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DEPARTMENT OF ENERGY

10 CFR Part 430

[EERE-2021-BT-STD-0003]

RIN 1904–AF13

Energy Conservation Program for Appliance Standards: Procedures, Interpretations, and Policies for Consideration in New or Revised Energy Conservation Standards and Test Procedures for Consumer Products and Commercial/Industrial Equipment

AGENCY: Office of Energy Efficiency and Renewable Energy (EERE), Department of Energy.

ACTION: Notice of proposed rulemaking and request for comment.

SUMMARY: The U.S. Department of Energy (“DOE” or the “Department”) proposed major revisions to the Department’s “Procedures, Interpretations, and Policies for Consideration of New or Revised Energy Conservation Standards and Test Procedures for Consumer Products and Certain Commercial/Industrial Equipment” (“Process Rule”) in a notice of proposed rulemaking that was published on April 12, 2021. DOE accepted comments on those proposed revisions through May 27, 2021. In this document, DOE proposes additional revisions to the Process Rule and requests comment on the proposals and any potential alternatives. These additional proposed revisions are consistent with current DOE practice and would remove unnecessary

obstacles to DOE’s ability to meet its statutory obligations under the Energy Policy and Conservation Act (“EPCA”).

DATES: *Comments:* DOE will accept comments, data, and information regarding all aspects of this notice of proposed rulemaking on or before **[INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE *FEDERAL REGISTER*]**. DOE will hold a webinar on Tuesday, August 10, 2021 from 11:00 a.m. to 4:00 p.m. See section V, “Public Participation,” for webinar registration information, participant instructions, and information about the capabilities available to webinar participants.

ADDRESSES: Interested persons are encouraged to submit comments using the Federal eRulemaking Portal at <https://www.regulations.gov/docket/EERE-2021-BT-STD-0003>. Follow the instructions for submitting comments. Alternatively, interested persons may submit comments by email to the following address: processrule2021STD0003@ee.doe.gov. Include “2nd 2021 Process Rule NOPR” and docket number EERE-2021-BTD-STD-0003 and/or RIN number 1904-AF13 in the subject line of the message. Submit electronic comments in WordPerfect, Microsoft Word, PDF, or ASCII file format, and avoid the use of special characters or any form of encryption.

Although DOE has routinely accepted public comment submissions through a variety of mechanisms, including postal mail and hand delivery/courier, the Department has found it necessary to make temporary modifications to the comment submission process in light of the ongoing coronavirus disease 2019 (“COVID-19”) pandemic. DOE is currently accepting only

electronic submissions at this time. 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.

No telefacsimiles (faxes) will be accepted. For detailed instructions on submitting comments and additional information on the rulemaking process, see section V (Public Participation) of this document.

Docket: The docket for this rulemaking, which includes *Federal Register* notices, 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. This docket also contains all comments and rulemaking documents associated with the notice of proposed rulemaking that was published on April 12, 2021. However, not all documents listed in the index may be publicly available, such as information that is exempt from public disclosure.

The docket webpage can be found at:

<https://www.regulations.gov/docket/EERE-2021-BT-STD-0003>. The docket webpage contains instructions on how to access all documents, including public comments, in the docket.

FOR FURTHER INFORMATION CONTACT:

Mr. John Cymbalsky, 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*.

Mr. Pete Cochran, U.S. Department of Energy, Office of the General Counsel, GC-33, 1000 Independence Avenue, SW., Washington, DC, 20585-0121. Telephone: (202) 586-9496. E-mail: *Peter.Cochran@hq.doe.gov*.

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I. Summary of Proposal

On February 14, 2020, the United States Department of Energy (“DOE” or “the Department”) published a final rule (“February 2020 Final Rule”) in the *Federal Register* that made significant revisions to its “Procedures, Interpretations, and Policies for Consideration of New or Revised Energy Conservation Standards and Test Procedures for Consumer Products and Certain Commercial/Industrial Equipment” (“Process Rule”) found in 10 CFR part 430, subpart C, appendix A. 85 FR 8626. DOE also published a companion final rule on August 19, 2020 (“August 2020 Final Rule”), that clarified how DOE would conduct a comparative analysis across all trial standard levels when determining whether a particular trial standard level was economically justified. *See* 85 FR 50937. These rules collectively modified the Process Rule that DOE had originally issued on July 15, 1996 (“1996 Process Rule”) into its current form. *See* 61 FR 36974 and 10 CFR part 430, subpart C, appendix A (2021). While the 1996 Process Rule acknowledged that it would not be applicable to every rulemaking and that the circumstances of a particular rulemaking should dictate application of these generally applicable practices,¹ the revisions made in the February 2020 Final Rule sought to create a standardized rulemaking process that was binding on the Department. 85 FR 8626, 8634. In creating this one-size-fits-all approach, the February 2020 Final Rule and the August 2020 Final Rule also added additional steps to the rulemaking process that are not required by any applicable statute.

¹ *Id.* 61 FR 36979.

Subsequent events have caused DOE to reconsider the merits of a one-size-fits-all rulemaking approach to establishing and amending energy conservation standards and test procedures. Two of these events are particularly salient. First, on October 30, 2020, a coalition of non-governmental organizations filed suit under EPCA alleging that DOE has failed to meet rulemaking deadlines for 25 different consumer products and commercial equipment.² On November 9, 2020, a coalition of States filed a virtually identical lawsuit.³ In response to these lawsuits, DOE has had to reconsider whether the benefits of a one-size-fits-all rulemaking approach outweigh the increased difficulty such an approach poses in meeting DOE’s statutory deadlines and obligations under EPCA. As mentioned previously, the 1996 Process Rule allowed for “case-specific deviations and modifications of the generally applicable rule.” 61 FR 36974, 36979. This allowed DOE to tailor rulemaking procedures to fit the specific circumstances of a particular rulemaking. For example, under the 1996 Process Rule, minor modifications to a test procedure would not automatically result in a 180-day delay before DOE could issue a notice of proposed energy conservation standards. Eliminating these unnecessary delays would better enable DOE to meet its obligations and deadlines under EPCA. Further, the sooner new or amended energy conservation standards eliminate less-efficient covered products and equipment from the market, the greater the resulting energy savings and environmental benefits.

Second, on January 20, 2021, the White House issued Executive Order (“E.O.”) 13990, “Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis.” 86 FR 7037 (Jan. 25, 2021). Section 1 of that Order lists a number of policies related to

² *Natural Resources Defense Council v. DOE*, Case No. 20-cv-9127 (S.D.N.Y. 2020).

³ *State of New York v. DOE*, Case No. 20-cv-9362 (S.D.N.Y. 2020).

the protection of public health and the environment, including reducing greenhouse gas emissions and bolstering the Nation’s resilience to the impacts of climate change. 86 FR 7037, 7041. Section 2 of the Order instructs all agencies to review “existing regulations, orders, guidance documents, policies, and any other similar agency actions (agency actions) promulgated, issued, or adopted between January 20, 2017, and January 20, 2021, that are or may be inconsistent with, or present obstacles to, [these policies].” 86 FR 7037, 7041.

Agencies are directed, as appropriate and consistent with applicable law, to consider suspending, revising, or rescinding these agency actions and to immediately commence work to confront the climate crisis. 86 FR 7037, 7041. For certain explicitly enumerated agency actions, including the February 2020 and the August 2020 Final Rules, the Order directs agencies to consider publishing for notice and comment a proposed rule suspending, revising, or rescinding the agency action within a specific time frame. 86 FR 7037, 7037-7038. Under this mandate, DOE is directed to propose any major revisions to these two rules by March 2021, with any remaining revisions to be proposed by June 2021. 86 FR 7037, 7038.

In light of these events, DOE has identified several aspects of the February 2020 and the August 2020 Final Rules (together, representing the current Process Rule) that present obstacles to DOE’s ability to meet its obligations under EPCA. In accordance with E.O. 13990, DOE proposed major revisions to the current Process Rule in a notice of proposed rulemaking (NOPR) that was published on April 12, 2021 (“April 2021 NOPR”). 86 FR 18901. The comment period on the April 2021 NOPR ended on May 27, 2021.

In this document, DOE proposes additional revisions that would: further revise the process for coverage determination rulemakings; provide additional flexibility for DOE during the pre-NOPR stages of energy conservation standard and test procedure rulemakings, while preserving opportunities for stakeholders to provide early input in the rulemaking process; provide clarification on EPCA’s rulemaking process for ASHRAE equipment; and revise the sections on DOE’s analytical methods to reflect current rulemaking practices. These revisions are summarized in the following table. Note that for ease of use and clarity, the proposed regulatory text in this document contains both the proposed regulatory text in the April 2021 NOPR and the new text being proposed in this document. DOE is currently only soliciting comments on the new, additional regulatory text proposed in this NOPR.

List of Proposed Revisions to the Process Rule⁴

Section	Proposed Revisions from the April 2021 NOPR	Proposed Additional Revisions in this Document
1. Objectives	Revise language to be consistent with the newly proposed Section 3.	No revisions proposed.
2. Scope	No revisions proposed.	No revisions proposed.
3. Mandatory Application of the Process Rule	Replace with new Section 3, “Application of the Process Rule.”	No revisions proposed.
4. Setting Priorities for Rulemaking Activity	No revisions proposed.	No revisions proposed.
5. Coverage Determination Rulemakings	Eliminate the 180-day period in paragraph (c) between finalization of DOE test procedures and issuance of a NOPR proposing new or amended energy conservation standards.	Proposed introductory text and revised paragraph (a) would eliminate the requirement that a coverage determination rulemaking begins with a notice of proposed determination and allow DOE to seek early stakeholder input through preliminary

⁴ These proposed revisions are separate from and complementary to the revisions contained in DOE’s proposed regulatory text from its April 2021 NOPR. See 86 FR 18901, 18915-18921 (April 12, 2021).

Section	Proposed Revisions from the April 2021 NOPR	Proposed Additional Revisions in this Document
		rulemaking documents; revised paragraphs (b) and (c) would eliminate the requirement that final coverage determinations be published prior to the initiation of any test procedure or energy conservation standard rulemaking and at least 180 days prior to publication of a test procedure NOPR; revised paragraph (d) would allow DOE to propose, if necessary, an amended coverage determination before proceeding with a test procedure or standards rulemaking.
6. Process for Developing Energy Conservation Standards	Eliminate paragraph (b), “Significant Savings of Energy.”	Revised paragraph (a) would eliminate the requirement for a separate early assessment request for information (“RFI”) and clarify that DOE will issue one or more documents during the pre-NOPR stage of a rulemaking; revised paragraphs (a) and (b) would clarify public comment periods for pre-NOPR and NOPR documents; revised paragraph (a)(5) would reflect current DOE rulemaking practice.
7. Policies on Selection of Standards	Eliminate text in paragraph (e)(2)(i) requiring DOE to conduct a comparative analysis when determining whether a proposed	No revisions proposed.

Section	Proposed Revisions from the April 2021 NOPR	Proposed Additional Revisions in this Document
	standard level is economically justified.	
8. Test Procedures	Clarify in paragraph (c) that DOE may revise consensus industry test procedure standards for compliance, certification, and enforcement purposes; eliminate the 180-day period in paragraph (d) between finalization of DOE test procedures and issuance of a NOPR proposing new or amended energy conservation standards.	Revised paragraph (a) would eliminate the requirement for a separate early assessment request for information (“RFI”) and clarify that DOE will issue one or more documents during the pre-NOPR stage of a rulemaking; revised paragraphs (a) and (b) would clarify public comment periods for pre-NOPR and NOPR documents and eliminate the requirement that DOE identify necessary modifications to a test procedure prior to initiating an associated energy conservation standard rulemaking.
9. ASHRAE Equipment	No revisions proposed.	Revise section to follow ASHRAE rulemaking requirements in EPCA.
10. Direct Final Rules	Revise section to clarify that DOE will implement its direct final rule authority on a case-by-case basis.	No revisions proposed.
11. Negotiated Rulemaking Process	Eliminate section.	No revisions proposed.
12. Principles for Distinguishing Between Effective and Compliance Dates	No revisions proposed.	No revisions proposed.
13. Principles for the Conduct of the Engineering Analysis	No revisions proposed.	Revise to reflect current DOE rulemaking practice.

Section	Proposed Revisions from the April 2021 NOPR	Proposed Additional Revisions in this Document
14. Principles for the Analysis of Impacts on Manufacturers	Eliminate incorrect cross reference.	Revise to reflect current DOE rulemaking practice.
15. Principles for the Analysis of Impacts on Consumers	No revisions proposed.	Revise to reflect current DOE rulemaking practice.
16. Consideration of Non-Regulatory Approaches	No revisions proposed.	Revise to reflect current DOE rulemaking practice.
17. Cross-Cutting Analytical Assumptions	No revisions proposed.	Revise to reflect current DOE rulemaking practice; move discussion of emissions analysis into new section.

* As part of the proposed revisions, DOE will reorganize and renumber sections and subsections as required.

II. Authority and Background

A. Authority

Title III, Parts B⁵ and C⁶ of the Energy Policy and Conservation Act, as amended, (“EPCA” or “the Act”), Pub. L. 94-163 (42 U.S.C. 6291-6317, as codified), established the Energy Conservation Program for Consumer Products and Certain Industrial Equipment.⁷ Under EPCA, DOE’s energy conservation program for covered products consists essentially of four parts: (1) testing; (2) certification and enforcement procedures; (3) establishment of Federal

⁵ For editorial reasons, upon codification in the U.S. Code, Part B was redesignated Part A.

⁶ Part C was added by Pub. L. 95-619, Title IV, §441(a). For editorial reasons, upon codification in the U.S. Code, Part C was redesignated Part A-1.

