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Part III

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Office of Energy Efficiency and
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10 CFR Part 430
Procedures for Consideration of New or
Revised Energy Conservation Standards
for Consumer Products; Final Rule

DEPARTMENT OF ENERGY**Office of Energy Efficiency and Renewable Energy****10 CFR Part 430**

RIN [1904-AA83]

Energy Conservation Program for Consumer Products: Procedures for Consideration of New or Revised Energy Conservation Standards for Consumer Products

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

ACTION: Notice of final rulemaking.

SUMMARY: The Department of Energy (DOE or Department) today promulgates a rule to elaborate on the procedures, interpretations and policies that will guide the Department in establishing new or revised energy efficiency standards for consumer products. The process described in this rule provides for greatly enhanced opportunities for public input, improved analytical approaches, and encouragement of consensus-based standards. This enhanced approach was developed by the Department on the basis of extensive consultations with many stakeholders.

EFFECTIVE DATE: The procedures, interpretations and policies established in this rule take effect on August 14, 1996.

ADDRESSES: A copy of the report entitled "Results of the Appliance Rulemaking Process Improvement Effort," from which much of the enhanced process described in this rule is derived, may be obtained from: U.S. Department of Energy, Office of Energy Efficiency and Renewable Energy, Forrestal Building, EE-43, 1000 Independence Avenue, SW, Washington, DC 20585, (202) 586-7574. This report may be read at the DOE Freedom of Information Reading Room, U.S. DOE, Forrestal Building, Room 1E-190, 1000 Independence Avenue, SW, Washington, DC 20585, (202) 586-6020, between the hours of 9 a.m. and 4 p.m., Monday through Friday, except Federal holidays.

FOR FURTHER INFORMATION CONTACT: Michael J. McCabe, Office of Energy Efficiency and Renewable Energy, U.S. Department of Energy, Mail Station EE-43, 1000 Independence Avenue, SW, Washington, DC 20585-0121, (202) 586-0371

Douglas W. Smith, Office of General Counsel, U.S. Department of Energy, Mail Station GC-70, 1000 Independence Avenue, SW, Washington, DC 20585-0103, (202) 586-3410

Deborah E. Miller, Office of Energy Efficiency and Renewable Energy, U.S. Department of Energy, Mail Station EE-1, 1000 Independence Avenue, SW, Washington, DC 20585-0121, (202) 586-8888.

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I. Background on Appliance Standards Program

The Department of Energy's appliance standards program is conducted pursuant to Title III, Part B of the Energy Policy and Conservation Act (EPCA). 42 U.S.C. 6291-6309. In 1987, EPCA was amended to establish by law national efficiency standards for certain appliances and a schedule for DOE to conduct rulemakings to periodically review and update these standards. National Appliance Energy Conservation Act, Pub. L. 100-12 (1987). The products covered by these standards included refrigerators and freezers, room air conditioners, central air conditioners and heat pumps, water heaters, furnaces, dishwashers, clothes washers and dryers, direct heating equipment, ranges and ovens, pool heaters, and fluorescent lamp ballasts. In conducting the rulemakings to update the standards, the Secretary of Energy is to set standards at levels that achieve the maximum improvement in energy

efficiency that is technologically feasible and economically justified.

The Energy Policy Act of 1992 (EPACT) further amended EPCA to expand the coverage of the standards program to include certain commercial and industrial equipment, including commercial heating and air-conditioning equipment, water heaters, certain incandescent and fluorescent lamps, distribution transformers, and electric motors. Energy Policy Act of 1992, Pub. L. 102-486 (1992). EPACT also established maximum water flow-rate requirements for certain plumbing products and provided for voluntary testing and consumer information programs for office equipment, luminaires, and windows.

EPCA also provides for DOE to establish test procedures to be used in evaluating compliance with efficiency standards. These test procedures are revised periodically to reflect new product designs or technologies.

As prescribed by EPCA, energy efficiency standards are established by a three-phase public process: Advance Notice of Proposed Rulemaking (ANOPR); Notice of Proposed Rulemaking (NOPR); and Final Rule. The process to develop test procedures is similar, except that an Advance Notice is not required.

In updating standards as required by EPCA, DOE revised standards for refrigerators and freezers in November 1989, with those standards becoming effective in January 1993. 54 FR 47916 (Nov. 17, 1989). These standards resulted in an approximately 25 percent reduction in refrigerator energy use. In May 1991, DOE issued revised energy conservation standards for clothes washers, clothes dryers, and dishwashers which became effective on May 14, 1994. 56 FR 22250 (May 14, 1991).

DOE has published notices of proposed rulemaking on revised standards for a number of covered products. A NOPR for energy conservation standards for eight products (water heaters, room air-conditioners, mobile-home furnaces, direct-heating equipment, pool heaters, kitchen ranges and ovens, fluorescent lamp ballasts, and televisions) was published in March 1994. 59 FR 10464 (March 4, 1994). DOE has since withdrawn the proposal to establish standards for television sets. 60 FR 32627 (June 23, 1995). With regard to ballasts and electric water heaters, DOE is gathering further inputs and conducting further analysis. 60 FR 5880 (Jan. 31, 1995). In July 1995, the Department issued a NOPR for energy conservation standards for refrigerator

products which was based largely on a proposal made by a coalition of refrigerator manufacturers, electric utilities, states and energy conservation advocates. 60 FR 37388 (July 20, 1995).

The Department of the Interior and Related Agencies Appropriations Act for Fiscal Year 1996 included a moratorium on proposing or issuing energy conservation appliance standards for the remainder of Fiscal Year 1996. See Pub. L. 104-134. The Department is continuing to work on the analyses underlying proposed standards and on test procedure revisions during this fiscal year.

The appliance standards program supports key objectives of the Administration's Sustainable Energy Strategy, which include: Increasing the efficiency of energy use in order to strengthen our economy and improve living standards; reducing the adverse environmental impacts associated with energy production, delivery and use; and keeping America secure by reducing our vulnerability to global energy market shocks. Although the Department recognizes that policies that rely on market forces or market-based incentives are preferable in many circumstances, appropriate regulatory intervention can achieve efficiency gains that will benefit consumers, businesses, and the Nation. Existing appliance standards are projected to save 23 quadrillion BTUs of energy from 1993 to 2015, resulting in estimated consumer savings of \$1.7 billion per year in 2000 and estimated annual emission reductions of 107 million tons of carbon dioxide and 280 thousand tons on nitrogen oxides by 2000. An aggressive program for promoting the efficient use of energy resources, including appliance efficiency standards that are technically feasible and economically justified, is a critical element of the Sustainable Energy Strategy.

II. Process Leading to Development of This Rule

Since the National Performance Review's recommendations on Regulatory Reform were issued over two years ago, the U.S. DOE has forged new ways of carrying out its appliance standards rulemaking responsibilities. To supplement the traditional rulemaking process established by law, the Department has encouraged consensus-based alternatives and invited interest group participation in the early stages of standards development with mechanisms such as technical sessions and workshops.

In September 1995, the Department announced a formal effort to consider

further improvements to the process used to develop appliance efficiency standards, calling on energy efficiency groups, manufacturers, trade associations, state agencies, utilities, and other interested parties to provide input to guide the Department's work. To date, the Department's process improvement effort has consisted of several elements:

- A series of preliminary meetings were held with interested parties to identify opportunities for improvement in the rulemaking process, standards priority setting, analysis methods and Department decision-making;
- Interviews were conducted with thirty organizations that have participated in past appliance rulemakings to solicit information regarding the perceived strengths and weaknesses of the process;
- A preliminary draft "Process Improvement Plan" was developed from these initial meetings and interviews;
- A public workshop was held to obtain broad-based input on the Department's draft "Process Improvement Plan" and other elements of the Department's proposed new approach;
- A draft report entitled "Results of the Appliance Rulemaking Process Improvement Effort" was prepared and distributed for comment to the workshop participants;
- Follow-up meetings were held with interested parties on the issues raised in the draft report; and
- Several drafts of today's rule were shared with stakeholders, and the Department addressed numerous comments made by interested parties in written submissions and during two well-attended stakeholder workshops.

The publication of this rule is an important step in institutionalizing the procedural improvements identified in this process. It is not, however, the only step. Other actions in the Department's process improvement effort include: A review of the manufacturing impact analysis model and methodologies; a review of non-regulatory approaches; the prioritization of future rules; and the creation of an advisory committee consisting of a representative group of interested parties, to oversee the implementation of these commitments. (See section IV of the Supplementary Information.) The objective is to act quickly to implement this enhanced standards development process, and to continue to invite extensive stakeholder consultation in the implementation phase.

