment tracking number that *https://www.regulations.gov* provides after you have successfully uploaded your comment.

Submitting comments via email. Comments and documents submitted via email also will be posted to *https://www.regulations.gov.* If you do not want your personal contact information to be publicly viewable, do not include it in your comment or any accompanying documents. Instead, provide your contact information in a cover letter. Include your first and last names, email address, telephone number, and optional mailing address. With this instruction followed, the cover letter will not be publicly viewable as long as it does not include any comments.

Include contact information each time you submit comments, data, documents, and other information to DOE. No faxes will be accepted.

Comments, data, and other information submitted to DOE electronically should be provided in PDF (preferred), Microsoft Word or Excel, WordPerfect, or text (ASCII) file format. Provide documents that are not secured, that are written in English, and that are free of any defects or viruses. Documents should not contain special characters or any form of encryption and, if possible, they should carry the electronic signature of the author.

Campaign form letters. Please submit campaign form letters by the originating organization in batches of between 50 to 500 form letters per PDF or as one form letter with a list of supporters' names compiled into one or more PDFs. This reduces comment processing and posting time.

Confidential Business Information. Pursuant to 10 CFR 1004.11, any person submitting information that he or she believes to be confidential and exempt by law from public disclosure should submit via email, postal mail, or hand delivery/courier two well-marked copies: one copy of the document marked ''confidential'' including all the information believed to be confidential, and one copy of the document marked ''non-confidential'' with the information believed to be confidential deleted. Submit these documents via email. DOE will make its own determination about the confidential status of the information and treat it according to its determination.

It is DOE's policy that all comments may be included in the public docket, without change and as received, including any personal information

provided in the comments (except information deemed to be exempt from public disclosure).

E. Issues on Which DOE Seeks Comment

DOE welcomes comments and views on any aspect of this proposal from all interested parties.

VIII. Approval of the Office of the Secretary

The Secretary of Energy has approved publication of this notification of proposed determination.

Signing Authority

This document of the Department of Energy was signed on August 6, 2021, by Kelly Speakes-Backman, Principal Deputy Assistant Secretary and Acting Assistant Secretary for Energy Efficiency and Renewable Energy, pursuant to delegated authority from the Secretary of Energy. That document with the original signature and date is maintained by DOE. For administrative purposes only, and in compliance with requirements of the Office of the Federal Register, the undersigned DOE Federal Register Liaison Officer has been authorized to sign and submit the document in electronic format for publication, as an official document of the Department of Energy. This administrative process in no way alters the legal effect of this document upon publication in the **Federal Register**.

Signed in Washington, DC, on August 6, 2021.

Treena V. Garrett,

Federal Register Liaison Officer, U.S. Department of Energy.

[FR Doc. 2021–17123 Filed 8–11–21; 8:45 am]

BILLING CODE 6450–01–P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA–2021–0658; Project Identifier MCAI–2020–01582–T]

RIN 2120–AA64

Airworthiness Directives; 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 Bombardier, Inc., Model BD–100–1A10 airplanes. This proposed AD was prompted by a discovery that a lockwire may not have been installed on the side stay actuator pin nut of the main landing gear (MLG). This proposed AD would require inspecting the left-hand and right-hand MLG side stay actuator assembly pin nut for the presence of a lockwire, and installing a lockwire if necessary. 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 September 27, 2021.

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 *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.

For service information identified in this NPRM, contact Bombardier, Inc., 200 Côte-Vertu Road West, Dorval, Québec H4S 2A3, Canada; North America toll-free telephone 1–866–538–1247 or direct-dial telephone 1–514–855–2999; email *ac.yul@aero.bombardier.com;* internet *https://www.bombardier.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.

Examining the AD Docket

You may examine the AD docket at *https://www.regulations.gov* by searching for and locating Docket No. FAA–2021–0658; 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, any comments received, and other information. The street address for Docket Operations is listed above.

FOR FURTHER INFORMATION CONTACT: Elizabeth Dowling, Aerospace Engineer, Mechanical Systems and Administrative Services Section, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516–228–7300; fax 516–794–5531; 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–2021–0658; Project Identifier MCAI–2020–01582–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 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 *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 Elizabeth Dowling, Aerospace Engineer, Mechanical Systems and Administrative Services Section, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516–228–7300; fax 516–794–5531; 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 Civil Aviation (TCCA), which is the aviation authority for Canada, has issued TCCA AD CF–2020–52, dated November 30, 2020 (also referred to after this as the Mandatory