⁷ All references to EPCA in this document refer to the statute as amended through Energy Act of 2020, Pub. L. 116–260 (Dec. 27, 2020).

energy conservation standards; and (4) labeling. Subject to certain criteria and conditions, DOE is required to develop test procedures to measure the energy efficiency, energy use, water use (as applicable), or estimated annual operating cost of each covered product and covered equipment during a representative average use cycle or period of use. (42 U.S.C. 6293; 42 U.S.C. 6314) Manufacturers of covered products and covered equipment must use the prescribed DOE test procedure when certifying to DOE that their products and equipment comply with the applicable energy conservation standards adopted under EPCA and when making any other representations to the public regarding the energy use or efficiency of those products. (42 U.S.C. 6293(c); 42 U.S.C. 6295(s); 42 U.S.C. 6314(a); and 42 U.S.C. 6316(a)) Similarly, DOE must use these test procedures to determine whether the products comply with energy conservation standards adopted pursuant to EPCA. (42 U.S.C. 6295(s); 42 U.S.C. 6316(a))

In addition, pursuant to EPCA, any new or amended energy conservation standard for covered products (and at least certain types of equipment) must be designed to achieve the maximum improvement in energy efficiency that is technologically feasible and economically justified. (42 U.S.C. 6295(o)(2)(A); 42 U.S.C. 6316(a)) In determining whether a standard is economically justified, EPCA requires DOE, to the greatest extent practicable, to consider the following seven factors: (1) the economic impact of the standard on the manufacturers and consumers; (2) the savings in operating costs, throughout the estimated average life of the products (*i.e.*, life-cycle costs), compared with any increase in the price of, or in the initial charges for, or operating and maintaining expenses of, the products which are likely to result from the imposition of the standard; (3) the total projected amount of energy, or as applicable, water, savings likely to result directly from the imposition of the standard; (4) any lessening of

the utility or the performance of the products likely to result from the imposition of the standard; (5) the impact of any lessening of competition, as determined in writing by the Attorney General, that is likely to result from the imposition of the standard; (6) the need for national energy and water conservation; and (7) other factors DOE finds relevant. (42 U.S.C. 6295(o)(2)(B)(i)) Furthermore, the new or amended standard must result in a significant conservation of energy (42 U.S.C. 6295(o)(3)(B); 42 U.S.C. 6313(a)(6); and 42 U.S.C. 6316(a)) and comply with any other applicable statutory provisions.

B. Background

DOE conducted an effort between 1995 and 1996 to improve the process it follows to develop energy conservation standards for covered appliance products. This effort involved reaching out to many different stakeholders, including manufacturers, energy-efficiency advocates, trade associations, State agencies, utilities, and other interested parties for input. The result was the publication of the 1996 Process Rule. 61 FR 36974. This document was codified at 10 CFR part 430, subpart C, appendix A, and it became known colloquially as the “Process Rule.” The goal of the Process Rule was to elaborate on the procedures, interpretations, and policies that would guide the Department in establishing new or revised energy conservation standards for consumer products. The rule was issued without notice and comment under the Administrative Procedure Act’s (“APA”) exception for “interpretative rules, general statements of policy, or rules of agency organization, procedure, or practice.” (5 U.S.C. 553(b)(A))

On December 18, 2017, DOE issued an RFI on potential revisions to the Process Rule. 82 FR 59992. DOE subsequently published a NOPR regarding the Process Rule in the *Federal*

Register on February 13, 2019. 84 FR 3910. DOE held public meetings for both the RFI and NOPR. After considering the comments it received, DOE then published a final rule in the *Federal Register* on February 14, 2020, which significantly revised the Process Rule. 85 FR 8626.

While DOE issued the 1996 Process Rule without notice and comment as an interpretative rule, general statement of policy, or rule of agency organization, procedure, or practice, the February 2020 Final Rule was issued as a legislative rule subject to notice and comment. For several reasons, as stated throughout this document and in the April 2021 NOPR, DOE believes the Process Rule is best described and utilized as generally applicable guidance that may guide, but not bind, the Department's rulemaking process. In accordance with E.O. 13990, DOE is using a notice and comment process to propose revisions to the Process Rule. 86 FR 7037.

III. Discussion of Proposed Revisions to the Process Rule

The following sections discuss the additional, proposed revisions to the Process Rule and request comment on those proposals. DOE is currently only soliciting comments on the new, additional revisions proposed in this NOPR and is not soliciting comments on the revisions proposed in the April 2021 NOPR. In addition to those specific requests for comment, DOE requests comment, data, and information regarding all aspects of this notice of proposed rulemaking.

A. Coverage Determinations

In addition to specifying a list of covered products and equipment, EPCA contains provisions that enable the Secretary of Energy to classify additional types of consumer products and commercial/industrial equipment as “covered” within the meaning of EPCA. (42 U.S.C. 6292(b); 42 U.S.C. 6312(b)) This authority allows DOE to consider regulating additional products and equipment to further the goals of EPCA, i.e., to conserve energy, as long as certain statutory requirements are met. Under 42 U.S.C. 6312(b), DOE is required to include commercial/industrial equipment as covered equipment “by rule.” While there is no corresponding requirement to include consumer products as covered products by rule,⁸ DOE conducts coverage determination rulemakings for both commercial/industrial equipment and consumer products.

In the February 2020 Final Rule, DOE added a section on coverage determination rulemakings. Among other things, the new section provided that DOE will: (1) initiate a coverage determination rulemaking with a notice of proposed determination; (2) publish final coverage determinations as separate notices prior to the initiation of any test procedure or energy conservation standard rulemaking and at least 180 days prior to publication of a test procedure NOPR; and (3) finalize any changes to an existing scope of coverage before proceeding with a test procedure or energy conservation standard rulemaking. 85 FR 8626, 8648-8653.

As discussed previously, DOE is reconsidering whether the benefits of a one-size-fits-all rulemaking approach that lacks flexibility and includes extra procedural steps not required by

⁸ Under 42 U.S.C. 6292(b), DOE is authorized to “classify” a consumer product as a covered product if certain conditions are met. But there is no mention of DOE having to make such classifications by rule.

EPCA outweigh the increased difficulty such an approach poses in meeting DOE's statutory deadlines and obligations under EPCA. (DOE is including a chart to depict its proposed revised process for energy conservation standards and test procedure rulemakings, as discussed in this document, in Docket No. EERE-2021-BT-STD-0003. Available at:

<https://www.regulations.gov/docket/EERE-2021-BT-STD-0003>.) First, with respect to the requirement that DOE initiate a coverage determination rulemaking with a notice of proposed determination, DOE notes that in some cases it may be necessary to gather information about a consumer product or commercial/industrial equipment before issuing a proposed determination of coverage. For instance, DOE may only classify a consumer product as a covered product if it is necessary or appropriate to carry out the purposes of EPCA and the average annual per-household energy use of the consumer product is likely to exceed 100 kilowatt-hours per year. (42 U.S.C. 6292(b)) As such, it may be beneficial to first issue an RFI or other document to solicit comment on whether a consumer product is likely to meet these requirements. Based on the information received, DOE may choose not to proceed with a notice of proposed determination. Accordingly, DOE proposes that it may issue an RFI or other pre-rule document prior to a notice of proposed coverage determination. DOE requests comments, information, and data on whether its proposed approach is appropriate or on any suggested alternatives.

Second, regarding the requirements to finalize coverage determinations prior to the initiation of any test procedure or energy conservation standard rulemaking and at least 180 days prior to publication of a test procedure NOPR, DOE notes that coverage determination, test procedure, and energy conservation standard rulemakings are interdependent. A coverage determination defines the product/equipment scope for which DOE can establish test procedures

and energy conservation standards. It also signals that inclusion of the consumer product or commercial/industrial equipment is necessary to carry out the purposes of EPCA, i.e., to conserve energy and/or water. In order to make this determination, DOE needs to consider whether a test procedure and energy conservation standards can be established for the consumer product or commercial/industrial equipment. If DOE cannot develop a test procedure that measures energy use during a representative average use cycle and is not unduly burdensome to conduct (42 U.S.C. 6293(b)(3); 42 U.S.C. 6314(a)(2)) or prescribe energy conservation standards that result in significant energy savings (42 U.S.C. 6295(o); 42 U.S.C. 6316(a)), then making a coverage determination is not necessary as it will not result in the conservation of energy. Thus, it is important that DOE be able to initiate test procedure and energy conservation standard rulemakings while the Department conducts a coverage determination rulemaking. Accordingly, DOE proposes to eliminate the requirement that coverage determination rulemakings must be finalized prior to initiation of a test procedure or energy conservation standard rulemaking. DOE requests comments, information, and data on whether its proposed approach is appropriate or on any suggested alternatives.

As for the requirement that a coverage determination be finalized 180 days prior to publication of a test procedure NOPR, DOE notes that there are significant differences between the benefits of finalizing a coverage determination prior to publishing a test procedure NOPR and the benefits of finalizing a test procedure prior to publishing an energy conservation standards NOPR. As discussed in the April 2021 NOPR, a delay between publication of a test procedure final rule and an energy conservation standards NOPR may be beneficial in some cases as it could allow stakeholders to gain greater familiarity with complex test procedure

amendments before providing comment on a proposal to amend standards. 86 FR 18901, 18908. But DOE does not see a corresponding potential benefit for delaying publication of a test procedure NOPR after a coverage determination, which establishes the scope of coverage, *i.e.*, a definition, for the newly covered product or equipment, is finalized. Accordingly, DOE proposes to eliminate the requirement that coverage determination rulemakings must be finalized 180 days prior to publication of a test procedure NOPR. DOE requests comments, information, and data on whether its proposed approach is appropriate or on any suggested alternatives. DOE notes that it will continue to follow the requirements at 42 U.S.C. 6312(b) for coverage determinations for commercial/industrial equipment and at 42 U.S.C. 6292(b) for consumer products.

B. Process for Developing Energy Conservation Standards

As part of the February 2020 Final Rule, DOE made a number of changes to section 6, *Process for Developing Energy Conservation Standards*, of the Process Rule, at least one of which has been revisited in the April 2021 NOPR. Most significantly, the February 2020 Final Rule amended the Process Rule to include a two-part test for determining whether EPCA's significant energy savings threshold has been met (*see* section 6(b) of the 2020 Process Rule amendments). 85 FR 8626, 8655-8676, 8705. However, for the reasons explained in the April 2021 NOPR, DOE has proposed to revise the Process Rule to eliminate the significant energy savings threshold test and to return to assessment of energy savings on a case-by-case basis. 86 FR 18901, 18905.

Although the aforementioned provision represents the primary change to the Process Rule regarding the development of energy conservation standards, DOE also adopted a number of other standards-related provisions in the February 2020 Final Rule, which are outlined in the paragraphs that follow. The Department has decided to revisit these provisions in this document and proposes further changes, as explained subsequently.

First, in section 6(a) of the Process Rule, the February 2020 Final Rule included an early assessment process for energy conservation standards. More specifically, in section 6(a)(1) of the Process Rule, DOE committed to publishing a notice in the *Federal Register* when it is considering initiation of a rulemaking to establish or amend any energy conservation standard, in which the agency will request submission of comments, data, and information on whether DOE should proceed with such rulemaking, including whether any new or amended rule would be: (1) cost-effective; (2) economically justified; (3) technologically feasible, or (4) would result in a significant savings of energy. Based upon available information, if DOE determines that a new or amended standard would not satisfy the applicable statutory criteria, it will publish a notice of proposed determination to that effect in the *Federal Register* for notice and comment.

Otherwise, section 6(a)(2) of the Process Rule provides that DOE would undertake the preliminary stages of a rulemaking to issue or amend the energy conservation standard, proceeding with either a framework document/preliminary analysis or an advance notice of proposed rulemaking (“ANOPR”). The Process Rule further provides that RFIs and notices of data availability (“NODA”) could be issued, as appropriate, in addition to these preliminary-stage documents. Finally, in section 6(a)(3) of the Process Rule, DOE clarifies that initiation of a standards rulemaking does not guarantee that standards will be issued, because it could later be

discovered that the applicable statutory criteria ultimately could not be satisfied. 85 FR 8626, 8704-8705.

Upon further consideration, DOE is proposing to modify these provisions to allow for a more expedited rulemaking process in appropriate cases, particularly in light of the significant number of legal deadlines confronting the Appliance Standards Program and the anticipated benefits to the Nation of the associated energy conservation standards. Because interested parties are free to raise the matter of the likelihood of satisfying or not satisfying the applicable statutory criteria needed for adoption of a new or amended energy conservation standard at any stage of the rulemaking, DOE has tentatively concluded that a separate rulemaking document limited to only that topic (*i.e.*, the early assessment RFI) may unnecessarily delay the overall process without appreciable benefit if used in all cases. Consequently, DOE proposes to remove the requirement for a separate early assessment RFI for energy conservation standards. Instead, DOE would welcome the same type of information in the context of an RFI, preliminary analysis, ANOPR, or some other pre-NOPR document, while at the same time asking other relevant questions and gathering information in the event that the Department decides to proceed with an energy conservation standards rulemaking. DOE requests comments, information, and data on whether its proposed approach is appropriate or on any other suggested alternatives.

Second, in section 6(e)(1) of the Process Rule, the February 2020 Final Rule clarified that if DOE determines it appropriate to move forward with an energy conservation standards rulemaking after conducting an early assessment, then the Department will publish in the *Federal Register* either a framework document with a subsequent preliminary analysis or an

ANOPR. That same subsection provides that if DOE finds, based upon the early assessment, that one or more of the required statutory criteria for setting an energy conservation standard cannot be met, then the Department will publish a proposed determination to that effect in the *Federal Register* for notice and comment (which may lead to a final determination, as appropriate). Section 6(e)(2) of the Process Rule provides that the length of the public comment period for pre-NOPR rulemaking documents will vary depending upon the circumstances of the particular rulemaking, but will not be less than 75 calendar days, and it further provides that DOE will determine whether a public hearing is appropriate for such documents. 85 FR 8626, 8705.

After further consideration, DOE proposes to modify and clarify these provisions as follows. As noted previously, DOE is proposing to eliminate the requirement for an energy conservation standard early assessment RFI, while maintaining the opportunity for early public input through other rulemaking documents as to whether new or amended energy conservation standards are warranted under the applicable statutory criteria. The Department has tentatively concluded that one round of pre-NOPR input may be sufficient in some cases. For instance, DOE is required to revisit final determinations that energy conservation standards do not need to be amended within three years. (42 U.S.C. 6295(m)(3)(B)) In such cases, DOE may only need to issue an RFI or NODA to update its rulemaking analysis in preparation for proposing amended standards or a determination that standards do not need to be amended. Another example for which a single round of pre-NOPR input may be sufficient would be if a product has been subject to multiple rounds of rulemaking, relies on mature technologies, and for which the market is well understood. As such, DOE proposes to publish one or more documents in the

Federal Register during the pre-NOPR stage of a rulemaking to gather information on key issues. Such document(s) could take several forms depending upon the specific proceeding, including a framework document, RFI, NODA, preliminary analysis, or ANOPR.