The Department's many stakeholders have contributed tremendously to this effort to review the Department's procedures. The Department appreciates that sustained contribution, and is committed to implement a process that is more responsive to stakeholder concerns.

III. Description of Rule

1. Objectives

Section 1 of the rule articulates the Department's major objectives for the enhanced process to be employed for considering new or revised appliance efficiency standards. The Department's objectives are to:

- (a) Provide for early input from stakeholders
- (b) Increase predictability of the rulemaking timetable
- (c) Increase use of outside technical expertise
- (d) Eliminate problematic design options early in the process
- (e) Fully consider non-regulatory approaches
- (f) Conduct thorough analysis of impacts
- (g) Use transparent and robust analytical methods
- (h) Articulate policies to guide selection of standards
- (i) Support efforts to build consensus on standards
- (j) Reduce time and cost of developing standards

2. Scope

Section 2 describes the applicability of the enhanced process contained in the rule. The Department has adopted a common sense approach to the transition to this enhanced process.

DOE will use the new approach for all new rulemakings. With regard to rulemakings that are already underway, DOE and interested parties have invested substantial effort and resources. In balancing whether the benefits of using this enhanced process justify the delay of starting these rulemakings anew, DOE has concluded that the new process will be used, from the start, with respect to rulemakings in which a NOPR has not yet been published. To the extent analytical work has already been done or public comment on an ANOPR has already been provided, such analysis and comment will be considered, as appropriate, in proceeding under the new process. A case-by-case review is needed to determine how to proceed (i.e., whether some or all of the analytical or procedural steps should be repeated) with respect to products for which a NOPR has been issued and the

analysis is nearly complete. DOE's intentions concerning how to proceed with those rulemakings that are beyond the NOPR stage are discussed in some detail in section V below. Note that the rulemakings beyond the NOPR stage include one rule based on a consensus stakeholder recommendation and others for which there has been shared analysis and public workshops consistent with the direction of this rule.

3. Setting Priorities for Rulemaking Activity

Section 3 describes the process that will be used in developing rulemaking priorities, including factors to be considered. The annual process invites public input on the program's rulemaking agenda for the coming year, establishes factors to be considered in establishing priorities, and provides, in conjunction with the Department's Regulatory Agenda, a clear set of expectations about the scheduled rulemaking activities.

4. Process for Developing Efficiency Standards and Factors To Be Considered

Section 4 establishes the process for developing efficiency standards. This process is designed to provide for greater, and more productive, interaction between the Department and interested parties throughout the process. It is also designed so that key analyses are performed earlier in the process, with early opportunities for public input to and comment on the analyses. The process is consistent with the procedural requirements of law, but adds some important steps to enhance the process.

Building upon the National Performance Review's regulatory reform initiative, an effort has been underway at the Department to increase consultation with interested parties at every stage of the rulemaking process. In addition to holding the formal public hearings and soliciting written comments, the Department has increased its use of public workshops and other less formal tools to develop more effective standards. The Department has received broad support for its recent efforts to open the standards development process and its commitment to obtain input from interested parties early—well in advance of the ANOPR—and often in the rulemaking process.

Section 4 also articulates factors that DOE will take into account in screening design options, selecting candidate standard levels, and selecting proposed and final standard levels.

(a) Pre-ANOPR Screening and Analysis of Design Options

As described in section 4(a), the first step in a rulemaking will be a screening analysis that will identify the product categories and technologically feasible design options and then narrow the range of design options being considered for the development of candidate standard levels. This screening analysis, along with the engineering analysis and the selection of candidate standard levels, will occur before DOE publishes an ANOPR.

Some manufacturers have expressed concern that the Department may devote too much attention to consideration of design options that: Are not practical to mass manufacture, install or service; have substantial impacts on consumer utility; or raise significant safety concerns. The screening step is designed to address these concerns. The Department will develop, with input from interested parties, a list of design options for further consideration. The Department will eliminate from further consideration a design option that: Is not technologically feasible; is not practicable to manufacture, install and service; has significant adverse impact on the utility of the product to consumers; or adversely affects health or safety. Consistent with *Natural Resources Defense Council v. Herrington*, 768 F.2d 1355 (D.C. Cir. 1985), the Department will evaluate design options for technological feasibility on the basis of whether the options are in use by industry or research has progressed to the development of a prototype. However, consideration of practicability to manufacture, impacts on consumer utility and health and safety effects at this stage is designed to ensure that commercially impractical designs, even if technologically feasible, are screened out on the basis of other statutory criteria early in the process. This early screening approach should reduce uncertainty as to the direction of standards development.

The Department will seek expert input to conduct the necessary analyses. The Department, with input from interested parties, will identify issues that will be examined in the engineering analysis and the types of specialized expertise that may be required. With these specifications, DOE will select appropriate contractors, subcontractors, and as necessary, expert consultants to perform the engineering analysis and the impact analysis. DOE, in consultation with interested parties, also will identify technology/industry experts who can provide independent,

expert review of the results of the engineering analysis and the subsequent impact analysis. The Department will consider in the analyses, wherever feasible, data, information and analyses received from stakeholders.

After the screening of design options, the DOE contractor will perform engineering and initial economic analysis of the design options. The results of this analysis will be distributed for review by experts and interested parties. If appropriate, a public workshop will be conducted to review these results.

The process does not contemplate that the early screening process will be the final opportunity to gather and consider input on whether a design option is technologically feasible; is practicable to manufacture, install and service; has significant adverse impact on utility of the product to consumers; or adversely affects health or safety. Any new information on these issues that is provided in later stages of the rulemaking will be considered, as provided in sections 4(b)(4) and 4(d)(7)(ix), and a preliminary determination to include or exclude consideration of a design option based on the screening analysis may be revised if supported by a reexamination of these factors based on new information.

This emphasis on the early stages of the process is designed to enable interested parties and DOE to engage in a more productive, informative interaction on standards issues prior to the publication of the ANOPR, so that the standards development process starts with the best possible foundation of common understanding.

(b) Factors in Selection of Proposed Standard

Section 4(c) provides that following review of comments on the ANOPR, DOE's contractor will conduct specified impact analyses to be used by DOE in selecting proposed standards. The factors to be considered by DOE in selection of proposed standard levels include:

- (i) Consensus stakeholder recommendations
- (ii) Impacts on manufacturers
- (iii) Impacts on consumers
- (iv) Impacts on competition
- (v) Impacts on utilities
- (vi) National energy, economic and employment impacts
- (vii) Impacts on the environment and energy security
- (viii) Impacts of non-regulatory approaches
- (ix) New information relating to factors use for screening design options.

The Department's approach to analysis and consideration of several of these key factors is discussed in sections 10, 11, and 12 of the rule.

(c) Enhanced Opportunities for the Public to Receive Information and Provide Input

Throughout the process, the Department will provide interested parties with opportunities to provide data, recommendations and other comments. DOE will share with the public both analyses and preliminary decisions to inform interested parties as to the progress of standards development. This information from the Department will enable the public to provide informed input to DOE at each step of the process.

With the goal of better informing stakeholders about DOE rulemaking activities, the Department will use various methods, in addition to Federal Register notices, to notify interested parties of upcoming meeting and rulemaking notices, such as industry publications, Inside Energy, Air Conditioning News, Appliance Magazine, Product Safety Letter, and the Energy Efficiency and Renewable Energy Network (EREN) located on the Internet at <http://www.eren.doe.gov>.

(d) Timely Completion of Rulemakings

The Department's intent is to use a process that will produce standards that have sound analytical grounding and have been subject to thorough review and comment without making the process unduly time-consuming. The entire process provided for in section 4, from the date of issuance of the listing of priorities indicating that work is about to begin on the development of a new standard, to issuance of the final rule, should take no more than three years. The time required from issuance of an ANOPR to issuance of a final rule should be no more than 18 months.

Timely completion of rulemakings is essential. If experience demonstrates rulemakings are not being completed within a 3-year timeframe using this new process, DOE will reconsider this process to explore how changes can be made to expedite the process.

5. Policies on Selection of Standards

Section 5 describes Department policies concerning the selection of new or revised standards, and decisions preliminary thereto. These policies are intended to provide guidance for making the determinations required by section 325 of the EPCA, 42 U.S.C. 6295.