Additionally, DOE proposes to remove the 75-day comment period requirement for pre-NOPR energy conservation standards documents, as it is not compelled by EPCA or other applicable law. Instead, for these pre-NOPR documents for which there is no statutorily required comment period, DOE would provide an appropriate comment period,⁹ determined on a case-by-case basis, which is commensurate with the nature and complexity of the energy conservation standard at issue, and will consider requests from the public for extension of the comment period to allow additional opportunities for public input. Particularly given the many legal deadlines the Department faces for various appliance rulemakings, DOE reasons that these proposed changes would promote efficiency by eliminating redundant requests for the same information and otherwise streamlining the rulemaking process. It is DOE's belief that these changes would improve the efficiency of the Appliance Standards Program without sacrificing the quality of DOE's analyses or the opportunity for public input. Thus, for the reasons stated, DOE proposes to revise section 6(e) of the Process Rule to reflect these changes. DOE requests comments, information, and data on whether its proposed approach is appropriate or on any other suggested

⁹ See, for example, Executive Order 12866(6)(a)(1): "Each agency shall (consistent with its own rules, regulations, or procedures) provide the public with meaningful participation in the regulatory process. In particular, before issuing a notice of proposed rulemaking, each agency should, where appropriate, seek the involvement of those who are intended to benefit from and those expected to be burdened by any regulation (including, specifically, State, local, and tribal officials). In addition, each agency should afford the public a meaningful opportunity to comment on any proposed regulation, which in most cases should include a comment period of not less than 60 days."

alternatives. DOE also seeks comment on whether these changes would affect the quality of DOE's analyses or opportunities for public comment.

In section 6(g)(2) of the Process Rule, the February 2020 Final Rule stated that there would be a public comment period of at least 75 days for an energy conservation standards NOPR, with at least one public hearing or workshop. 85 FR 8626, 8706.

After further consideration, DOE proposes to modify the provision at section 6(g)(2) as follows. DOE proposes to remove the 75-day comment period requirement for energy conservation standards NOPRs, replacing it with a 60-day comment period as required by EPCA. (42 U.S.C. 6295(p)(2); 42 U.S.C. 6316(a)) Although the Department believes that 60 days offers an adequate amount of time for comment in most cases, DOE may extend the comment period, as appropriate and on a case-by-case basis, commensurate with the nature and complexity of the energy conservation standard at issue. While the 2020 Process Rule has not been in effect for long enough to cause these missed deadlines, for the reasons discussed throughout, DOE has tentatively concluded that this proposed change would promote the efficiency of the Appliance Standards Program by streamlining the rulemaking process. DOE requests comments, information, and data on whether its proposed approach is appropriate or on any other suggested alternatives.

Finally, section 6(f)(4) of the current Process Rule discusses factors to be considered in selecting a proposed standard. These provisions were not modified in the February 2020 Final Rule. DOE proposes to make minor updates to these provisions (now in proposed section

6(a)(5)(iv)) to reflect current Departmental practice, which has evolved in the decades since development of the 1996 Process Rule. The descriptions of the analyses currently in sections 13-17 present the procedures, interpretations, and policies as set forth in the 1996 Process Rule. In the years following that final rule, DOE's analyses have evolved and been refined. DOE also notes that stakeholders are afforded the opportunity to comment on the specific application of these analyses as part of the individual product and equipment rulemakings. The revisions proposed in the following sections reflect the current state of DOE's analytical methodologies. Specifically, DOE proposes and seeks public comment on the following proposed revisions:

- Impacts on manufacturers: remove specification of "private" in relation to manufacturer impacts, change assessment of impacts on plant closures to impacts on employment, and clarify that changes to capital investment may not be negative.
- Private impacts on consumers: clarify that DOE typically uses regional energy prices rather than national prices and remove reference of sensitivity analyses from this section as they correctly apply to the national impacts section.
- Impacts on utilities: revise to specify that this analysis considers utility generation and capacity rather than costs and revenues.
- Impacts on the environment: remove reference to impacts on pollution control costs, which DOE does not consider.

Additional detail regarding these proposed changes is provided in section III.E of this NOPR.

C. Process for Developing Test Procedures

As part of the February 2020 Final Rule, DOE made a number of changes to section 8, *Test Procedures*, of the Process Rule, some of which have been revisited in the April 2021 NOPR. First, the February 2020 Final Rule amended the Process Rule's title to reflect DOE's long practice of including test procedure rulemakings (as well as certain commercial/industrial equipment) within its scope, as the 1996 Process Rule only explicitly referred to energy conservation standards rulemakings for consumer products. 85 FR 8626, 8703. Although DOE has proposed in its April 2021 NOPR to once again make the Process Rule nonbinding guidance for the reasons explained in that document, DOE has maintained the applicability of the Process Rule to covered consumer products and certain commercial/industrial equipment, as well as to energy conservation standards and test procedures. 86 FR 18901, 18904-18905, 18915. The February 2020 Final Rule also required DOE to finalize a test procedure 180 days prior to publication of a NOPR to prescribe new or amended energy conservation standards, and it set a presumption that the Department would adopt applicable industry consensus test procedures without modification, unless such industry test procedures do not meet the requirements of EPCA. 85 FR 8626, 8676-8682, 8707-8708. However, in the April 2021 NOPR, DOE proposed to revise the Process Rule to eliminate the mandatory 180-day spacing requirement, and the Department also proposed to clarify that DOE will only adopt industry consensus test procedures if they meet the requirements of EPCA and that DOE may also adopt industry test procedure standards with modifications, or draft its own procedures as necessary to ensure compatibility with the relevant statutory requirements, as well as DOE's compliance, certification, and enforcement requirements. 86 FR 18901, 18906-18908, 18918-18919.

Although the aforementioned provisions represent the primary changes to the Process Rule test procedure provisions, DOE also adopted a small number of other test procedure-related provisions in the February 2020 Final Rule, which are outlined in the paragraphs that follow. The Department has decided to revisit these provisions in this document and proposes further changes, as explained subsequently.

First, in section 8(a) of the Process Rule, the February 2020 Final Rule included an early assessment process for test procedures similar to that adopted for energy conservation standards. Consequently, DOE committed to publishing a notice in the *Federal Register* when it is considering initiation of a rulemaking to amend a test procedure, in which the agency will request submission of comments, data, and information on whether an amended test procedure rule would: (1) more accurately measure energy efficiency, energy use, water use (as specified in EPCA), or estimated annual operating cost of a covered product during a representative average use cycle or period of use without being unduly burdensome to conduct; or (2) reduce testing burden. Based upon available information, if DOE determines that an amended test procedure is not justified at that time, it will publish a notice of proposed determination to that effect in the *Federal Register* for notice and comment. Otherwise, DOE would undertake the preliminary stages of a rulemaking to amend the test procedure. 85 FR 8626, 8707-8708.

Upon further consideration, DOE is proposing to modify this provision to allow for a more expedited rulemaking process in appropriate cases, particularly in light of the significant number of legal deadlines confronting the Appliance Standards Program and the anticipated benefits to the Nation of the associated energy conservation standards. Because interested

parties are free to raise the matter of the need for an amended test procedure at any preliminary stage of the rulemaking, DOE has tentatively concluded that a separate rulemaking document limited to only that topic (*i.e.*, the early assessment RFI) unnecessarily delays the overall process without appreciable benefit. Consequently, DOE proposes to remove the requirement for a separate early assessment RFI for test procedures. Instead, DOE would welcome the same type of information in the context of an RFI, preliminary analysis, ANOPR, or some other pre-NOPR document, while at the same time asking relevant questions and gathering information about other test procedure issues, such as the applicability of any industry test procedure, in the event that the Department decides to proceed with a test procedure rulemaking. Additionally, for these pre-NOPR documents for which there is no statutorily required comment period, DOE proposes to clarify that the Department would provide an appropriate comment period for pre-NOPR documents, determined on a case-by-case basis, which is commensurate with the nature and complexity of the test procedure rulemaking at issue. DOE also proposes to clarify that it will provide a minimum 60-day public comment period with at least one public hearing or workshop for test procedure NOPR documents. DOE has historically provided a 75-day comment period for test procedure NOPRs, consistent with the comment period requirement for technical regulations in the North American Free Trade Agreement, U.S.-Canada-Mexico (“NAFTA”), Dec. 17, 1992, 32 I.L.M. 289 (1993); the North American Free Trade Agreement Implementation Act, Pub. L. 103-182, 107 Stat. 2057 (1993) (codified as amended at 10 U.S.C.A. 2576) (1993) (“NAFTA Implementation Act”); and Executive Order 12889, “Implementation of the North American Free Trade Agreement,” 58 FR 69681 (Dec. 30, 1993). However, Congress repealed the NAFTA Implementation Act and has replaced NAFTA with the Agreement between the United States of America, the United Mexican States, and the United

Canadian States (“USMCA”), Nov. 30, 2018, 134 Stat. 11, thereby rendering E.O. 12889 inoperable. Consequently, since the USMCA is consistent with EPCA’s public comment period requirements and normally requires a minimum comment period of 60 days for technical regulations, DOE now proposes to provide a minimum 60-day public comment period for test procedure NOPRs. DOE requests comments, information, and data on whether its proposed approach is appropriate or on any other suggested alternatives.

Second, in section 8(b) of the Process Rule, the February 2020 Final Rule contemplated further opportunities for early public input if the Department determines to move forward with the test procedure rulemaking after considering comments on the early assessment RFI. Also, in that subsection, the February 2020 Final Rule stated that DOE will identify any necessary modifications to established test procedure prior to initiating the standards development process. 85 FR 8626, 8708. After further consideration, DOE proposes to modify and clarify these provisions as follows. As noted previously, DOE is proposing to eliminate the requirement for a test procedure early assessment RFI, while maintaining the opportunity for early public input through other rulemaking documents (potentially including RFIs) as to whether test procedure amendments are warranted under the applicable statutory criteria. The Department has tentatively concluded that one round of pre-NOPR input may be sufficient in some cases. Furthermore, DOE would clarify that its intention in section 8(b) was that Department will identify all test procedure modifications prior to issuing a proposed standard for that appliance, not to preclude the agency from preparing other pre-rulemaking standards documents, such as RFIs, NODAs, and preliminary analyses. DOE believes that such preliminary standards-related work and data gathering can commence in concert with the test procedure proceeding, as long as

any anticipated test procedure changes are identified and evaluated in time for them to be factored into the energy conservation standards proposal. It is DOE's belief that these changes would improve the efficiency of the Appliance Standards Program without sacrificing the quality of DOE's analyses or the opportunity for public input. DOE requests comments, information, and data on whether its proposed approach is appropriate or on any other suggested alternatives. In addition, DOE seeks comment on whether these changes would affect the quality of DOE's analyses or opportunities for public comment.

D. ASHRAE Equipment

In EPCA, Congress established a separate and unique regulatory scheme pertaining to DOE rulemaking of certain covered equipment addressed by ASHRAE Standard 90.1, *Energy Standard for Buildings Except Low-Rise Residential Buildings*, including specific requirements for both energy conservation standards and test procedures. See 42 U.S.C. 6313(a)(6) and 42 U.S.C. 6314(a)(4), respectively. In the February 2020 Final Rule, DOE added a section to the Process Rule specifically addressing ASHRAE equipment for the first time.¹⁰ 85 FR 8626, 8708.

While DOE sees value in setting forth the statutory requirements and the Department's regulatory process for covered ASHRAE equipment, a subsequent review suggests that DOE's initial efforts to explain the applicable ASHRAE requirements could be improved, both in terms of better delineating the process for energy conservation standards/test procedures and removing constraints that are neither compelled by the statute nor consistent with DOE's historic practice, and would impede DOE's ability to achieve EPCA's energy conservation purposes.

¹⁰ The 1996 Process Rule final rule did not address ASHRAE equipment specifically. 61 FR 36974 (July 15, 1996).

Consequently, DOE proposes to reorganize and revise the ASHRAE section of the Process Rule to focus on the requirements in EPCA, to increase clarity, and to be consistent with longstanding DOE practices. As part of this effort, DOE is proposing to remove extraneous language relating to DOE's interpretations of the statute's ASHRAE provisions, because the Department has found matters pertaining to scope, triggering, and applicable statutory criteria to typically involve nuances most appropriately addressed in individual ASHRAE rulemaking actions. One such example would be an update to the relevant ASHRAE standard that specifies standard levels for a type of covered equipment that previously was not subject to standards, as was the case with computer room air conditioners. See 77 FR 28928 (May 16, 2012). In such an instance, the application of EPCA's trigger provision is not the typical scenario in which existing standard levels for covered equipment are updated. Such matters may not lend themselves to a standardized approach suitable for inclusion in the Process Rule, but instead, are better addressed on a case-by-case basis in the context of the specific ASHRAE rulemaking in question. In light of the above, DOE's proposed changes are discussed in the paragraphs that follow.

First, DOE proposes to include separate sections delineating the EPCA requirements under two scenarios: (1) ASHRAE action regarding standards and test procedures (*i.e.*, "ASHRAE trigger" under 42 U.S.C. 6313(a)(6)(A) and 42 U.S.C. 6314(a)(4)(A)-(B), respectively) and (2) DOE's obligation to periodically review energy conservation standards and test procedures for ASHRAE equipment (*i.e.*, 6-year-lookback or 7-year-lookback under 42 U.S.C. 6313(a)(6)(C) and 42 U.S.C. 6314(a)(1), respectively). It is expected that this refinement

would provide additional clarity to stakeholders by more clearly articulating the statutory scheme regarding standards and test procedure rulemakings for ASHRAE equipment.

Within the ASHRAE trigger section, DOE proposes to further separate out the statutory requirements for energy conservation standards and test procedures. In the current version of the Process Rule, EPCA's timelines for energy conservation standards were erroneously applied to test procedures as well. DOE wishes to make clear the applicable statutory timelines applicable to energy conservation standard and test procedure rulemakings in the Process Rule. DOE also proposes to clarify what type of action on the part of ASHRAE would trigger a DOE review for amended energy conservation standards and test procedures. With respect to amended energy conservation standards, DOE only considers ASHRAE to have acted in a manner triggering DOE review when an updated version of ASHRAE Standard 90.1 publishes (*i.e.*, not at the time that an addendum to ASHRAE Standard 90.1 is released or approved), and the updated version includes an increase in stringency of standard levels or a new design requirement relative to the current Federal standards. With respect to test procedures, DOE only considers ASHRAE to have acted in a manner triggering DOE review when an updated version of ASHRAE Standard 90.1 publishes (*i.e.*, not at the time that an addendum to ASHRAE Standard 90.1 is released or approved), and that updated version adopts a new or amended test procedure. This approach is consistent with the ASHRAE-specific provisions in EPCA and generally consistent with past DOE practice. DOE notes in the past that it has treated an update to the industry test procedure standard referenced by ASHRAE Standard 90.1 as a trigger. See e.g., 77 FR 2356, 2358 (Jan. 17, 2012). DOE proposes to only consider an update to ASHRAE Standard 90.1 that modifies the referenced industry test procedure to be a trigger under the statute. This approach is

consistent with EPCA and provides certainty to the public regarding when DOE is required to consider updating test procedures for ASHRAE equipment. Finally, DOE notes that ASHRAE reviewing and reaffirming (*i.e.*, not amending) a standard or test procedure does not trigger a DOE review or affect the timing of DOE's separate obligation under EPCA to periodically review standards and test procedures for each class of covered equipment.

Under the ASHRAE trigger for test procedures (42 U.S.C. 6314(a)(4)), when ASHRAE Standard 90.1 is amended, the statute requires DOE to amend the Federal test procedure to be consistent with the updated version of Standard 90.1, unless the Department determines, by rule, published in the *Federal Register* and supported by clear and convincing evidence, that the amended industry test standard would not be representative of the equipment's energy efficiency, energy use, or estimated operating cost during a representative average use cycle and not be unduly burdensome to conduct. In such cases, DOE may then develop its own test procedure which does meet these statutory requirements related to representativeness and burden, even if the test procedure is not consistent with the amended industry test standard. Further, DOE notes that the statutory language "consistent with" itself provides some flexibility in adopting the amended industry test procedure. As EPCA does not require DOE to adopt a test procedure identical to applicable industry test standard, DOE may make modifications that are consistent with the applicable industry test standard.

In addition, DOE proposes to clarify that it is not required to adopt or align with sections of the industry test standard that are not necessary for the method of test for metrics included in the DOE test procedure (*e.g.*, sections of the industry test procedure regarding selection of

models for testing under an industry certification program, verification of represented values and the associated tolerances, and operational requirements need not be referenced or aligned with by DOE). These proposals are consistent with the Department's longstanding historic practice.

DOE proposes to remove the statement that DOE will adopt the revised ASHRAE levels or the industry test procedure, except in very limited circumstances. The circumstances under which DOE will adopt a more-stringent standard than the ASHRAE standard or a different test procedure are laid out in the statute. For example, DOE will issue a more-stringent standard than the ASHRAE standard if DOE determines, supported by clear and convincing evidence, that the more-stringent standard would result in significant additional conservation of energy and is technologically feasible and economically justified. (42 U.S.C. 6313(a)(6)(A)(ii)(II)) "Very limited circumstances" is an ambiguous description for a process that is delineated in EPCA. As a result, DOE proposes to remove this description of the circumstances under which DOE will not adopt the amended ASHRAE standard or industry test procedure.

In addition, DOE proposes to remove the discussion of what constitutes clear and convincing evidence. As DOE previously noted in the February 2020 Final Rule, the clear and convincing evidence standard has a specific meaning that the courts have routinely addressed through case law. See 85 FR 8626, 8642 (discussing in detail application of the "clear and convincing" evidentiary standard by courts and legal commentators). DOE does not believe the elaboration contained in the current paragraph adds value to the EPCA language already referenced in this section or to the established case law pertaining to the standard of review for clear and convincing evidence.

DOE also proposes to remove the statement that DOE believes that ASHRAE not acting to amend Standard 90.1 is tantamount to a decision that the existing standard remain in place. This statement does not have any effect on DOE's rulemaking obligations under the ASHRAE provisions in EPCA. As discussed previously, DOE initiates an ASHRAE rulemaking because: (1) Standard 90.1 is amended to include more-stringent standards or a new design requirement; or (2) EPCA requires DOE to evaluate each class of covered equipment every 6 years. Neither of these situations would be affected by a decision by ASHRAE to reaffirm an existing standard.

Finally, DOE also proposes to make two clarifications regarding its ASHRAE review process, which are consistent with longstanding DOE practice. First, in an ASHRAE trigger analysis, DOE will assess energy savings from amended ASHRAE Standard 90.1 levels as compared to the current Federal standard (or the market baseline in cases where ASHRAE adds new equipment classes or categories not previously subject to Federal standards), and will also assess energy savings from more-stringent standards as compared to the ASHRAE Standard 90.1 levels. DOE notes that the analysis period differs for these assessments, as EPCA specifies different compliance dates for adopting levels in ASHRAE as opposed to adopting more-stringent levels. And, second, DOE notes that under an ASHRAE trigger, it may review all metrics for the equipment category, even though ASHRAE only amended DOE's regulated metric(s), and the Department may also consider changing regulated metrics (while assessing equivalent stringency between metrics). DOE may also consider changing metrics during a 6-year-lookback or 7-year-lookback review. DOE believes this is consistent with EPCA's requirement that test procedures (and metrics) be representative of an average use cycle.

DOE requests comments, information, and data on whether its proposed approaches to ASHRAE standards and test procedure rulemakings are appropriate or on any other suggested alternatives.

E. Analytical Methodology

In the February 2020 Process Rule, DOE stated that it would consider changes to sections of the Process Rule involving its analytical methodologies in a subsequent proceeding after completion of a peer review. 85 FR 8686-8687. As such, these sections remained largely unchanged from the 1996 Process Rule. Subsequently, DOE engaged with the National Academy of Sciences (“NAS”) to review DOE’s analytical methodologies to ascertain whether modifications are needed to improve the Department’s analyses. That review process is still ongoing. Upon further reconsideration, DOE believes that it is important to revise the analytical sections in the Process Rule to better reflect Departmental practice. The descriptions of the analyses currently in sections 13-17 present the procedures, interpretations, and policies as set forth in the 1996 Process Rule. In the years following that final rule, DOE’s analyses have evolved and been refined. The revisions proposed in the following sections reflect the current state of DOE’s analytical methodologies. If DOE makes any revisions to its analytical methods based on the NAS peer review, the Department will propose any necessary corresponding revisions to the Process Rule in a subsequent proceeding.

1. New Section 12 Principles for the Conduct of the Engineering Analysis

DOE proposes to update the description of the analysis to more comprehensively describe the various approaches DOE takes in developing cost-efficiency relationships. Specifically, DOE proposes to reorganize the discussion to clearly describe the two key aspects of the engineering analysis: the efficiency analysis (*i.e.*, identifying the efficiency levels for analysis) and the cost analysis (*i.e.*, estimating the costs at each analyzed efficiency level).

In particular, 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).

DOE typically uses one or a combination of approaches to conduct the cost analysis, including (1) physical teardowns (*i.e.*, physically dismantling a commercially available product/equipment model, component-by-component, to develop a detailed bill of materials for the model); (2) catalog teardowns (*i.e.*, identifying each component using parts diagrams available from manufacturer websites or appliance repair websites, in lieu of physically deconstructing the product/equipment, to develop the bill of materials for the product/equipment); and/or (3) price surveys (*i.e.*, deriving costs using publicly available pricing data published on major online retailer websites and/or by soliciting prices from distributors and other commercial channels). The choice of approach depends on a suite of factors, including the availability and reliability of public information, characteristics of the subject product/equipment, and the availability and timeliness of purchasing the product/equipment on the market.

2. New Section 13 Principles for the Analysis of Impacts on Manufacturers

In the preamble to the July 1996 Process Rule, the Department of Energy committed to a detailed review of the existing manufacturer impact analysis methodologies. 61 FR 36974, 36979. During a series of public consultations in 1997, the Department presented a draft work plan for the development of new methods for assessing manufacturer impacts and invited comments and suggestions from interested parties. *See* 62 FR 8189 (Feb. 24, 1997). The Department implemented its revised Manufacturer Impact Analysis methodologies for final rules issued subsequently. DOE proposes to update the Process Rule to align with the manufacturer impact analysis methodologies that are the result of the 1997 process and subsequent stakeholder input. DOE proposes to clarify the process used to evaluate manufacturers impacts and expands the guidance on the methodologies used to solicit stakeholder input. The updates include:

- Acknowledgement of the manufacturer interview process. DOE adds language to reflect a critical tool used as part of the current process, wherein manufacturer specific data and information are used to develop and validate key inputs for the manufacturer impact analysis.
- Added detail on use of the Government Regulatory Impact Model (GRIM). The 1996 and 2020 Process Rules make mention of the GRIM without explanation of the model. DOE adds language on the structure, underlying principles, and outputs of the model.
- Differentiation between types of cost impacts. To better reflect the current process, DOE expands discussion about the types of manufacturer cost impacts considered in the analysis.

- Clarification on the treatment of manufacturer subgroups. To be consistent with the current process, DOE adds criteria on the evaluation of subgroups of manufacturers that may be disproportionately impacted by standards or that may not be accurately represented by the average cost assumptions.
- Consideration of competitive impacts, as required by EPCA. To be consistent with the current process and with EPCA, DOE adds criteria to consider any lessening of competition that is likely to result from imposition of standards and clarifies how the Department will coordinate with the Department of Justice.
- Inclusion of stakeholder concerns related to manufacturing capacity and direct employment impacts. To be consistent with the current process, DOE highlights criteria related to manufacturing capacity and direct employment impacts that the Department considers in its assessment of impacts on manufacturers.

3. New Section 14 Principles for the Analysis of Impacts on Consumers

DOE proposes minor changes to the discussion of analytical principles related to consumer impacts. These changes reflect the analytical methodologies that are the result of several iterations of stakeholder input and regulatory review, advances in data availability, and advances in analytical techniques in the academic literature. In particular, DOE proposes the following changes: (1) clarifications regarding the use of analytical input distributions in order to establish representative consumer samples and evaluate the range of potential impacts. These changes help to differentiate variation in consumer impacts captured in the Life-Cycle Cost (LCC) analysis from additional sensitivity or scenario analyses used for data or assumptions

subject to a higher degree of uncertainty; (2) clarifications to differentiate the LCC analysis from the consumer subgroup analysis, the latter of which considers impacts on subgroups of consumers who may be disproportionately impacted by a potential standard; (3) removal of discussion of magnitude of first cost and length of payback period triggering additional assessments, as those assessments are always made when relevant to a given products; and (4) the addition of a discussion on consumer discount rates, found in section 17 of the current Process Rule. The revised discussion reflects DOE's established practice of calculating weighted discount rates based on debt and equity holdings for both residential and commercial/industrial consumers, for the purposes of the LCC analysis.

4. New Section 15 Consideration of Non-Regulatory Approaches

DOE proposes to simplify the text to reflect its current practice and to clarify the data available for use in DOE's analyses. Specifically, the proposed revisions clarify that DOE's established practice is to compare non-regulatory initiatives relative to candidate/trial standard levels rather than considering their individual impacts. In addition, the proposed revisions clarify that DOE bases its assessment on the actual impacts of existing non-regulatory initiatives, and does not typically speculate on potential future non-regulatory initiatives or initiatives that have not yet been implemented. Finally, DOE proposes to eliminate reference to assessing appropriate compliance dates, as these are nearly always statutorily defined.

5. New Section 16 Cross-Cutting Analytical Assumptions

DOE proposes minor updates to reflect DOE's long-standing analytical practice. In particular, DOE proposes the following clarifications: (1) DOE will continue to utilize a 30-year analysis period along with a 9-year sensitivity analysis, but DOE no longer analyzes a time length specific to each product; (2) energy-efficiency trends will be based on the best available historical market data (which may or may not be based on NEMS); (3) analyses will generally adopt the reference energy price scenario of EIA's most current *Annual Energy Outlook* (while demand is not typically considered); and (4) the discount rates used in determining national costs and benefits (formerly referred to as social discount rates) are in accordance with the Office of Management and Budget (OMB)'s guidance to Federal agencies on developing regulatory analyses (OMB Circular A-4, September 17, 2003, and section E., "Identifying and Measuring Benefits and Costs," therein).

6. New Section 17 Emissions Analysis

DOE also proposes a new section 17 discussing the Department's emissions analysis that is based on text that is currently part of section 17, Cross-Cutting Analytical Assumptions. The proposed updates clarify that DOE will estimate emissions reductions of greenhouse gases and pollutants likely to result from candidate/trial standard levels following best practices at the time. These emissions reductions will potentially include the effect on electric power sector and site combustion emissions, as well as on "upstream activities" in the fuel production chain. The proposed updates also clarify that estimation of the monetary value of the avoided greenhouse gas emissions, as well as those of other air pollutants, will be based on best practices at the time, for example, by using accepted benefit-per-ton values from the scientific literature.

IV. Procedural Issues and Regulatory Review

A. Review Under Executive Orders 12866 and 13563

This regulatory action is a significant regulatory action under section 3(f)(4) of Executive Order 12866, “Regulatory Planning and Review,” 58 FR 51735 (Oct. 4, 1993). Accordingly, this proposed regulatory action was subject to review under the Executive Order by the Office of Information and Regulatory Affairs (OIRA) in the Office of Management and Budget (OMB).

The revisions contained in this proposed regulatory action are procedural changes designed to improve DOE’s ability to meet its rulemaking obligations and deadlines under EPCA. These proposed revisions would not impose any regulatory costs or burdens on stakeholders, nor would they limit public participation in DOE’s rulemaking process. Instead, these proposed revisions would allow DOE to tailor its rulemaking processes to fit the facts and circumstances of a particular rulemaking for a covered product or equipment.

DOE currently has energy conservation standards and test procedures in place for more than 60 categories of covered products and equipment and is typically working on anywhere from 50 to 100 rulemakings (for both energy conservation standards and test procedures) at any one time. Further, these rulemakings are all subject to statutory or other deadlines. Typically, review cycles for energy conservation standards and test procedures for covered products are 6 and 7 years, respectively. (42 U.S.C. 6295(m)(1); 42 U.S.C 6293(b)(1)) Additionally, if DOE decides not to amend an energy conservation standard for a covered product, the subsequent review cycle is shortened to 3 years. (42 U.S.C. 6295(m)(3)(B)) It is challenging to meet these cyclical deadlines for more than 60 categories of covered products and equipment. In fact, as

previously discussed, DOE is currently facing two lawsuits that allege DOE has failed to meet rulemaking deadlines for 25 different consumer products and commercial equipment.