Section 5(b) states policy guidance for screening design options. In particular, it states that a design option will not be

considered further if it is determined that the technology: is not incorporated in a commercial product or a working prototype; will not be capable of being mass produced and installed and serviced by persons serving the relevant market at the time a standard would take effect; will have significant adverse impact on the utility of the product to consumers, or result in the unavailability of any product type generally available in the U.S. market; or will have significant adverse impacts on health or safety.

Section 5(c) and (d) describe the policies pertaining to the selection of candidate standard levels.

Sections 5(e) and (f) describe Department policies guiding selection of proposed and final standard levels. Section 325(o)(2)(A) of EPCA provides that any new or revised standard must be designed to achieve the maximum improvement in energy efficiency that is determined to be technologically feasible and economically justified. A candidate standard level will not be proposed or promulgated if the Department determines that it is not technologically feasible and economically justified. See EPCA section 325(o)(3)(B). A standard level is economically justified if the benefits exceed the burdens. See EPCA section 325(o)(2)(B)(i).

The Department encourages efforts to develop consensus among interested parties on proposals for new or revised standards as an effective mechanism for balancing the economic, energy, and environmental interests affected by standards. Thus, notwithstanding any other policy on selection of proposed standards, a consensus recommendation on an updated efficiency level submitted by a group that represents all interested parties will be proposed by the Department if it is determined to meet the statutory criteria.

Section 5(e) articulates a number of policies to guide the application of EPCA's economic justification criterion in selecting a proposed standard. Although many factors are pertinent to the ultimate judgment about whether the benefits of a standard level exceed the burdens, these policies reflect special concern about particular types of significant adverse impacts on consumers and manufacturers in reaching that judgment.

The policies articulated in section 5(e)(3)(i) are stated as rebuttable presumptions. Although these presumptions reflect the great significance DOE attaches to these factors, DOE will consider evidence that rebuts an applicable presumption that a

standard level is not economically justified. Any applicable presumption will be rebutted if the Department determines that specifically identified expected benefits of the standard would outweigh the expected adverse effects.

6. Effective Date of a Standard

Section 6 provides that the lead time between the publication of a final rule in the Federal Register and the effective date of the new or revised standard will be at least the period contemplated by the rulemaking schedules contained in EPCA. The Department will consider, on a case-by-case basis, further extending this lead time if the circumstances warrant. For instance, the lead time might be extended to mitigate the cumulative burden of implementing multiple product regulations or to permit time for market acceptance of new products. This section also provides that the period between the effective date of one standard and the effective date of any revision to that standard will be at least the period contemplated by the rulemaking schedules contained in EPCA. These policies will ensure that the time available for manufacturers to prepare for implementation of a new or revised standard and the time available for the amortization of any fixed costs associated with compliance will be no less than anticipated in the statute.

7. Test Procedures

Section 7 states the Department's commitment to ensure that revisions to test procedure rules necessary to evaluate revisions to standards are developed and finalized in a timely fashion.

Any necessary modifications in test procedures will be proposed before issuance of an ANOPR on revised standards and will be finalized prior to the issuance of a NOPR on revised standards. Where significant test procedure changes are needed, DOE will attempt to finalize test procedure revisions before the issuance of an ANOPR on revised standards.

8. Joint Stakeholder Recommendations

Section 8 states that the Department supports efforts by groups of interested parties to develop and present consensus recommendations on standards to DOE. Throughout the standards development process, and especially following the issuance of the ANOPR, interested parties are welcome to develop common recommendations to the Department on product categories and standard levels as well as on more specific analytical issues. The

Department will seek to support these efforts in whatever way possible.

9. Principles for the Conduct of Engineering Analysis

Section 9 states the Department's commitment to solicit input from interested parties and experts in conducting the engineering analysis. The Department will use this input to develop the design options to be considered in the subsequent analyses, identify any engineering models necessary, and estimate the likely cost and performance improvement potential of design options. The Department will use analytical methods that explicitly account for uncertainty.

10. Principles for the Analysis of Impacts on Manufacturers

Section 10 describes the approach DOE will use in the analysis and consideration of impacts on manufacturers. The process addresses a number of concerns raised in the process improvement effort. First, the process provides opportunities for comments in the pre-ANOPR screening process and at the beginning of the impact assessment process. This will focus attention on items of specific concern to each individual regulatory proceeding. Discussions on what data are critical as well as the specific approaches for generating those data will be conducted in open proceedings. Second, the Department will utilize an annual cash flow approach to determine quantitative impacts on manufacturers including a short term assessment based on the cost and capital requirements during the period between the announcement of a regulation and the time when the regulation comes into effect. Third, with input from manufacturers and other interested parties, the Department will develop estimates of the critical variables affecting manufacturers (such as expected changes in product prices, sales, and possible fuel switching) drawing on multiple sources of data both quantitative and qualitative. Fourth, the Department will analyze the impacts of a standard on different types of manufacturers, with particular attention to impacts on small manufacturers. This will be done with scenario analysis or other appropriate methods. Fifth, the Department will use models that: are clear and understandable; feature accessible calculations; and recognize and report the range of uncertainty. Finally, the Department will assess and describe the effects on manufacturers of other significant product-specific regulations that will take effect within three years

of the effective date of the standard under consideration and will affect significantly the same manufacturers. This assessment is intended to capture the impacts of different DOE standards affecting multiple products made by the same manufacturing division.

With respect to overlapping efficiency standards on a product and components of the product, the Department will pay special attention to the cumulative regulatory burden being borne by the manufacturer of finished products containing that component. In such cases, the Department will specifically address the cost of potential component standards plus the overlapping costs of existing parallel standards on both the component and the system in which the component is installed.

11. Principles for the Analysis of Impacts on Consumers

Section 11 describes the Department's approach to consideration of consumer impacts. First, in the very early stages of standard development, DOE will consider adverse impacts of design options on consumer utility and will identify other possible impacts on consumers of updated efficiency standards which may warrant closer examination during the standards development process. Second, DOE will determine, on the basis of any information submitted during the standard development process, whether a proposed standard is likely to result in the unavailability of any covered product type with performance characteristics, features, sizes, capacities, and volumes that are substantially the same as products generally available in the U.S. at the time. Consistent with EPCA, DOE will not promulgate a standard at a level where it concludes that it would result in such unavailability. Third, the Department will consider the views of the Department of Justice on any impacts of a proposed standard on competition, and will not issue a standard determined to have significant anticompetitive impacts. Fourth, the Department will use regional analysis and sensitivity analysis tools, as appropriate, to evaluate the potential distribution of impacts of candidate standards levels on consumers. The Department will consider impacts on significant segments of society in determining standards levels. Where significant subgroups would be expected to bear significant adverse impacts, DOE will place increased emphasis on voluntary programs to bring about additional potential energy savings.

The Department will be sensitive to first cost increases and make greater use of sensitivity analysis and scenario analysis in reporting consumer Life-Cycle Cost, Payback Period and Cost of Conserved Energy. The Department expects that the use of these methods will result in more economically efficient standards than reliance on pay-back period alone, while achieving the similar result of avoiding negative impacts to identifiable population groups.

Substantial increases in product prices may adversely affect low-income households or cause shifts in product purchasing patterns. Thus, if a candidate standard level would cause a substantial increase in the product first costs to consumers or would not pay back such additional first costs through energy cost savings in less than three years, Department will specifically assess the likely impacts of such a standard on low-income households, product sales and fuel switching. The results of this assessment will be considered in the evaluation of consumer and manufacturer impacts.

As noted during the process improvement effort, consumers have rarely participated directly in standards development. In order to address concerns about the lack of such direct participation, DOE will seek to strengthen its efforts to inform and involve consumers and consumer representatives in the process of developing standards. This will include expanded notification of consumer representatives during the process of developing updated efficiency standards and, where appropriate, DOE may seek the direct input of consumers.

The Department is committed to improving the analysis of engineering issues and consumer and manufacturer impacts. The Department also is cognizant that using ever more elaborate quantitative approaches carries the risk of unacceptable delays and incomprehensible analysis and results. For these reasons, the Department will seek to balance appropriately the use of quantitative and qualitative approaches, with the goal of providing the most useful information upon which to make the required judgments.

12. Consideration of Non-Regulatory Approaches

Section 12 states the Department's commitment to consider fully the likely effects of market forces and any non-regulatory initiatives in assessing the incremental benefits of efficiency standards. DOE considers voluntary "market pull" programs to be an

important complement to its standards program.

13. Crosscutting Analytical Assumptions

Section 13 describes the principles the Department intends to follow in selecting the key assumptions which are critical to the quantitative analysis of the impacts of candidate standard levels, including rates of economic growth, energy price and demand trends, product specific energy efficiency trends, real discount rates and emission rates. These cross-cutting analytical assumptions will continue to be specifically identified in all notices of proposed rulemaking and will continue to be subject to public comment and review as part of each such rulemaking.

Certain crosscutting analytical assumptions will change regularly as forecasts of economic growth, energy price, demand, efficiency and other trends are modified. In other cases, such as the real discount rates used to assess the present value of future costs or savings for consumers, commercial businesses, manufacturers or the Nation, the Department hopes that the crosscutting analytical assumptions will remain relatively stable. For residential consumers, the Department currently uses real discount rates of 2, 6 and 15% in the analysis of likely impacts of appliance standards. For commercial users, the Department currently uses 4, 8 and 12%. For manufacturers, the Department currently uses 12%, but is likely to develop a range of values for future use. For National benefits, the Department currently uses 7%.

With respect to the consideration of the impacts of candidate standards on the environment and energy security, the Department can find no sound analytical method for accurately estimating the monetary value of such environmental or energy security benefits (or costs). Therefore, the Department will not attempt to incorporate the estimated monetary value of such externalities into its estimates of the national net present values of candidate standard levels. However, as required by the National Environmental Policy Act, the Department will continue to consider the likely effects of candidate standard levels on the environment and energy security in reaching a decision as to whether the benefits of the such standard levels exceed their burdens.

EPCA provides that energy conservation standards prescribed under EPCA are to be based on energy consumption at the point of use (*i.e.*, site energy). See EPCA sections 321 (4),

(5) and (6). For purposes of estimating energy savings in evaluating the benefits of a proposed standard, DOE considers the energy savings associated with the production of the fuel used by the appliance covered by the standard (*i.e.*, source energy).

14. Deviations, Revisions and Judicial Review

The Department has crafted this rule to include procedures, interpretations and policies that it believes will be appropriate for general use in the future conduct of the appliance standards program. However, given the possibility of unanticipated circumstances affecting either particular rulemakings or the program generally, the rule includes provision for case-specific deviations and modifications of the generally applicable rule. If the Department concludes that elements of this rule are not appropriate in a particular standards rulemaking, DOE will provide interested parties with notice of the deviation and an explanation of why such a deviation was deemed appropriate. If the Department concludes, based on experience with this approach, that changes in this Appendix are appropriate, DOE will provide notice of such modifications to the rule with an accompanying explanation. DOE will consult with interested parties, probably through the advisory committee (described in section IV.5 of this Supplementary Information), prior to any such modification to the rule. The procedures, interpretations, and policies stated in this Appendix are not intended to establish any new cause of action or right to judicial review. Judicial review of final rules is provided for in section 336 of EPCA.

IV. Related DOE Actions To Implement Process Improvements

In addition to promulgation of this rule, DOE employed other activities to address some of the concerns raised by stakeholders during the process improvement. These activities are described below.

1. Finalized Process Improvement Report

The Department will issue the final report on "Results of the Appliance Rulemaking Process Improvement Effort" in August 1996.

2. Process To Develop Rulemaking Priorities

On June 14, 1996, the Department held a public workshop on priority-setting and DOE will make available a draft priority listing based on the results of our priority-setting analysis in late

July. The draft rulemaking priority listing and the accompanying analysis will: Indicate for which covered products DOE is proposing to initiate or continue, during the next two years, the development of updated standards; document the priority-setting analysis which DOE used to develop the draft priority listing; indicate the next steps for all currently active rulemakings; describe any variations from the enhanced process that will be followed for specific products; and provide a schedule for completion of each rulemaking identified.

The final list of rulemaking priorities will be available at the time that the Regulatory Agenda is published in the Federal Register in the fall of 1996. During the summer, the Department will obtain public comments on the draft listing of rulemaking priorities.

3. Review of Manufacturer Impact Analysis

In order to initiate the process of developing new and substantially improved methods for assessing the impacts of standards on manufacturers, DOE will review in detail the existing analyses methodologies, develop a draft work plan for the development of new methods for assessing manufacturer impact, and invite comments and suggestions from interested parties.

4. Review of Non-Regulatory Approaches

DOE has initiated a process for developing methods for comparing the likely benefits and costs of updated efficiency standards to various non-regulatory alternatives. For instance, DOE held a public workshop on June 20, 1996 which examined, among other issues, alternatives and complements to standards for fluorescent lamp ballasts. DOE expects to hold one or more similar workshops to examine these issues with regard to other products.

5. Creation of an Advisory Committee

DOE is establishing an Advisory Committee on Appliance Energy Efficiency Standards. The Committee will provide an official, organized forum for interested parties to provide the Department with advice, information, and recommendations on the Appliance Efficiency Standards rulemaking process. Committee members will be chosen to ensure an appropriately balanced representation of various points of view and functions of interested parties and experts, such as manufacturer trade associations, manufacturers, energy efficiency groups, consumers, utilities, retailers, and state energy offices. The Assistant Secretary

for Energy Efficiency and Renewable Energy will chair the Committee.

It is anticipated that this advisory committee will be a useful forum for obtaining advice on the desirability of making changes to the procedures, interpretations and policies set out in this rule, and on cross cutting analytical issues affecting all product standards. The Advisory Committee may recommend that DOE undertake generic proceedings relating to crosscutting analytical issues.

V. Status of Ongoing Rulemakings

As stated in section 2 of the rule, the Department will apply the new process described in section 4 of the rule to all rulemakings for which a NOPR has not yet been published. To the extent analytical work has already been done, and public comment on an ANOPR already has been provided, such analysis and comment will be considered, as appropriate, in proceeding with the new process.

The Department is precluded through September 1996 from using funds appropriated under the Fiscal Year 1996 Interior Appropriations Act to propose or promulgate new or revised efficiency standards. With respect to rulemakings for which a NOPR has already been published, DOE currently intends to proceed as follows:

Refrigerators. The analysis of comments on the NOPR is complete. At this time, DOE believes that no major changes to the underlying analysis of the proposed refrigerator standards is necessary. However, the Department expects to consult further with interested parties to determine whether it is appropriate to make alterations to the proposed standards to take into account the interaction between the revised efficiency standards and Clean Air Act and Montreal Protocol on Substances that Deplete the Ozone Layer regulations relating to manufacture of HCFCs, which take effect in 2003, as suggested by some stakeholders. The Department expects that any further consideration of this issue would be consistent with the approach taken in today's rule on pertinent topics such as cumulative regulatory burden.

Ballasts. The analysis underlying the previously proposed standards has been substantially revised and has been circulated for technical review by manufacturers and other interested parties. A public workshop to review this revised analysis was held on June 20, 1996.

Cooking Products and Room Air Conditioners. The analyses underlying the proposed standards for these two

product categories have been substantially revised and are now being circulated for technical review by manufacturers and other interested parties. On the basis of these analyses and any comments received on these analyses, the Department expects to proceed to issue a final rule after the current fiscal year 1996 moratorium expires.

Water Heaters. The analyses for gas, oil and electric water heaters are being revised and will be completed and made available for review depending on the priority given this product. A revised NOPR would be issued following the new procedure.

Mobile Home Furnaces, Direct Heating Equipment and Pool Heaters. The analyses for these products have been revised and will be made available for review depending on the priority given them. Revised NOPRs would be issued following the new procedure.

In the near term, DOE will consider these rulemakings among others in the upcoming priority setting effort, and will solicit and consider public comment on how to proceed with these rules in that process.

VI. Administrative Procedure

The rule published today describes procedures, interpretations, and policies DOE will follow in conducting rulemakings on appliance standards. DOE is not required to provide for prior notice and opportunity for comment on today's final regulations because they fall within the Administrative Procedure Act's exception for "interpretative rules, general statements of policy, or rules of agency organization, procedure, or practice." 5 U.S.C. 553(b)(A). Moreover, these procedures, interpretations and policies were developed with extensive consultation with representatives of all of the interests that typically participate in standards rulemakings. The consultations to date are described in detail in section II of this Supplementary Information.