In order to meet these rulemaking deadlines, DOE cannot afford the inefficiencies that come with a one-size-fits-all rulemaking approach. For example, having to issue an early assessment RFI followed by an ANOPR to collect early stakeholder input when a NODA or other pre-rule document would accomplish the same purpose unnecessarily lengthens the rulemaking process and wastes limited DOE resources. Similarly, having to identify any necessary modifications to a test procedure prior to initiating an energy conservation standard rulemaking makes it more difficult for DOE to meet rulemaking deadlines, while offering little to no benefit to stakeholders. The revisions proposed in this document would allow DOE to eliminate these types of inefficiencies that lengthen the rulemaking process and waste DOE resources, while not affecting the ability of the public to participate in the rulemaking process. Eliminating inefficiencies that lengthen the rulemaking process allows DOE to more quickly develop energy conservation standards that deliver the environmental benefits, including reductions in greenhouse gas emissions, that DOE is directed to pursue under E.O. 13990. Further, the sooner new or amended energy conservation standards eliminate less-efficient covered products and equipment from the market, the greater the resulting energy savings and environmental benefits.

Finally, the revisions proposed in this document would not dictate any particular rulemaking outcome in an energy conservation standard or test procedure rulemaking. DOE will

continue to calculate the regulatory costs and benefits of new and amended energy conservation standards and test procedures issued under EPCA in future, individual rulemakings.

B. Review Under the Regulatory Flexibility Act

The Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*, as amended by the Small Business Regulatory Enforcement Fairness Act of 1996) requires preparation of an initial regulatory flexibility analysis (IRFA) for any rule that by law must be proposed for public comment and a final regulatory flexibility analysis (FRFA) for any such rule that an agency adopts as a final rule, unless the agency certifies that the rule, if promulgated, will not have a significant economic impact on a substantial number of small entities. A regulatory flexibility analysis examines the impact of the rule on small entities and considers alternative ways of reducing negative effects. Also, as required by Executive Order 13272, “Proper Consideration of Small Entities in Agency Rulemaking,” 67 FR 53461 (August 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 DOE rulemaking process. 68 FR 7990. DOE has made its procedures and policies available on the Office of the General Counsel’s website at:

<https://www.energy.gov/gc/office-general-counsel>.

This proposed rule details generally applicable guidance that may guide, but not bind, the Department’s rulemaking process. The proposed revisions are intended to improve DOE’s ability to meet the obligations and deadlines outlined in EPCA by allowing DOE to tailor its rulemaking procedures to fit the specific facts and circumstances of a particular covered product or equipment, while not affecting the ability of any interested person, including small entities, to

participate in DOE's rulemaking process. Because this proposed rule imposes no regulatory obligations on the public, including small entities, and does not affect the ability of any interested person, including small entities, to participate in DOE's rulemaking process, DOE certifies that this proposed rule will not have a significant economic impact on a substantial number of small entities, and, therefore, no initial regulatory flexibility analysis is required. Mid-Tex Elec. Cooperative, Inc. v. F.E.R.C., 773 F.2d 327 (D.C. Cir. 1985).

C. Review Under the Paperwork Reduction Act of 1995

DOE is not amending its existing information collections through this proposed rule. Under existing provisions, manufacturers of covered products/equipment must certify to DOE that their products comply with any applicable energy conservation standards. In certifying compliance, manufacturers must test their products according to the DOE test procedures for such products/equipment, including any amendments adopted for those test procedures, on the date that compliance is required. DOE has established regulations for the certification and recordkeeping requirements for all covered consumer products and commercial equipment. 76 FR 12422 (March 7, 2011); 80 FR 5099 (Jan. 30, 2015). The collection-of-information requirement for 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 30 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.

Specifically, this proposed rule, addressing clarifications to the Process Rule itself, does not contain any collection of information requirement that would trigger the PRA.

D. Review Under the National Environmental Policy Act of 1969

DOE is analyzing this proposed regulation in accordance with the National Environmental Policy Act (NEPA) and DOE's NEPA implementing regulations (10 CFR part 1021). DOE's regulations include a categorical exclusion for rulemakings interpreting or amending an existing rule or regulation that does not change the environmental effect of the rule or regulation being amended. 10 CFR part 1021, subpart D, appendix A5. DOE's regulations include a categorical exclusion for rulemakings that are strictly procedural. 10 CFR part 1021, subpart D, appendix A6. DOE anticipates that this rulemaking qualifies for categorical exclusion A5 and A6 because it is amending a rule and because it is a procedural rulemaking, it does not change the environmental effect of the rule 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 rule.

E. Review Under Executive Order 13132

Executive Order 13132, “Federalism,” 64 FR 43255 (August 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 rule and has determined that it will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government. It will primarily affect the procedure by which DOE develops proposed rules to revise energy conservation standards and test procedures. EPCA governs and prescribes Federal preemption of State regulations that are the subject of DOE’s regulations adopted pursuant to the statute. In such cases, 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(d)) Therefore, Executive Order 13132 requires no further action.

F. Review Under Executive Order 12988

Regarding the review of existing regulations and the promulgation of new regulations, section 3(a) of Executive Order 12988, “Civil Justice Reform,” 61 FR 4729 (Feb. 7, 1996), 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. Regarding the review required by section 3(a), section 3(b) of Executive Order 12988 specifically requires that each Executive agency make every reasonable effort to ensure that when it issues a regulation, 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) clearly specifies the retroactive effect, if any; (5) specifies whether administrative proceedings are to be required before parties may file suit in court and, if so, describes those proceedings and requires the exhaustion of administrative remedies; (6) adequately defines key terms; and (7) 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 sections 3(a) and 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 has determined that, to the extent permitted by law, the proposed rule meets the relevant standards of Executive Order 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. (Pub. L. 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) (This policy is also available at <https://www.energy.gov/gc/office-general-counsel> under “Guidance & Opinions” (Rulemaking)) DOE examined the proposed rule according to UMRA and its statement of policy and has determined that the rule contains neither an intergovernmental mandate, nor a mandate that may result in the expenditure by State, local, and Tribal governments, in the aggregate, or by the private sector, of \$100 million or more in any year. Accordingly, no further assessment or analysis is required under UMRA.

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 rule 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 Executive Order 12630, “Governmental Actions and Interference with Constitutionally Protected Property Rights,” 53 FR 8859 (March 18, 1988), DOE has determined that this proposed rule 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). DOE has reviewed this proposed rule under the OMB and DOE guidelines and has concluded that it is consistent with the applicable policies in those guidelines.

K. Review Under Executive Order 13211

Executive Order 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 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 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.

DOE has tentatively concluded that the regulatory action in this document, which makes clarifications to the Process Rule that guides the Department in proposing energy conservation standards is not a significant energy action because it would not have a significant adverse effect on the supply, distribution, or use of energy, nor has it been designated as a significant energy action by the Administrator of OIRA. Therefore, it is not a significant energy action, and, accordingly, DOE has not prepared a Statement of Energy Effects for this proposed rule.

L. Review Consistent with OMB's 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 in-progress peer reviews of the energy conservation standards development process and analyses and has prepared a Peer Review Report pertaining to the energy conservation standards rulemaking analyses. 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. The “Energy Conservation Standards Rulemaking Peer Review Report,” dated February 2007, has been disseminated and is available at the following website: www.energy.gov/eere/buildings/peer-review. Because available data, models, and technological understanding have changed since 2007, DOE has engaged with the National Academy of Sciences to review DOE’s analytical methodologies to ascertain whether modifications are needed to improve the Department’s analyses. The results from that review are expected later in 2021.

V. 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, 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://www.energy.gov/eere/buildings/process-rule>. 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 proposed rulemaking, 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. Such persons may submit requests to speak by email to the Appliance and Equipment Standards Program, 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 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. 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 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 will be conducted in an informal, conference style. DOE will present summaries of comments received before the webinar, 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 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.

A transcript of the webinar will be included in the docket, which can be viewed as described in the *Docket* section at the beginning of this NOPR. 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 rule no later than the date provided in the **DATES** section at the beginning of this proposed rule. Interested parties may submit comments 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> webpage 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 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. 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. 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 telefacsimiles (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, written in English, and 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 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. 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).

VI. Approval of the Office of the Secretary

The Secretary of Energy has approved publication of this proposed rule.

List of subjects in 10 CFR Part 430

Administrative practice and procedure, Confidential business information, Energy conservation, Household appliances, Imports, Incorporation by reference, Intergovernmental relations, Small businesses, Test procedures.

Signing Authority

This document of the Department of Energy was signed on June 29, 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 June 29, 2021.

Kelly Speakes-
X Backman

Digitally signed by Kelly
Speakes-Backman
Date: 2021.06.29 15:58:50 -04'00'

Kelly Speakes-Backman
Principal Deputy Assistant Secretary and Acting
Assistant Secretary for Energy Efficiency and
Renewable Energy

For the reasons stated in the preamble, DOE proposes to amend part 430 of title 10 of the Code of Federal Regulations as set forth below:

PART 430—ENERGY CONSERVATION PROGRAM FOR CONSUMER PRODUCTS

1. The authority citation for part 430 continues to read as follows:

Authority: 42 U.S.C. 6291-6309; 28 U.S.C. 2461 note.

2. Appendix A to subpart C of part 430 is revised to read as follows:

**APPENDIX A TO SUBPART C OF PART 430 -- PROCEDURES, INTERPRETATIONS,
AND POLICIES FOR CONSIDERATION OF NEW OR REVISED ENERGY
CONSERVATION STANDARDS AND TEST PROCEDURES FOR CONSUMER
PRODUCTS AND CERTAIN COMMERCIAL/INDUSTRIAL EQUIPMENT**

1. Objectives
2. Scope
3. Application of the Process Rule
4. Setting Priorities for Rulemaking Activity
5. Coverage Determination Rulemakings
6. Process for Developing Energy Conservation Standards
7. Policies on Selection of Standards
8. Test Procedures

9. ASHRAE Equipment
10. Direct Final Rules
11. Principles for Distinguishing Between Effective and Compliance Dates
12. Principles for the Conduct of the Engineering Analysis
13. Principles for the Analysis of Impacts on Manufacturers
14. Principles for the Analysis of Impacts on Consumers
15. Consideration of Non-Regulatory Approaches
16. Cross-cutting Analytical Assumptions
17. Emissions Analysis

1. Objectives

This appendix establishes procedures, interpretations, and policies to guide the Department of Energy (“DOE” or the “Department”) in the consideration and promulgation of new or revised appliance energy conservation standards and test procedures under the Energy Policy and Conservation Act (EPCA). This appendix applies to both covered consumer products and covered commercial/industrial equipment. The Department’s objectives in establishing these procedures include:

(a) *Provide for early input from stakeholders.* The Department seeks to provide opportunities for public input early in the rulemaking process so that the initiation and direction of rulemakings is informed by comment from interested parties. DOE will be able to seek early input from interested parties in determining whether establishing new or amending existing energy conservation standards will result in significant savings of energy and is economically

justified and technologically feasible. In the context of test procedure rulemakings, DOE will be able to seek early input from interested parties in determining whether—

(1) Establishing a new or amending an existing test procedure will better measure the energy efficiency, energy use, water use (as specified in EPCA), or estimated annual operating cost of a covered product/equipment during a representative average use cycle or period of use (for consumer products); and

(2) Will not be unduly burdensome to conduct.

(b) *Increase predictability of the rulemaking timetable.* The Department seeks to make informed, strategic decisions about how to deploy its resources on the range of possible standards and test procedure development activities, and to announce these prioritization decisions so that all interested parties have a common expectation about the timing of different rulemaking activities. Further, DOE will offer the opportunity to provide input on the prioritization of rulemakings through a request for comment as DOE begins preparation of its Regulatory Agenda each spring.

(c) *Eliminate problematic design options early in the process.* The Department seeks to eliminate from consideration, early in the process, any design options that present unacceptable problems with respect to manufacturability, consumer utility, or safety, so that the detailed analysis can focus only on viable design options. DOE will be able to eliminate from consideration design options if it concludes that manufacture, installation or service of the design will be impractical, or that the design option will have a material adverse impact on the utility of the product, or if the design option will have a material adverse impact on safety or health. DOE will also be able to eliminate from consideration proprietary design options that represent a

unique pathway to achieving a given efficiency level. This screening will be done at the outset of a rulemaking.

(d) *Fully consider non-regulatory approaches.* The Department seeks to understand the effects of market forces and voluntary programs on encouraging the purchase of energy efficient products so that the incremental impacts of a new or revised standard can be accurately assessed and the Department can make informed decisions about where standards and voluntary programs can be used most effectively. DOE will continue to be able to support voluntary efforts by manufacturers, retailers, utilities, and others to increase product/equipment efficiency.

(e) *Conduct thorough analysis of impacts.* In addition to understanding the aggregate social and private costs and benefits of standards, the Department seeks to understand the distribution of those costs and benefits among consumers, manufacturers, and others, as well as the uncertainty associated with these analyses of costs and benefits, so that any adverse impacts on subgroups and uncertainty concerning any adverse impacts can be fully considered in selecting a standard. DOE will be able to consider the variability of impacts on significant groups of manufacturers and consumers in addition to aggregate social and private costs and benefits, report the range of uncertainty associated with these impacts, and take into account cumulative impacts of regulation on manufacturers. The Department will also be able to conduct appropriate analyses to assess the impact that new or amended test procedures will have on manufacturers and consumers.

(f) *Use transparent and robust analytical methods.* The Department seeks to use qualitative and quantitative analytical methods that are fully documented for the public and that produce results that can be explained and reproduced, so that the analytical underpinnings for policy decisions on standards are as sound and well-accepted as possible.

(g) *Support efforts to build consensus on standards.* The Department seeks to encourage development of consensus proposals for new or revised standards because standards with such broad-based support are likely to balance effectively the various interests affected by such standards.

2. *Scope*

The procedures, interpretations, and policies described in this appendix apply to rulemakings concerning new or revised Federal energy conservation standards and test procedures, and related rule documents (*i.e.*, coverage determinations) for consumer products in Part A and commercial and industrial equipment under Part A–1 of the Energy Policy and Conservation Act (EPCA), as amended, except covered ASHRAE equipment in Part A–1 are governed separately under section 9 in this appendix.

3. *Application of the Process Rule*

(a) This appendix contains procedures, interpretations, and policies that are generally applicable to the development of energy conservation standards and test procedures. The Department may, as necessary, deviate from this appendix to account for the specific circumstances of a particular rulemaking.

(b) This appendix is not intended to, and does not, create any right or benefit, substantive or procedural, enforceable at law or in equity.