VII. Administrative Reviews

A. Review Under Executive Order 12866

This regulatory action is not a significant regulatory action under Executive Order 12866, "Regulatory Planning and Review," October 4, 1993. Accordingly, this action was not subject to review under the Executive Order by the Office of Information and Regulatory Affairs.

B. Review Under Executive Order 12612

Executive Order 12612 requires that regulations, rules, legislation, and any

other policy actions be reviewed for any substantial direct effect on states, on the relationship between the National Government and states, or in the distribution of power and responsibilities among various levels of government. If there are substantial effects, then the Executive Order requires preparation of a federalism assessment to be used in all decisions involved in promulgating and implementing a policy action.

The final rules published today do not regulate the states. They primarily will affect the manner in which DOE develops proposed rules to revise consumer product energy efficiency standards. Section 327 of the EPCA provides for preemption of state regulation in this area. The final rules published today do not alter the distribution of authority and responsibility to regulate in this area. Accordingly, DOE has determined that preparation of a federalism assessment is unnecessary.

C. Review Under Executive Order 12988

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

by law, they meet the requirements of those standards.

D. Regulatory Flexibility Act

If an agency is required by law to issue a general NOPR, and if a rule has, or is likely to have, a significant negative economic impact on a substantial number of small entities, then the Regulatory Flexibility Act, 5 U.S.C. 601 *et seq.*, requires preparation of an initial and final regulatory flexibility analysis to accompany proposed and final rulemakings, respectively. Because the rule published today is exempt from notice and comment rulemaking under the Administrative Procedure Act, there is no requirement to prepare a regulatory flexibility analysis.

E. Review Under the National Environmental Policy Act

The Department has concluded that this rule falls into a class of actions that are categorically excluded from review under the National Environmental Policy Act of 1969 (NEPA), 42 U.S.C. 4321, 4331–35, 4341–47, because they would not individually or cumulatively have a significant impact on the human environment as determined by DOE's regulations. 10 CFR part 1021, subpart D. Therefore this rule does not require preparation of an environmental impact statement or environmental assessment pursuant to NEPA.

F. Review Under Unfunded Mandates Reform Act of 1995

Title II of the Unfunded Mandates Reform Act of 1995, Pub.L. 104–4, requires each Federal agency to assess the possible effects of Federal regulatory action on state, local, and tribal governments, and the private sector of Federal mandates. If a Federal mandate is expected to have an impact of \$100 million or more in any year, then the mandate is significant and the issuing agency is obliged to undertake a detailed assessment of costs and benefits. If the Federal mandate is a significant intergovernmental mandate, then the issuing agency is obliged to provide a meaningful and timely opportunity for affected governments to participate in the development of the rule. The final regulations in this notice apply only to the conduct of DOE officials and do not place regulatory obligations on anyone outside of DOE. Accordingly, there are no legal requirements under the Unfunded Mandates Reform Act of 1995 that apply to this rulemaking.

G. Review Under Small Business Regulatory Enforcement Fairness Act of 1996

Consistent with the Small Business Regulatory Enforcement Fairness Act of 1996, DOE will submit to Congress a report regarding the issuance of today's final rule prior to the effective date set forth at the outset of this notice. The report will note the Office of Management and Budget's determination that this rule does not constitute a "major rule" under that Act. 5 U.S.C. 801, 804.

List of Subjects in 10 CFR Part 430

Administrative practice and procedure, Energy conservation, Household appliances.

Issued in Washington, DC, on July 9, 1996.

Christine A. Ervin,
Assistant Secretary, Energy Efficiency and Renewable Energy.

For the reasons set forth in the preamble, Part 430 of Chapter II of Title 10, Code of Federal Regulations, is amended as set forth below:

PART 430—ENERGY CONSERVATION PROGRAM FOR CONSUMER PRODUCTS

1. The authority cite continues to read as follows:

Authority: 42 U.S.C. 6291–6309.

2. Appendix A to Subpart C of Part 430—Procedures, Interpretations and Policies for Consideration of New or Revised Energy Conservation Standards for Consumer Products—is added as set forth below:

Appendix A to Subpart C of Part 430—Procedures, Interpretations and Policies for Consideration of New or Revised Energy Conservation Standards for Consumer Products

1. Objectives
2. Scope
3. Setting Priorities for Rulemaking Activity
4. Process for Developing Efficiency Standards and Factors to be Considered
5. Policies on Selection of Standards
6. Effective Date of a Standard
7. Test Procedures
8. Joint Stakeholder Recommendations
9. Principles for the Conduct of Engineering Analysis
10. Principles for the Analysis of Impacts on Manufacturers
11. Principles for the Analysis of Impacts on Consumers
12. Consideration of Non-Regulatory Approaches
13. Crosscutting Analytical Assumptions
14. Deviations, Revisions, and Judicial Review

1. Objectives

This Appendix establishes procedures, interpretations and policies to guide the DOE

in the consideration and promulgation of new or revised appliance efficiency standards under the Energy Policy and Conservation Act (EPCA). The Department's objectives in establishing these guidelines 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. Under the guidelines established by this Appendix, DOE will seek early input from interested parties in setting rulemaking priorities and structuring the analyses for particular products. Interested parties will be invited to provide input for the selection of design options and will help DOE identify analysis, data, and modeling needs. DOE will gather input from interested parties through a variety of mechanisms, including public workshops.

(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 development activities, and to announce these prioritization decisions so that all interested parties have a common expectation about the timing of different rulemaking activities. The guidelines in this Appendix provide for setting priorities and timetables for standards development and test procedure modification and reflect these priorities in the Regulatory Agenda.

(c) *Increase use of outside technical expertise.* The Department seeks to expand its use of outside technical experts in evaluating product-specific engineering issues to ensure that decisions on technical issues are fully informed. The guidelines in this Appendix provide for increased use of outside technical experts in developing, performing and reviewing the analyses. Draft analytical results will be distributed for peer and stakeholder review.

(d) *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. Under the guidelines in this Appendix, DOE will 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 adversely affect the utility of the product, or if the design has adverse safety or health impacts. This screening will be done at the outset of a rulemaking.

(e) *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 "market pull" programs can be used most effectively. Under the guidelines in this

Appendix, DOE will solicit information on the effectiveness of market forces and non-regulatory approaches for encouraging the purchase of energy efficient products, and will carefully consider this information in assessing the benefits of standards. In addition, DOE will continue to support voluntary efforts by manufacturers, retailers, utilities and others to increase product efficiency.

(f) *Conduct thorough analysis of impacts.* In addition to understanding the aggregate costs and benefits of standards, the Department seeks to understand the distribution of those costs and benefits among consumers, manufacturers and others, and the uncertainty associated with these analyses of costs and benefits, so that any adverse impacts on significant subgroups and uncertainty concerning any adverse impacts can be fully considered in selecting a standard. Under the guidelines in this Appendix, the analyses will consider the variability of impacts on significant groups of manufacturers and consumers in addition to aggregate costs and benefits, report the range of uncertainty associated with these impacts, and take into account cumulative impacts of regulation on manufacturers.

(g) *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. Under the guidelines in this Appendix, DOE will solicit input from interested parties in identifying analysis, data, and modeling needs with respect to measurement of impacts on manufacturers and consumers.

(h) *Articulate policies to guide selection of standards.* The Department seeks to adopt policies elaborating on the statutory criteria for selecting standards, so that interested parties are aware of the policies that will guide these decisions. Under the guidelines in this Appendix, policies for screening design options, selecting candidate standard levels, selecting a proposed standard level, and establishing the final standard are established.

(i) *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 economic, energy, and environmental interests affected by standards. Under the guidelines in this Appendix, DOE will support the development and submission of consensus recommendations for standards by representative groups of interested parties to the fullest extent possible.

(j) *Reduce time and cost of developing standards.* The Department seeks to establish a clear protocol for initiating and conducting standards rulemakings in order to eliminate time-consuming and costly missteps. Under the guidelines in this Appendix, increased and earlier involvement by interested parties and increased use of technical experts should minimize the need for re-analysis. This

process should reduce the period between the publication of an Advance Notice of Proposed Rulemaking (ANOPR) and the publication of a final rule to not more than 18 months, and should decrease the government and private sector resources required to complete the standard development process.

2. Scope

(a) The procedures, interpretations and policies described in this Appendix will be fully applicable to:

(1) Rulemakings concerning new or revised Federal energy conservation standards for consumer products initiated after August 14, 1996, and

(2) Rulemakings concerning new or revised Federal energy conservation standards for consumer products that have been initiated but for which a Notice of Proposed Rulemaking (NOPR) has not been published as of August 14, 1996.

(b) For rulemakings described in paragraph (a)(2) of this section, to the extent analytical work has already been done or public comment on an ANOPR has already been provided, such analyses and comment will be considered, as appropriate, in proceeding under the new process.

(c) With respect to incomplete rulemakings concerning new or revised Federal energy conservation standards for consumer products for which a NOPR was published prior to August 14, 1996, the Department will conduct a case-by-case review to decide whether any of the analytical or procedural steps already completed should be repeated. In any case, the approach described in this Appendix will be used to the extent possible to conduct any analytical or procedural steps that have not been completed.

3. Setting Priorities for Rulemaking Activity

(a) *Priority-setting analysis and development of list of priorities.* At least once a year, the Department will prepare an analysis of each of the factors identified in paragraph (d) of this section based on existing literature, direct communications with interested parties and other experts, and other available information. The results of this analysis will be used to develop rulemaking priorities and proposed schedules for the development and issuance of all rulemakings. The DOE analysis, priorities and proposed rulemaking schedules will be documented and distributed for review and comment.

(b) *Public review and comment.* Each year, DOE will invite public input to review and comment on the priority analysis.

(c) *Issuance of final listing of rulemaking priorities.* Each fall, the Department will issue, simultaneously with the issuance of the Administration's Regulatory Agenda, a final set of rulemaking priorities, the accompanying analysis, and the schedules for all priority rulemakings that it anticipates within the next two years.

(d) *Factors for priority-setting.* The factors to be considered by DOE in developing priorities and establishing schedules for conducting rulemakings will include:

- (1) Potential energy savings.
- (2) Potential economic benefits.

(3) Potential environmental or energy security benefits.

(4) Applicable deadlines for rulemakings.

(5) Incremental DOE resources required to complete rulemaking process.

(6) Other relevant regulatory actions affecting products.

(7) Stakeholder recommendations.

(8) Evidence of energy efficiency gains in the market absent new or revised standards.

(9) Status of required changes to test procedures.

(10) Other relevant factors.

4. Process for Developing Efficiency Standards and Factors to be Considered

This section describes the process to be used in developing efficiency standards and the factors to be considered in the process. The policies of the Department to guide the selection of standards and the decisions preliminary thereto are described in section 5.

(a) *Identifying and screening design options.* Once the Department has initiated a rulemaking for a specific product but before publishing an ANOPR, DOE will identify the product categories and design options to be analyzed in detail, and identify those design options eliminated from further consideration. Interested parties will be consulted to identify key issues, develop a list of design options, and to help the Department identify the expertise necessary to conduct the analysis.

(1) *Identification of issues for analysis.* The Department, in consultation with interested parties, will identify issues that will be examined in the standards development process.

(2) *Identification of experts and other interested parties for peer review.* DOE, in consultation with interested parties, will identify a group of independent experts and other interested parties who can provide expert review of the results of the engineering analysis and the subsequent impact analysis.

(3) *Identification and screening of design options.* In consultation with interested parties, the Department will 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)(4) of this section and the policies stated in section 5(b). The reasons for eliminating any design option at this stage of the process will be fully documented and published as part of the ANOPR. The technologically feasible design options that are not eliminated in this screening will be considered further in the Engineering Analysis described in paragraph (b) of this section.

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

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

(ii) Practicability to manufacture, install and service. If mass production of a

technology in commercial products 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.

(iii) Adverse Impacts on Product Utility or Product Availability.

(iv) Adverse Impacts on Health or Safety.

(5) *Selection of contractors.* Using the specifications of necessary contractor expertise developed in consultation with interested parties, DOE will select appropriate contractors, subcontractors, and as necessary, expert consultants to perform the engineering analysis and the impact analysis.

(b) *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 ANOPR.

(1) *Identification of engineering analytical methods and tools.* DOE, in consultation with outside experts, 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.

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

(3) *Review by expert group and stakeholders.* The results of the engineering and life-cycle cost analyses will be distributed for review by experts and interested parties. 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.

(4) *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 based on the policies stated in section 5(b), that design option or combination of design options will not be included in a candidate standard level.

(5) *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 section 5(c), DOE will select the candidate standard levels for further analysis.

(c) *Advance Notice of Proposed Rulemaking.*

(1) *Documentation of decisions on candidate standard selection.* (i) If the screening analysis indicates that continued development of a standard is appropriate, the Department will publish an ANOPR in the Federal Register and will distribute a draft TSD containing the analyses performed to this point. The ANOPR will specify candidate standard levels but will not propose a particular standard. The ANOPR will also include the preliminary analysis of

consumer life-cycle costs, national net present value, and energy impacts for the candidate standard levels based on the engineering analysis.

(ii) If the preliminary analysis indicates that no candidate standard level is likely to meet the criteria specified in law, that conclusion will be announced. In such cases, the Department may decide to proceed with a rulemaking that proposes not to adopt new or amended standards, or it may suspend the rulemaking and conclude that further action on such standards should be assigned a low priority under section 3.

(2) *Public comment and hearing.* There will be 75 days for public comment on the ANOPR with at least one public hearing or workshop.

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

If major changes are required at this stage, interested parties and experts will be given an opportunity to review the revised analysis.

(d) *Analysis of impacts and selection of proposed standard level.* After the ANOPR, economic analyses of the impacts of the candidate standard levels will be conducted. The Department will propose updated standards based on the results of the impact analysis.

(1) *Identification of issues for analysis.* The Department, in consultation with interested parties, will identify issues that will be examined in the impacts analysis.

(2) *Identification of analytical methods and tools.* DOE, in consultation with outside experts, 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.

(3) *Analysis of impacts.* DOE will conduct the analysis of the impacts of candidate standard levels including analysis of the factors described in paragraphs (d)(7)(ii)–(viii) of this section.

(4) *Review by expert group and stakeholders.* The results of the analysis of impacts will be distributed for review by experts and interested parties. If appropriate, a public workshop will be conducted to review these results. The analysis will be revised as appropriate on the basis of this input.

(5) *Efforts to develop consensus among stakeholders.* If a representative group of interested parties undertakes to develop joint recommendations to the Department on standards, DOE will consider deferring its impact analysis until these discussions are completed or until participants in the efforts indicate that they are unable to reach a timely agreement.

(6) *Selection of proposed standard level based on analysis of impacts.* On the basis of the analysis of the factors described in paragraph (d)(7) of this section and the policies stated in section 5(e), DOE will select a proposed standard level.

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

(i) Consensus stakeholder recommendations.

(ii) 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 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 impact on manufacturing capacity, plant closures, and loss of capital investment.

(iii) Impacts on consumers. The analysis of consumer impacts will include: Estimated impacts on consumers based on national average energy prices and energy usage; assessments of impacts on subgroups of consumers based on major regional differences in usage or energy prices and significant variations in installation costs or performance; sensitivity analyses using high and low discount rates and high and low energy price forecasts; consideration of changes to product utility 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.

(iv) Impacts on competition.

(v) Impacts on utilities. The analysis of utility impacts will include estimated marginal impacts on electric and gas utility costs and revenues.

(vi) 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; and estimates of the direct and indirect impacts on employment by appliance manufacturers, relevant service industries, energy suppliers and the economy in general.

(vii) Impacts on the environment and energy security. The analysis of environmental and energy security impacts will include estimated impacts on emissions of carbon and relevant criteria pollutants, impacts on pollution control costs, and impacts on oil use.

(viii) 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 efficiency, usage and related characteristics in the absence of updated efficiency standards.

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

(e) *Notice of Proposed Rulemaking.*

(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 will distribute a draft TSD documenting the analysis of impacts. As required by § 325(p)(2) 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 75 days for public comment on the NOPR, with at least one public hearing or workshop.

(3) *Revisions to impact analyses and selection of final standard.* Based on the public comments received and the policies stated in section 5(f), 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, interested parties and experts will be given an opportunity to review the revised analyses.

(f) *Notice of Final Rulemaking.* The Department will publish a Notice of Final Rulemaking in the Federal Register that promulgates standard levels and explains the basis for the selection of those standards, accompanied by a final TSD.

5. Policies on Selection of Standards.

(a) *Purpose.* (1) Section 4 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 section 325 of the EPCA, 42 U.S.C. 6295.