4. *Setting Priorities for Rulemaking Activity*

(a) In establishing its priorities for undertaking energy conservation standards and test procedure rulemakings, DOE will consider the following factors, consistent with applicable legal obligations:

- (1) Potential energy savings;
- (2) Potential social and private, including environmental or energy security, benefits;
- (3) Applicable deadlines for rulemakings;
- (4) Incremental DOE resources required to complete the rulemaking process;
- (5) Other relevant regulatory actions affecting the products/equipment;
- (6) Stakeholder recommendations;
- (7) Evidence of energy efficiency gains in the market absent new or revised standards;
- (8) Status of required changes to test procedures; and
- (9) Other relevant factors.

(b) DOE will offer the opportunity to provide input on prioritization of rulemakings through a request for comment as DOE begins preparation of its Regulatory Agenda each spring.

5. Coverage Determination Rulemakings

DOE has discretion to conduct proceedings to determine whether additional consumer products and commercial/industrial equipment should be covered under EPCA if certain statutory criteria are met. (42 U.S.C. 6292(b) and 42 U.S.C. 6295(l) for consumer products; 42 U.S.C. 6312(b) for commercial/industrial equipment) This section describes the process to be used in establishing coverage for consumer products and commercial/industrial equipment.

(a) *Pre-Notice of Proposed Rulemaking (“NOPR”) Stage.* In determining whether to consider establishing coverage for a consumer product or commercial/industrial equipment, DOE may publish one or more preliminary documents in the *Federal Register* intended to gather information on key issues. Such document(s) will be published in the *Federal Register*, with accompanying documents referenced and posted in the appropriate docket.

(b) *NOPR Stage.* If DOE determines to proceed with a coverage determination process, the Department will publish a notice of proposed determination, providing an opportunity for public comment of not less than 60 days, in which DOE will explain how such products/equipment that it seeks to designate as “covered” meet the statutory criteria for coverage and why such coverage is “necessary or appropriate” to carry out the purposes of EPCA. In the case of commercial equipment, DOE will follow the same process, except that the Department must demonstrate that coverage of the equipment type is “necessary” to carry out the purposes of EPCA.

(c) *Final Rule.* DOE will publish a Final Rule in the *Federal Register* that establishes the scope of coverage for the product/equipment, responds to public comments received on the NOPR, and explains how inclusion of the newly covered product/equipment meets the statutory criteria for coverage and why such coverage is necessary or appropriate to carry out the purposes of EPCA. DOE will finalize coverage for a product/equipment prior to publication of a proposed rule to establish a test procedure.

(d) *Scope of Coverage Revisions.* If, during the substantive rulemaking proceedings to establish test procedures or energy conservation standards after completing a coverage determination, DOE finds it necessary and appropriate to amend the scope of coverage, DOE will propose an amended coverage determination and finalize coverage prior to moving forward with the test procedure or standards rulemaking.

6. Process for Developing Energy Conservation Standards

This section describes the process to be used in developing energy conservation standards for covered products and equipment other than those covered equipment subject to ASHRAE/IES Standard 90.1.

(a) *Pre-NOPR Stage.* (1) *General.* In determining whether to consider establishing or amending any energy conservation standard, DOE will publish one or more preliminary documents in the *Federal Register* intended to gather information on key issues. Such document(s) could take several forms depending upon the specific proceeding, including a framework document, request for information (RFI), notice of data availability (NODA), preliminary analysis, or advance notice of proposed rulemaking (ANOPR). Such document(s) will be published in the *Federal Register*, with any accompanying documents referenced and posted in the appropriate docket.

(2) *Satisfaction of Statutory Criteria.* As part of such pre-NOPR-stage document(s), DOE will solicit submission of comments, data, and information on whether DOE should proceed with the rulemaking, including whether any new or amended rule would satisfy the

relevant statutory criteria to be cost-effective, economically justified, technologically feasible, and result in a significant savings of energy. Based on the information received in response to such request and its own analysis, DOE will determine whether to proceed with a rulemaking for a new or amended energy conservation standard. If DOE determines at any point in the pre-NOPR stage that no candidate standard level for a new or amended standard is likely to satisfy all of the applicable statutory criteria (*i.e.*, to be technologically feasible and economically justified and result in significant energy savings), DOE will announce that conclusion in the *Federal Register* and proceed with notice-and-comment rulemaking that proposes a determination not to adopt new or amended standards. DOE notes that it will, consistent with its statutory obligations, consider both cost effectiveness and economic justification when issuing a determination not to amend a standard. If DOE receives sufficient information suggesting it could justify a new or amended standard or the information received is inconclusive with regard to the statutory criteria, DOE will move forward with the rulemaking to issue or amend an energy conservation standard. In those instances where the available information either suggested that a new or amended energy conservation standard might be justified or in which the information was inconclusive on this point, and DOE undertakes a rulemaking to establish or amend an energy conservation standard, DOE may still ultimately determine that such a standard is not economically justified, technologically feasible or would not result in a significant savings of energy at a later stage of the rulemaking.

(3) *Design options.* (i) *General.* Once the Department has initiated a rulemaking for a specific product/equipment but before publishing a proposed rule to establish or amend standards, DOE will typically identify the product/equipment categories and design options to be

analyzed in detail, as well as those design options to be eliminated from further consideration. During the pre-NOPR stage of the rulemaking, interested parties may be consulted to provide information on key issues, including potential design options, through a variety of rulemaking documents.

(ii) *Identification and screening of design options.* During the pre-NOPR phase of the rulemaking process, the Department will typically develop a list of design options for consideration. Initially, the candidate design options will encompass all those technologies considered to be technologically feasible. Following the development of this initial list of design options, DOE will review each design option based on the factors described in paragraph (a)(3)(iii) of this section and the policies stated in section 7 of this Appendix (*i.e.*, Policies on Selection of Standards). The reasons for eliminating or retaining any design option at this stage of the process will be fully documented and published as part of the NOPR and as appropriate for a given rule, in the pre-NOPR document(s). The technologically feasible design options that are not eliminated in this screening analysis will be considered further in the Engineering Analysis described in paragraph (a)(4) of this section.

(iii) *Factors for screening of design options.* The factors for screening design options include:

(A) *Technological feasibility.* Technologies incorporated in commercial products (or equipment) or in working prototypes will be considered technologically feasible.

(B) *Practicability to manufacture, install and service.* If mass production of a technology under consideration for use in commercially-available products (or equipment) and reliable installation and servicing of the technology could be achieved on the scale necessary to serve the relevant market at the time of the effective date of the standard, then that technology will be considered practicable to manufacture, install, and service.

(C) *Adverse Impacts on Product Utility or Product Availability.*

(D) *Adverse Impacts on Health or Safety.*

(E) *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.

(4) *Engineering analysis of design options and selection of candidate standard levels.* After design options are identified and screened, DOE will perform the engineering analysis and the benefit/cost analysis and select the candidate standard levels based on these analyses. The results of the analyses will be published in a Technical Support Document (TSD) to accompany the appropriate rulemaking documents.

(i) *Identification of engineering analytical methods and tools.* DOE will select the specific engineering analysis tools (or multiple tools, if necessary, to address uncertainty) to be used in the analysis of the design options identified as a result of the screening analysis.

(ii) *Engineering and life-cycle cost analysis of design options.* DOE and its contractors will perform engineering and life-cycle cost analyses of the design options.

(iii) *Review by stakeholders.* Interested parties will have the opportunity to review the results of the engineering and life-cycle cost analyses. If appropriate, a public workshop will be conducted to review these results. The analyses will be revised as appropriate on the basis of this input.

(iv) *New information relating to the factors used for screening design options.* If further information or analysis leads to a determination that a design option, or a combination of design options, has unacceptable impacts, that design option or combination of design options will not be included in a candidate standard level.

(v) *Selection of candidate standard levels.* Based on the results of the engineering and life-cycle cost analysis of design options and the policies stated in paragraph (a)(3)(iii) of this section, DOE will select the candidate standard levels for further analysis.

(5) *Analysis of impacts and selection of proposed standard level.* If DOE has determined preliminarily that a candidate standard level is likely to produce the maximum improvement in energy efficiency that is both technologically feasible and economically justified and constitutes significant energy savings, economic analyses of the impacts of the candidate standard levels

will be conducted. The Department will propose new or amended standards in a subsequent NOPR based on the results of the impact analysis.

(i) *Identification of issues for analysis.* The Department, in consideration of comments received, will identify issues that will be examined in the impacts analysis.

(ii) *Identification of analytical methods and tools.* DOE will select the specific economic analysis tools (or multiple tools, if necessary, to address uncertainty) to be used in the analysis of the candidate standard levels.

(iii) *Analysis of impacts.* DOE will conduct the analysis of the impacts of candidate standard levels.

(iv) *Factors to be considered in selecting a proposed standard.* The factors to be considered in selection of a proposed standard include:

(A) Impacts on manufacturers. The analysis of manufacturer impacts will include: Estimated impacts on cash flow; assessment of impacts on manufacturers of specific categories of products/equipment and small manufacturers; assessment of impacts on manufacturers of multiple product-specific Federal regulatory requirements, including efficiency standards for other products and regulations of other agencies; and impacts on manufacturing capacity, employment, and capital investment.

(B) Private impacts on consumers. The analysis of consumer impacts will include: Estimated private energy savings impacts on consumers based on regional average energy prices and energy usage; assessments of the variability of impacts on subgroups of consumers based on major regional differences in usage or energy prices and significant variations in installation costs or performance; consideration of changes to product utility, changes to purchase rate and/or costs of products, and other impacts of likely concern to all or some consumers, based to the extent practicable on direct input from consumers; estimated life-cycle cost with sensitivity analysis; and consideration of the increased first cost to consumers and the time required for energy cost savings to pay back these first costs.

(C) Impacts on competition, including industry concentration analysis.

(D) Impacts on utilities. The analysis of utility impacts will include estimated marginal impacts on electric and gas utility generation and capacity.

(E) National energy, economic, and employment impacts. The analysis of national energy, economic, and employment impacts will include: estimated energy savings by fuel type; estimated net present value of benefits to all consumers; sensitivity analyses using high and low discount rates reflecting both private transactions and social discount rates and high and low energy price forecasts; and estimates of the direct and indirect impacts on employment by appliance manufacturers, relevant service industries, energy suppliers, suppliers of complementary and substitution products, and the economy in general.

(F) Impacts on the environment. The analysis of environmental impacts will include estimated impacts on emissions of carbon and relevant criteria pollutants.

(G) Impacts of non-regulatory approaches. The analysis of energy savings and consumer impacts will incorporate an assessment of the impacts of market forces and existing voluntary programs in promoting product/equipment efficiency, usage, and related characteristics in the absence of updated efficiency standards.

(H) New information relating to the factors used for screening design options.

(6) *Public comment and hearing.* The length of the public comment period for pre-NOPR rulemaking documents will be determined on a case-by-case basis and may vary depending upon the circumstances of the particular rulemaking. For pre-NOPR documents, DOE will determine whether a public hearing is appropriate.

(7) *Revisions based on comments.* Based on consideration of the comments received, any necessary changes to the engineering analysis, life-cycle cost analysis, or the candidate standard levels will be made.

(b) *NOPR Stage.* (1) *Documentation of decisions on proposed standard selection.* The Department will publish a NOPR in the *Federal Register* that proposes standard levels and explains the basis for the selection of those proposed levels, and DOE will post on its website a draft TSD documenting the analysis of impacts. The draft TSD will also be posted in the

appropriate docket at <https://www.regulations.gov>. As required by 42 U.S.C. 6295(p)(1) of EPCA, the NOPR also will describe the maximum improvement in energy efficiency or maximum reduction in energy use that is technologically feasible and, if the proposed standards would not achieve these levels, the reasons for proposing different standards.

(2) *Public comment and hearing.* There will be not less than 60 days for public comment on the NOPR, with at least one public hearing or workshop. (42 U.S.C. 6295(p)(2) and 42 U.S.C. 6306)

(3) *Revisions to impact analyses and selection of final standard.* Based on the public comments received, DOE will review the proposed standard and impact analyses, and make modifications as necessary. If major changes to the analyses are required at this stage, DOE will publish a Supplemental Notice of Proposed Rulemaking (SNOPR), when required. DOE may also publish a NODA or RFI, where appropriate.

(c) *Final Rule Stage.* The Department will publish a Final Rule in the *Federal Register* that promulgates standard levels, responds to public comments received on the NOPR (and SNOPR if applicable), and explains how the selection of those standards meets the statutory requirement that any new or amended energy conservation standard produces the maximum improvement in energy efficiency that is both technologically feasible and economically justified and constitutes significant energy savings, accompanied by a final TSD.

7. Policies on Selection of Standards

(a) *Purpose.* (1) Section 6 describes the process that will be used to consider new or revised energy efficiency standards and lists a number of factors and analyses that will be considered at specified points in the process. Department policies concerning the selection of new or revised standards, and decisions preliminary thereto, are described in this section. These policies are intended to elaborate on the statutory criteria provided in 42 U.S.C. 6295.

(2) The procedures described in this section are intended to assist the Department in making the determinations required by EPCA and do not preclude DOE's consideration of any other information consistent with the relevant statutory criteria. The Department will consider pertinent information in determining whether a new or revised standard is consistent with the statutory criteria.

(b) *Screening design options.* These factors will be considered as follows in determining whether a design option will receive any further consideration:

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

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

(3) *Impacts on product utility.* If a technology is determined to have significant adverse impact on the utility of the product/equipment to subgroups of consumers, or 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 U.S. at the time, it will not be considered further.

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

(5) *Unique-pathway proprietary technologies.* If a technology has proprietary protection and represents a unique pathway to achieving a given efficiency level, it will not be considered further, due to the potential for monopolistic concerns.

(c) *Identification of candidate standard levels.* Based on the results of the engineering and cost/benefit analyses of design options, DOE will identify the candidate standard levels for further analysis. Candidate standard levels will be selected as follows:

(1) *Costs and savings of design options.* Design options that have payback periods that exceed the median life of the product or which result in life-cycle cost increases relative to the base case, using typical fuel costs, usage, and private discount rates, will not be used as the basis for candidate standard levels.

(2) *Further information on factors used for screening design options.* If further information or analysis leads to a determination that a design option, or a combination of design options, has unacceptable impacts under the policies stated in this Appendix, that design option or combination of design options will not be included in a candidate standard level.

(3) *Selection of candidate standard levels.* Candidate standard levels, which will be identified in the pre-NOPR documents and on which impact analyses will be conducted, will be based on the remaining design options.

(i) The range of candidate standard levels will typically include:

(A) The most energy-efficient combination of design options;

(B) The combination of design options with the lowest life-cycle cost; and

(C) A combination of design options with a payback period of not more than three years.