(2) The policies described below are intended to provide guidance for making the determinations required by EPCA. This statement of policy is not intended to preclude consideration of any information pertinent to the statutory criteria. The Department will consider all pertinent information in determining whether a new or revised standard is consistent with the statutory criteria. Moreover, the Department will not be guided by a policy in this section if, in the particular circumstances presented, such a policy would lead to a result inconsistent with the criteria in section 325 of EPCA.

(b) *Screening design options.* Section 4(a)(4) lists factors to be considered in 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 working 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 effective date of the standard, then that technology will not be considered further.

(3) *Impacts on product utility to consumers.* If a technology is determined to have significant adverse impact on the utility of the product to significant 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.

(c) *Identification of candidate standard levels.* Based on the results of the engineering and cost and 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 which have payback periods that exceed the average life of the product or which cause life-cycle cost increases relative to the base case, using typical fuel costs, usage and 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 paragraph (b) of this section, 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 ANOPR 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) *Advance notice of proposed rulemaking.* New information provided in public comments on the ANOPR will be considered to determine whether any changes to the candidate standard levels are needed before proceeding to the analysis of impacts. This review, and any appropriate adjustments, will be based on the policies in paragraph (c) of this section.

(e) *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. Section 4(d)(7) lists the factors to be considered in selecting a proposed standard level. Section 325(o)(2)(A) of EPCA provides that any new or revised standard must be designed to achieve the maximum improvement in energy efficiency that is determined to be technologically feasible and economically justified.

(1) *Statutory policies.* The fundamental policies concerning selection of standards are

established in the EPCA, including the following:

(i) A candidate standard level will not be proposed or promulgated if the Department determines that it is not technologically feasible and economically justified. See EPCA section 325(o)(3)(B). A standard level is economically justified if the benefits exceed the burdens. See EPCA section 325(o)(2)(B)(i). A standard level is rebuttably presumed to be economically justified if the payback period is three years or less. See EPCA section 325(o)(2)(B)(iii).

(ii) If the Department determines that a standard level is likely to 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, that standard level will not be proposed. See EPCA section 325(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. See EPCA section 325(o)(3)(B).

(2) *Selection of proposed standard on the basis of consensus stakeholder recommendations.*

Development of consensus proposals for new or revised standards is an effective mechanism for balancing the economic, energy, and environmental interests affected by standards. Thus, notwithstanding any other policy on selection of proposed standards, a consensus recommendation on an updated efficiency level submitted by a group that represents all interested parties will be proposed by the Department if it is determined to meet the statutory criteria.

(3) *Considerations in assessing economic justification.*

(i) The following policies will guide the application of the economic justification criterion in selecting a proposed standard:

(A) If the Department determines that a candidate standard level would result in a negative return on investment for the industry, would significantly reduce the value of the industry, or would cause significant adverse impacts to a significant subgroup of manufacturers (including small manufacturing businesses), that standard level will be presumed not to be economically justified unless the Department determines that specifically identified expected benefits of the standard would outweigh this and any other expected adverse effects.

(B) If the Department determines that a candidate standard level would be the direct cause of plant closures, significant losses in domestic manufacturer employment, or significant losses of capital investment by domestic manufacturers, that standard level will be presumed not to be economically justified unless the Department determines that specifically identified expected benefits of the standard would outweigh this and any other expected adverse effects.

(C) If the Department determines that a candidate standard level would have a significant adverse impact on the environment or energy security, that standard level will be presumed not to be

economically justified unless the Department determines that specifically identified expected benefits of the standard would outweigh this and any other expected adverse effects.

(D) If the Department determines that a candidate standard level would not result in significant energy conservation relative to non-regulatory approaches, that standard level will be presumed not to be economically justified unless the Department determines that other specifically identified expected benefits of the standard would outweigh the expected adverse effects.

(E) If the Department determines that a candidate standard level is not consistent with the policies relating to practicability to manufacture, consumer utility, or safety in paragraphs (b) (2), (3) and (4) of this section, that standard level will be presumed not to be economically justified unless the Department determines that specifically identified expected benefits of the standard would outweigh this and any other expected adverse effects.

(F) If the Department determines that a candidate standard level is not consistent with the policies relating to consumer costs in paragraph (c)(1) of this section, that standard level will be presumed not to be economically justified unless the Department determines that specifically identified expected benefits of the standard would outweigh this and any other expected adverse effects.

(G) If the Department determines that a candidate standard level will have significant adverse impacts on a significant subgroup of consumers (including low-income consumers), that standard level will be presumed not to be economically justified unless the Department determines that specifically identified expected benefits of the standard would outweigh this and any other expected adverse effects.

(H) If the Department or the Department of Justice determines that a candidate standard level would have significant anticompetitive effects, that standard level will be presumed not to be economically justified unless the Department determines that specifically identified expected benefits of the standard would outweigh this and any other expected adverse effects.

(ii) The basis for a determination that triggers any presumption in paragraph (e)(3)(i) of this section and the basis for a determination that an applicable presumption has been rebutted will be supported by substantial evidence in the record and the evidence and rationale for making these determinations will be explained in the NOPR.

(iii) If none of the policies in paragraph (e)(3)(i) of this section is found to be dispositive, the Department will determine whether the benefits of a candidate standard level exceed the burdens considering all the pertinent information in the record.

(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 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 section 5(e) above, will be used to guide the selection of the final standard level.

6. *Effective Date of a Standard*

The effective date for new or revised standards will be established so that the period between the publication of the final rule and the effective date is not less than any period between the dates for publication and effective date provided for in EPCA. The effective date of any revised standard will be established so that the period between the effective date of the prior standard and the effective date of such revised standard is not less than period between the two effective dates provided for in EPCA.

7. *Test Procedures*

(a) *Identifying the need to modify test procedures.* DOE, in consultation with interested parties, experts, and the National Institute of Standards and Technology, will attempt to identify any necessary modifications to established test procedures when initiating the standards development process.

(b) *Developing and proposing revised test procedures.* Needed modifications to test procedures will be identified in consultation with experts and interested parties early in the screening stage of the standards development process. Any necessary modifications will be proposed before issuance of an ANOPR in the standards development process.

(c) *Issuing final test procedure modification.* Final, modified test procedures will be issued prior to the NOPR on proposed standards.

(d) *Effective date of modified test procedures.* If required only for the evaluation and issuance of updated efficiency standards, modified test procedures typically will not go into effect until the effective date of updated standards.

8. *Joint Stakeholder Recommendations*

(a) *Joint recommendations.* Consensus recommendations, and supporting analyses, submitted by a representative group of interested parties will be given substantial weight by DOE in the development of a proposed rule. See section 5(e)(2). If the supporting analyses provided by the group addresses all of the statutory criteria and uses valid economic assumptions and analytical methods, DOE expects to use this supporting analyses as the basis of a proposed rule. The proposed rule will explain any deviations from the consensus recommendations from interested parties.

(b) *Breadth of participation.* Joint recommendations will be of most value to the Department if the participants are reasonably representative of those interested in the outcome of the standards development process, including manufacturers, consumers, utilities, states and representatives of environmental or energy efficiency interest groups.

(c) *DOE support of consensus development, including impact analyses.* In order to facilitate such consensus development, DOE will make available, upon

request, appropriate technical and legal support to the group and will provide copies of all relevant public documents and analyses. The Department also will consider any requests for its active participation in such discussions, recognizing that the procedural requirements of the Federal Advisory Committee Act may apply to such participation.

9. *Principles for the Conduct of Engineering Analysis*

(a) The purpose of the engineering analysis is to develop the relationship between efficiency and cost of the subject product. The Department will use the most appropriate means available to determine the efficiency/cost relationship, including an overall system approach or engineering modeling to predict the improvement in efficiency that can be expected from individual design options as discussed in the paragraphs below. From this efficiency/cost relationship, measures such as payback, life cycle cost, and energy savings can be developed. The Department, in consultation with interested parties, will identify issues that will be examined in the engineering analysis and the types of specialized expertise that may be required. With these specifications, DOE will select appropriate contractors, subcontractors, and expert consultants, as necessary, to perform the engineering analysis and the impact analysis. Also, the Department will consider data, information and analyses received from interested parties for use in the analysis wherever feasible.