(ii) Candidate standard levels that incorporate noteworthy technologies or fill in large gaps between efficiency levels of other candidate standard levels also may be selected.

(d) *Pre-NOPR Stage.* New information provided in public comments on any pre-NOPR documents will be considered to determine whether any changes to the candidate standard levels are needed before proceeding to the analysis of impacts.

(e)(1) *Selection of proposed standard.* Based on the results of the analysis of impacts, DOE will select a standard level to be proposed for public comment in the NOPR. As required under 42 U.S.C. 6295(o)(2)(A), any new or revised standard must be designed to achieve the maximum improvement in energy efficiency that is determined to be both technologically feasible and economically justified.

(2) *Statutory policies.* The fundamental policies concerning the selection of standards include:

(i) A trial standard level will not be proposed or promulgated if the Department determines that it is not both technologically feasible and economically justified. (42 U.S.C. 6295(o)(2)(A) and 42 U.S.C. 6295(o)(3)(B)) For a trial standard level to be economically justified, the Secretary must determine that the benefits of the standard exceed its burdens by, to the greatest extent practicable, considering the factors listed in 42 U.S.C. 6295(o)(2)(B)(i). A standard level is subject to a rebuttable presumption that it is economically justified if the payback period is three years or less. (42 U.S.C. 6295(o)(2)(B)(iii))

(ii) If the Department determines that interested persons have established by a preponderance of the evidence that a standard level is likely to result in the unavailability in the

United States of any covered product/equipment type (or class) with performance characteristics (including reliability), features, sizes, capacities, and volumes that are substantially the same as products generally available in the U.S. at the time of the determination, then that standard level will not be proposed. (42 U.S.C. 6295(o)(4))

(iii) If the Department determines that a standard level would not result in significant conservation of energy, that standard level will not be proposed. (42 U.S.C. 6295(o)(3)(B))

(f) *Selection of a final standard.* New information provided in the public comments on the NOPR and any analysis by the Department of Justice concerning impacts on competition of the proposed standard will be considered to determine whether issuance of a new or amended energy conservation standard produces the maximum improvement in energy efficiency that is both technologically feasible and economically justified and still constitutes significant energy savings or whether any change to the proposed standard level is needed before proceeding to the final rule. The same policies used to select the proposed standard level, as described in this section, will be used to guide the selection of the final standard level or a determination that no new or amended standard is justified.

8. Test Procedures

(a) *Pre-NOPR Stage.* (1) *General.* In determining whether to consider establishing or amending any test procedure, DOE will publish one or more preliminary documents in the *Federal Register* (e.g., an RFI or NODA) intended to gather information on key issues.

(2) *Satisfaction of Statutory Criteria.* As part of such document(s), DOE will solicit submission of comments, data, and information on whether DOE should proceed with the rulemaking, including whether: a new test procedure would satisfy the relevant statutory criteria that test procedures be reasonably designed to produce test results which measure energy efficiency, energy use, water use (in the case of showerheads, faucets, water closets and urinals), or estimated annual operating cost of a covered product during a representative average use cycle or period of use, as determined by the Secretary, and shall not be unduly burdensome to conduct; or an amended test procedure would more fully or accurately comply with the aforementioned statutory criteria. Based on the information received in response to such request and its own analysis, DOE will determine whether to proceed with a rulemaking for a new or amended test procedure.

(3) If DOE determines that a new or amended test procedure would not satisfy the applicable statutory criteria, DOE will engage in notice-and-comment rulemaking to issue a determination that a new or amended test procedure is not warranted.

(4) If DOE receives sufficient information suggesting a new or amended test procedure may satisfy the applicable statutory criteria or the information received is inconclusive with regard to the statutory criteria, DOE will move forward with the rulemaking to issue or amend a test procedure.

(5) In those instances where the available information either suggested that a new or amended test procedure might be warranted or in which the information was inconclusive on this

point, and DOE undertakes a rulemaking to establish or amend a test procedure, DOE may still ultimately determine that such a test procedure does not satisfy the applicable statutory criteria at a later stage of the rulemaking.

(6) *Public comment and hearing.* The length of the public comment period for pre-NOPR rulemaking documents will be determined on a case-by-case basis and may vary depending upon the circumstances of the particular rulemaking. For pre-NOPR documents, DOE will determine whether a public hearing is appropriate.

(b) *NOPR Stage.* (1) *Documentation of decisions on proposed test procedure.* The Department will publish a NOPR in the *Federal Register* that proposes a new or amended test procedure and explains how the test procedure satisfies the applicable statutory criteria.

(2) *Public comment and hearing.* There will be not less than 60 days for public comment on the NOPR, with at least one public hearing or workshop. (42 U.S.C. 6295(p)(2) and 42 U.S.C. 6306)

(3) *Revisions to the analyses and establishment of a final test procedure.* Based on the public comments received, DOE will review the proposed test procedure, and make modifications as necessary. As part of this process, DOE may issue an RFI, NODA, SNOPI, or other rulemaking document, as appropriate.

(c) *Final Rule Stage.* The Department will publish a Final Rule in the *Federal Register* that establishes or amends a test procedure, responds to public comments received on the NOPR (and any subsequent rulemaking documents), and explains how the new or amended test procedure meets the applicable statutory requirements.

(d) *Adoption of Industry Test Methods.* DOE will adopt industry test procedure standards as DOE test procedures for covered products and equipment, but only if DOE determines that such procedures would not be unduly burdensome to conduct and would produce test results that reflect the energy efficiency, energy use, water use (as specified in EPCA) or estimated operating costs of that equipment during a representative average use cycle. DOE may also adopt industry test procedure standards with modifications or craft its own procedures as necessary to ensure compatibility with the relevant statutory requirements, as well as DOE's compliance, certification, and enforcement requirements.

(e) *Issuing final test procedure modification.* Test procedure rulemakings establishing methodologies used to evaluate proposed energy conservation standards will be finalized prior to publication of a NOPR proposing new or amended energy conservation standards.

(f) *Effective Date of Test Procedures.* If required only for the evaluation and issuance of updated efficiency standards, use of the modified test procedures typically will not be required until the implementation date of updated standards.

9. ASHRAE Equipment

EPCA provides unique statutory requirements and a specific set of timelines for certain enumerated types of commercial and industrial equipment (generally, commercial water heaters, commercial packaged boilers, commercial air-conditioning and heating equipment, and packaged terminal air conditioners and heat pumps (*i.e.*, “ASHRAE equipment”)).

(a) *ASHRAE Trigger Rulemakings for Energy Conservation Standards.* Pursuant to EPCA's statutory scheme for covered ASHRAE equipment, DOE is required to consider amending the existing Federal energy conservation standards for ASHRAE equipment when ASHRAE Standard 90.1 is amended with respect to standards or design requirements applicable to such equipment.

(1) Not later than 180 days after the amendment of ASHRAE Standard 90.1, DOE will publish in the FEDERAL REGISTER for public comment an analysis of the energy savings potential of amended energy efficiency standards for the affected equipment.

(2) Not later than 18 months after the amendment of ASHRAE Standard 90.1, DOE must adopt amended energy conservation standards at the new efficiency level in ASHRAE Standard 90.1 as the uniform national standard for the affected equipment, unless DOE determines by rule, and supported by clear and convincing evidence, that a more-stringent standard would result in significant additional conservation of energy and is technologically feasible and economically justified. In such case, DOE must adopt the more-stringent standard for the affected equipment not later than 30 months after amendment of ASHRAE Standard 90.1.

(3) Regarding amendments to ASHRAE Standard 90.1 involving energy conservation standards, DOE considers an amendment of a standard level to occur when an updated version of ASHRAE Standard 90.1 publishes (*i.e.*, not at the time that an addendum to ASHRAE Standard 90.1 is released or approved). In addition, DOE considers an amendment of standard levels in ASHRAE Standard 90.1 to be only those changes resulting in an increase in stringency of standard levels relative to the current Federal standards or the adoption of a design requirement.

(b) *ASHRAE Trigger Rulemakings for Test Procedures.* Pursuant to EPCA's statutory scheme for covered ASHRAE equipment, DOE is required to consider amending the existing Federal test procedures for such equipment when ASHRAE Standard 90.1 is amended with respect to test procedures applicable to such equipment.

(1) DOE shall amend the test procedure for ASHRAE equipment, as necessary, to be consistent with the amended ASHRAE Standard 90.1, unless DOE determines by rule, and supported by clear and convincing evidence, that to do so would not meet the requirements in 42 U.S.C. 6314(a)(2)-(3), which generally provide that the test procedure must produce results which reflect energy efficiency, energy use, and estimated operating costs during a representative average use cycle and not be unduly burdensome to conduct. If DOE makes such a determination, DOE may establish an amended test procedure for such equipment that meets the requirements in 42 U.S.C. 6314(a)(2)-(3).

(2) With regard to test procedures for ASHRAE equipment, EPCA requires DOE to adopt test procedures consistent with applicable industry test standards. DOE notes that the statutory language “consistent with” provides some flexibility in adopting the amended industry test procedure. As EPCA does not require DOE to adopt a test procedure identical to the applicable

industry test standard, DOE may make modifications that are consistent with the applicable industry test standard. Further, DOE is not required to adopt or align with sections of the industry test standard that are not necessary for the method of test for metrics included in the DOE test procedure (e.g., sections of the industry test procedure regarding selection of models for testing under an industry certification program, verification of represented values and the associated tolerances, and operational requirements need not be adopted or aligned with by DOE).

(c) *ASHRAE Lookback Rulemakings*. EPCA also requires that DOE periodically consider amending energy conservation standards and test procedures for ASHRAE equipment.

(1) EPCA requirements for ASHRAE equipment outside of the ASHRAE Standard 90.1 process include:

(i) *Energy Conservation Standards*. Every 6 years, DOE shall conduct an evaluation of each class of covered equipment. DOE shall publish either a notice of determination that standards do not need to be amended (because they would not result in significant additional conservation of energy and/or would not be technologically feasible and/or economically justified) or a notice of proposed rulemaking including new proposed standards (based on the criteria and procedures in 42 U.S.C. 6313(a)(6)(B) and supported by clear and convincing evidence).

(A) If DOE issues a notice of proposed rulemaking, it shall publish a final rule no more than 2 years later.

(B) If DOE determines that a standard does not need to be amended, not later than 3 years after such a determination, DOE must publish either a notice of determination that standards do not need to be amended (because they would not result in significant additional conservation of energy and/or would not be technologically feasible and/or economically justified) or a notice of proposed rulemaking including new proposed standards (based on the criteria and procedures in in 42 U.S.C. 6313(a)(6)(B) and supported by clear and convincing evidence).

(ii) *Test Procedures.* At least once every 7 years, DOE shall conduct an evaluation, and if DOE determines, supported by clear and convincing evidence, that amended test procedures would more accurately or fully comply with the requirements in 42 U.S.C. 6314(a)(2)-(3), it shall prescribe test procedures for the applicable equipment. DOE notes that EPCA requires test procedures that are “consistent with” industry test procedures. As noted in paragraph (b)(2) of this section, this affords DOE some flexibility in making modifications to the DOE test procedure that are consistent with the industry test procedure. Otherwise, DOE shall publish a notice of determination not to amend a test procedure.

(2) DOE’s 6-year-lookback and 7-year-lookback review requirements, as detailed in this section, are regulatory obligations specific to DOE and not satisfied by any ASHRAE action. Specifically, ASHRAE reviewing and reaffirming (but not amending) a standard or test procedure does not eliminate DOE’s separate requirement to review each class of covered equipment.

10. Direct Final Rules

In accordance with 42 U.S.C. 6295(p)(4), on receipt of a joint proposal that is submitted by interested persons that are fairly representative of relevant points of view, DOE may issue a direct final rule (DFR) establishing energy conservation standards for a covered product or equipment if DOE determines the recommended standard is in accordance with 42 U.S.C. 6295(o) or 42 U.S.C. 6313(a)(6)(B) as applicable. To be “fairly representative of relevant points of view” the group submitting a joint statement must, where appropriate, include larger concerns and small businesses in the regulated industry/manufacturer community, energy advocates, energy utilities, consumers, and States. However, it will be necessary to evaluate the meaning of “fairly representative” on a case-by-case basis, subject to the circumstances of a particular rulemaking, to determine whether fewer or additional parties must be part of a joint statement in order to be “fairly representative of relevant points of view.”

11. Principles for Distinguishing Between Effective and Compliance Dates

(a) *Dates, generally.* The effective and compliance dates for either DOE test procedures or DOE energy conservation standards are typically not identical, and these terms should not be used interchangeably.

(b) *Effective date.* The effective date is the date a rule is legally operative after being published in the *Federal Register*.

(c) *Compliance date.* (1) For test procedures, the compliance date is the specific date when manufacturers are required to use the new or amended test procedure requirements to make representations concerning the energy efficiency or use of a product, including certification that the covered product/equipment meets an applicable energy conservation standard.

(2) For energy conservation standards, the compliance date is the specific date upon which manufacturers are required to meet the new or amended standards for applicable covered products/equipment that are distributed in interstate commerce.

12. Principles for the Conduct of the Engineering Analysis

(a) The purpose of the engineering analysis is to develop the relationship between efficiency and cost of the subject product/equipment. Another important role of the engineering analysis is to identify the maximum technologically feasible level. The maximum technologically feasible level is one that can be reached through efficiency improvements and/or design options, both commercially feasible and in working prototypes. The Department will consider two elements in the engineering analysis: the selection of efficiency levels to analyze, as discussed in paragraph (b) of this section; and the determination of product cost at each efficiency level, as discussed in paragraph (c) of this section. From the efficiency/cost relationship developed in the engineering analysis, measures such as payback, life-cycle cost, and energy savings can be developed. The Department will identify issues that will be examined in the engineering analysis and the types of specialized expertise that may be required. DOE will select appropriate contractors, subcontractors, and expert consultants, as necessary, to perform the engineering analysis. DOE will minimize uncertainties by using measures such as test data or component or material supplier information where available. Also, the Department will consider data, information, and analyses received from interested parties for use in the analysis wherever feasible.

(b) The Department will typically use one of two approaches to develop energy efficiency levels for the engineering analysis: relying on observed efficiency levels in the market (*i.e.*, the efficiency-level approach); or determining the incremental efficiency improvements associated

with incorporating specific design options to a baseline model (*i.e.*, the design-option approach). The Department will consider the availability of data and analytical tools, the resource needs, and public comments when determining the best approach or combination of approaches for an engineering analysis.

(1) Using the efficiency-level approach, the efficiency levels established for the analysis will be determined based on the market distribution of existing products. This approach typically entails compiling a comprehensive list of products available on the market, such as from DOE's product certification database and conducting DOE energy performance tests to validate the certified ratings.

(2) Using the design option approach, the efficiency levels established for the analysis will be 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 and screening analysis. The design option approach will typically be used when a comprehensive database of certified models is unavailable. In certain rulemakings, the efficiency-level approach (based on actual products on the market) will be extended using the design option approach to interpolate to 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). The Department will identify, modify, or develop any engineering models necessary to predict the efficiency impact of any one or combination of design options on the product/equipment as measured by the applicable DOE test procedure.

(3) The cost-efficiency curve and a detailed description of any engineering models will be available to stakeholders during the pre-NOPR stage of the rulemaking.

(c) The Department will typically conduct the cost analysis using one or a combination of approaches depending on a suite of factors, including the availability and reliability of public information, characteristics of the subject product/equipment, and the availability and timeliness of purchasing the product/equipment on the market. The cost approaches are summarized as follows:

(1) *Physical teardowns*: Under this approach, the Department will physically dismantle a commercially-available product/equipment model, component-by-component, to develop a detailed bill of materials for the model. The core function of physical teardowns is to support the costing analysis; however, it serves other purposes as well. The teardown process provides information on the range of design options used to improve energy efficiency and informs the technology assessment. Performance testing and teardowns are used to define the baseline, against which incremental energy savings and incremental costs are compared. Teardowns are also used to identify technology options for consideration in the screening analysis and design paths for the Engineering Analysis.

(2) *Catalog teardowns*: The Department will often complement physical teardowns with catalogue (a.k.a., “virtual”) teardowns, thereby allowing the analysis to capture a broader range of capacities and other features within a product family. In lieu of physically deconstructing the product/equipment, the Department will identify each component using parts diagrams (available from manufacturer websites or appliance repair websites, for example) to develop the bill of

materials for the product/equipment. An analysis comprised of only virtual teardowns is also possible for product categories where features are well-documented.

(3) *Price surveys*: If neither a physical nor catalog teardown is feasible, or if they would be cost-prohibitive or otherwise impractical, the Department will conduct price surveys using publicly-available pricing data published on major online retailer websites and/or by soliciting prices from distributors and other commercial channels.

13. Principles for the Analysis of Impacts on Manufacturers

(a) *Purpose*. The purpose of the manufacturer impact analysis (MIA) is to identify and quantify the impacts of any new or amended energy conservation standards on manufacturers. The MIA will have both quantitative and qualitative aspects, and it will include the analyses of projected industry cash flows, the industry net present value, conversion costs, and direct employment. Additionally, the MIA will seek to describe how new or amended energy conservation standards might affect manufacturing capacity and competition, as well as how standards contribute to overall regulatory burden. Finally, the MIA will seek to identify any disproportionate impacts on manufacturer subgroups, including small business manufacturers. The Department will analyze the impact of standards on manufacturers with substantial input from manufacturers and other interested parties. This section describes the principles that will be used in conducting future manufacturing impact analyses.

(b) *Issue identification*. Prior to publishing a NOPR, the Department will identify issues that will require greater consideration in the detailed manufacturer impact analysis. Possible issues may include identification of specific types or subgroups of manufacturers and concerns over access to technology. Specialized contractor expertise and empirical data requirements, and

analytic tools required to perform the manufacturer impact analysis also would be identified at this stage.

(c) *Industry characterization.* Prior to publishing a NOPR, the Department will prepare an industry profile based on the market and technology assessment and other publicly available information. DOE will use public sources of information (*e.g.*, company financial reports) to derive preliminary financial inputs for the industry cash flow analysis. DOE will describe the present and past industry structure and market characteristics.

(d) *Interview Process.* DOE will seek to conduct structured, detailed interviews with manufacturers. During these interviews, DOE will discuss engineering, manufacturing, procurement, and financial topics in order to develop and validate key financial inputs, including product and capital conversion costs, and to gather additional information on the anticipated effects of energy conservation standards on revenues, direct employment, capital assets, industry competition, and subgroup impacts.

(e) *Industry Cash Flow Analysis.* The quantitative part of the MIA will rely primarily on the Government Regulatory Impact Model (“GRIM”), an industry cash flow model with inputs specific to each rulemaking. The Department will develop critical GRIM inputs using a number of sources, including publicly-available data, results of the other rulemaking analyses, and information gathered from industry stakeholders during the course of manufacturer interviews. To capture the uncertainty relating to manufacturer cost impacts and impacts on product/equipment sales, features, and prices following amended standards, the Department will use the GRIM to estimate a range of possible impacts under different scenarios.

(f) *Cost impacts on manufacturers.* The Department will seek input from interested parties on the treatment of cost issues. Manufacturers will be encouraged to offer suggestions and feedback on sources of data and DOE cost estimates. Costing issues to be addressed include:

(1) Product/equipment-specific costs associated with direct material, labor, and factory overhead (based on cost impacts estimated for the engineering analysis);

(2) Product conversion costs, which are investments in research, development, testing, marketing, and other non-capitalized costs necessary to make product designs comply with new or amended energy conservation standards; and

(3) Capital conversion costs, which are investments in property, plants, and equipment necessary to adapt or change production facilities such that new, compliant product designs can be fabricated and assembled.

(g) *Disproportional impacts on manufacturer subgroups.* DOE will evaluate subgroups of manufacturers that may be disproportionately impacted by standards or that may not be accurately represented by the average cost assumptions used to develop the industry cash flow analysis. Such manufacturer subgroups may include small business manufacturers, niche players, and/or manufacturers exhibiting a cost structure that largely differs from the industry average. The subgroup analysis will include qualitative descriptions and, where sufficient non-proprietary data are available, quantitative estimates.

(h) *Impacts on product/equipment sales, features, and prices.* The GRIM estimates manufacturer revenues based on total unit shipment projections and the distribution of those

shipments by efficiency level. For this analysis, the GRIM uses the NIA's annual shipment projections derived from the shipments analysis.

(i) *Measures of impact.* The Department will use the GRIM to calculate cash flows using standard accounting principles and changes in industry net present value (INPV) between the no-new-standards case and each standards case. The difference in INPV between the no-new-standards case and a standards case represents the financial impact of the new or amended energy conservation standard on manufacturers. Computations will be performed for the industry as a whole and, as appropriate, for manufacturer subgroups. Impacts to be analyzed include:

(1) Industry net present value and change in INPV relative to the no-new-standards case industry value. The Department will perform sensitivity/scenario analyses for parameters where significant uncertainty was identified and/or for which DOE received significant comment. An uncertainty analysis could include inputs such as production costs, conversion costs, manufacturer mark-ups, and shipment projections.

(2) Industry annual cash flows and percent change relative to the no-new-standards cash flow levels. The Department will analyze the impact of the new or amended standard on industry annual free cash flow as an indicator of potential financial constraints in the industry.

(3) Other measures of impact are described in paragraphs (j) through (m) of this section and will also be evaluated in the MIA.

(j) *Cumulative Impacts of Other Federal Regulatory Actions.*

(1) The Department will recognize and consider the overlapping effects on manufacturers of new or revised DOE standards and other Federal regulatory actions affecting the same products or equipment.

(2) If the Department determines that a proposed standard would impose a significant impact on product or equipment manufacturers within approximately three years of the compliance date of another DOE standard that imposes significant impacts on the same manufacturers (or divisions thereof, as appropriate), the Department will, to the extent possible, evaluate the impact on manufacturers of the proposed standard and assess the joint impacts of both standards on manufacturers as described in paragraph (j)(4) of this section.

(3) If the Department is directed to establish or revise standards for products/equipment that are components of other products/equipment subject to standards, the Department will consider the interaction between such standards in assessing manufacturer impacts of a particular standard as described in paragraph (j)(4) of this section.

(4) The Department will seek to assess regulations that affect the same product and same revenue streams in an appropriately coordinated or integrated analysis. Where multiple regulations do not affect the same revenue streams but lead to industry constraints due to resources shared (such as capital, engineering time, test lab availability, or limited capacity of shared vendors) across covered products, DOE will describe and consider those industry constraints.

(k) *Competitive Impact Assessment.* EPCA directs the Department to consider any lessening of competition that is likely to result from imposition of standards. It further directs

the Attorney General to determine in writing the impacts, if any, of any lessening of competition. To assist the Attorney General in making this determination, DOE will gather information that would help in assessing asymmetrical cost increases to some manufacturers, increased proportion of fixed costs potentially increasing business risks, and potential barriers to market entry (e.g., proprietary technologies).

(l) *Manufacturing Capacity Impact.* Through public comment and during the manufacturer interviews, the Department will seek information to help identify impacts on manufacturing capacity, such as:

(1) Capacity utilization and plant location decisions with and without new or amended standards;

(2) The ability of manufacturers to upgrade or remodel existing facilities to accommodate new or amended standards;

(3) The nature and value of stranded assets, if any, that are a direct result of new or amended standards; and

(4) Estimates for any one-time restructuring and other charges, where applicable.

(m) *Direct Employment Impacts.* To assess how direct employment patterns might be affected by new or amended standards, the Department will solicit industry participant views on

changes in employment patterns that may result from increased standard levels. To help bound quantitative estimates of the potential employment impacts, the Department will use the GRIM to estimate the number of direct employees in the no-new-standards case and in each of the standards cases during the analysis period.

(n) *Summary of quantitative and qualitative assessments.* The NOPR will include a summary of the manufacturer impacts detailed in the TSD. In the NOPR, DOE will report the manufacturer impacts for standard levels that are evaluated and discuss quantitative and qualitative impacts by standard level.

14. Principles for the Analysis of Impacts on Consumers

(a) *Early consideration of impacts on consumer utility.* The Department will consider at the earliest stages of the development of a standard whether particular design options will lessen the utility of the covered products/equipment to the consumer. See paragraph (c) of section 6.

(b) *Impacts on product/equipment availability.* The Department will determine, based on consideration of information submitted during the standard development process, whether a proposed standard is likely to result in the unavailability of any covered product/equipment type with performance characteristics (including reliability), features, sizes, capacities, and volumes that are substantially the same as products/equipment generally available in the U.S. at the time. DOE will not promulgate a standard if it concludes that it would result in such unavailability.

(c) *Measures of consumer impacts.* In the assessment of consumer impacts of standards, the Department will consider the Life-Cycle Cost and Payback Period to evaluate the savings in operating expenses relative to increases in the installed product cost.

(1) Consumer discount rates. To determine present values of costs and benefits in life-cycle cost analysis for residential consumers, DOE will calculate discount rates as the weighted average real interest rate across consumer debt and equity holdings. For commercial/industrial consumers, DOE will calculate discount rates as the weighted average cost of capital. DOE will use discount rate distributions to capture the diversity of residential and commercial/industrial consumers.

(2) Variation in consumer impacts. The Department will consider impacts on significant segments of consumers in determining standards levels, and will use representative consumer samples where possible to evaluate the potential distribution of impacts of candidate/trial standard levels being evaluated among consumers using the product under consideration for standards. Where LCC savings are positive, the Department will also consider impacts on any significant subgroups of consumers that may be disproportionately impacted by a potential standard level, such as low-income households or small businesses. DOE will consider non-regulatory approaches as discussed in Section 15, taking into account significant impacts on identifiable subgroups.

(3) Sensitivity and scenario analyses. For data or assumptions subject to a higher degree of uncertainty, the Department will also perform sensitivity and scenario analyses when appropriate.

15. Consideration of Non-Regulatory Approaches

The Department recognizes that non-regulatory efforts by manufacturers, utilities, and other interested parties can result in substantial efficiency improvements. The Department intends to consider the likely effects of non-regulatory initiatives relative to standard levels being evaluated. DOE will attempt to base its assessment on the actual impacts of such initiatives to date, but it also will consider information presented regarding the impacts that any existing initiative might have in the future.

16. Cross-cutting Analytical Assumptions

In selecting values for certain cross-cutting analytical assumptions, DOE expects to rely upon the following sources and general principles.

(a) *Underlying economic assumptions.* The appliance standards analyses will generally use the same economic growth assumptions that underlie the most current *Annual Energy Outlook (AEO)* published by the Energy Information Administration (EIA).

(b) *Analytic time length.* The appliance standards analyses will generally consider impacts over the lifetime of products shipped over a 30-year period. As a sensitivity case, the analyses may also use a shorter time period in analyzing the effects of the standard.

(c) *Energy price trends.* Analyses of the impact of appliance standards on users will generally adopt the reference energy price scenario of the EIA's most current *AEO*. The sensitivity of estimated impacts to possible variations in future energy prices are likely to be

examined using the EIA's high and low energy price scenarios. The analyses will incorporate regional and/or marginal prices as appropriate and where available.

(d) *Product/equipment-specific energy-efficiency trends, without updated standards.*

Product/equipment-specific energy-efficiency trends will be based on the best available historical market data, technology trends, and other product-specific assessments by DOE with input from interested parties.

(e) *Discount rates for national costs and benefits.* DOE uses both 3-percent and 7-percent real discount rates when estimating national impacts. Those discount rates are in accordance with the Office of Management and Budget (OMB)'s guidance to Federal agencies on developing regulatory analyses (OMB Circular A-4 (Sept. 17, 2003) and section E., "Identifying and Measuring Benefits and Costs," therein).

17. Emissions Analysis

(a) *Emissions reductions.* DOE will use best practices at the time to estimate emission reductions of certain greenhouse gases and pollutants likely to result from standard levels being evaluated. To date best practice means the emissions analysis typically includes two components. In the first component, DOE typically develops the power sector emissions analysis—to date best practice includes using a methodology that utilizes DOE's latest *Annual Energy Outlook*. For site combustion of natural gas or petroleum fuels, to date best practice means the combustion emissions are typically estimated using emission intensity factors from the Environmental Protection Agency (EPA). The second component of DOE's emissions analysis

typically estimates the effect of standard levels being evaluated on emissions due to "upstream activities" in the fuel production chain. These upstream activities include the emissions related to extracting, processing, and transporting fuels to the site of combustion, e.g. as detailed in DOE's Full-Fuel-Cycle Statement of Policy (76 FR 51281 (August 18, 2011)).

(b) *Monetization of emissions reductions.* For estimating the economic value of avoided emissions of carbon dioxide and other greenhouse gases, as well as those of other air pollutants, DOE will follow the best practices at the time, for example, by using accepted benefit-per-ton values from the scientific literature at the time.