(b) The engineering analysis begins with the list of design options developed in consultation with the interested parties as a result of the screening process. In consultation with the technology/industry expert peer review group, the Department will establish the likely cost and performance improvement of each design option. Ranges and uncertainties of cost and performance will be established, although efforts will be made to minimize uncertainties by using measures such as test data or component or material supplier information where available. Estimated uncertainties will be carried forward in subsequent analyses. The use of quantitative models will be supplemented by qualitative assessments as appropriate.

(c) The next step includes identifying, modifying or developing any engineering models necessary to predict the efficiency impact of any one or combination of design options on the product. A base case configuration or starting point will be established as well as the order and combination/blending of the design options to be evaluated. The DOE, utilizing expert consultants, will then perform the engineering analysis and develop the cost efficiency curve for the product. The cost efficiency curve and any necessary models will be subject to peer review before being issued with the ANOPR.

10. *Principles for the Analysis of Impacts on Manufacturers*

(a) *Purpose.* The purpose of the manufacturer analysis is to identify the likely

impacts of efficiency standards on manufacturers. The Department will analyze the impact of standards on manufacturers with substantial input from manufacturers and other interested parties. The use of quantitative models will be supplemented by qualitative assessments by industry experts. This section describes the principles that will be used in conducting future manufacturing impact analysis.

(b) *Issue identification.* In the impact analysis stage (section 4(d)), the Department, in consultation with interested parties, will identify issues that will require greater consideration in the detailed manufacturer impact analysis. Possible issues may include identification of specific types or groups of manufacturers and concerns over access to technology. Specialized contractor expertise, empirical data requirements, and analytical tools required to perform the manufacturer impact analysis also would be identified at this stage.

(c) *Industry characterization.* Prior to initiating detailed impact studies, the Department will seek input on the present and past industry structure and market characteristics. Input on the following issues will be sought:

(1) Manufacturers and their relative market shares;

(2) Manufacturer characteristics, such as whether manufacturers make a full line of models or serve a niche market;

(3) Trends in the number of manufacturers;

(4) Financial situation of manufacturers;

(5) Trends in product characteristics and retail markets; and

(6) Identification of other relevant regulatory actions and a description of the nature and timing of any likely impacts.

(d) *Cost impacts on manufacturers.* The costs of labor, material, engineering, tooling, and capital are difficult to estimate, manufacturer-specific, and usually proprietary. The Department will seek input from interested parties on the treatment of cost issues. Manufacturers will be encouraged to offer suggestions as to possible sources of data and appropriate data collection methodologies. Costing issues to be addressed include:

(1) Estimates of total cost impacts, including product-specific costs (based on cost impacts estimated for the engineering analysis) and front-end investment/conversion costs for the full range of product models.

(2) Range of uncertainties in estimates of average cost, considering alternative designs and technologies which may vary cost impacts and changes in costs of material, labor and other inputs which may vary costs.

(3) Variable cost impacts on particular types of manufacturers, considering factors such as atypical sunk costs or characteristics of specific models which may increase or decrease costs.

(e) *Impacts on product sales, features, prices and cost recovery.* In order to make manufacturer cash flow calculations, it is necessary to predict the number of products sold and their sale price. This requires an assessment of the likely impacts of price changes on the number of products sold and on typical features of models sold. Past

analyses have relied on price and shipment data generated by economic models. The Department will develop additional estimates of prices and shipments by drawing on multiple sources of data and experience including: actual shipment and pricing experience, data from manufacturers, retailers and other market experts, financial models, and sensitivity analyses. The possible impacts of candidate standard levels on consumer choices among competing fuels will be explicitly considered where relevant.

(f) *Measures of impact.* The manufacturer impact analysis will estimate the impacts of candidate standard levels on the net cash flow of manufacturers. Computations will be performed for the industry as a whole and for typical and atypical manufacturers. The exact nature and the process by which the analysis will be conducted will be determined by DOE, in conjunction with interested parties. Impacts to be analyzed include:

(1) Industry net present value, with sensitivity analyses based on uncertainty of costs, sales prices and sales volumes;

(2) Cash flows, by year;

(3) Other measures of impact, such as revenue, net income and return on equity, as appropriate;

The characteristics of atypical manufacturers worthy of special consideration will be determined in consultation with manufacturers and other interested parties and may include: manufacturers incurring higher or lower than average costs; and manufacturers experiencing greater or fewer adverse impacts on sales. Alternative scenarios based on other methods of estimating cost or sales impacts also will be performed, as needed.

(g) *Cumulative impacts of other Federal regulatory actions.* (1) The Department will recognize and seek to mitigate the overlapping effects on manufacturers of new or revised DOE standards and other regulatory actions affecting the same products. DOE will analyze and consider the impact on manufacturers of multiple product-specific regulatory actions. These factors will be considered in setting rulemaking priorities, assessing manufacturer impacts of a particular standard, and establishing the effective date for a new or revised standard. In particular, DOE will seek to propose effective dates for new or revised standards that are appropriately coordinated with other regulatory actions to mitigate any cumulative burden.

(2) If the Department determines that a proposed standard would impose a significant impact on product manufacturers within three years of the effective date of another DOE standard that imposes significant impacts on the same manufacturers (or divisions thereof, as appropriate), the Department will, in addition to evaluating the impact on manufacturers of the proposed standard, assess the joint impacts of both standards on manufacturers.

(3) If the Department is directed to establish or revise standards for products that are components of other products subject to standards, the Department will consider the interaction between such standards in setting rulemaking priorities and assessing

manufacturer impacts of a particular standard. The Department will assess, as part of the engineering and impact analyses, the cost of components subject to efficiency standards.

(h) *Summary of quantitative and qualitative assessments.* The summary of quantitative and qualitative assessments will contain a description and discussion of uncertainties. Alternative estimates of impacts, resulting from the different potential scenarios developed throughout the analysis, will be explicitly presented in the final analysis results.

(i) *Key modeling and analytical tools.* In its assessment of the likely impacts of standards on manufacturers, the Department will use models which are clear and understandable, feature accessible calculations, and have assumptions that are clearly explained. As a starting point, the Department will use the Government Regulatory Impact Model (GRIM). The Department will consider any enhancements to the GRIM that are suggested by interested parties. If changes are made to the GRIM methodology, DOE will provide notice and seek public input. The Department will also support the development of economic models for price and volume forecasting. Research required to update key economic data will be considered.

11. 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 to the consumer. See section 4(a).

(b) *Impacts on product 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 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. DOE will not promulgate a standard if it concludes that it would result in such unavailability.

(c) *Department of justice review.* As required by law, the Department will solicit the views of the Justice Department on any lessening of competition that is likely to result from the imposition of a proposed standard and will give the views provided full consideration in assessing economic justification of a proposed standard. In addition, DOE may consult with the Department of Justice at earlier stages in the standards development process to seek to obtain preliminary views on competitive impacts.

(d) *Variation in consumer impacts.* The Department will use regional analysis and sensitivity analysis tools, as appropriate, to evaluate the potential distribution of impacts of candidate standards levels among different subgroups of consumers. The Department will consider impacts on significant segments

of consumers in determining standards levels. Where there are significant negative impacts on identifiable subgroups, DOE will consider the efficacy of voluntary approaches as a means to achieve potential energy savings.

(e) *Payback period and first cost.* (1) In the assessment of consumer impacts of standards, the Department will consider Life-Cycle Cost, Payback Period and Cost of Conserved Energy to evaluate the savings in operating expenses relative to increases in purchase price. The Department intends to increase the level of sensitivity analysis and scenario analysis for future rulemakings. The results of these analyses will be carried throughout the analysis and the ensuing uncertainty described.

(2) If, in the analysis of consumer impacts, the Department determines that a candidate standard level would result in a substantial increase in the product first costs to consumers or would not pay back such additional first costs through energy cost savings in less than three years, Department will specifically assess the likely impacts of such a standard on low-income households, product sales and fuel switching.

12. Consideration of Non-Regulatory Approaches

(a) The Department recognizes that voluntary or other non-regulatory efforts by manufacturers, utilities and other interested parties can result in substantial efficiency improvements. The Department intends to consider fully the likely effects of non-regulatory initiatives on product energy use, consumer utility and life cycle costs, manufacturers, competition, utilities and the environment, as well as the distribution of these impacts among different regions, consumers, manufacturers and utilities. DOE will attempt to base its assessment on the actual impacts of such initiatives to date, but also will consider information presented regarding the impacts that any existing initiative might have in the future. Such information is likely to include a demonstration of the strong commitment of manufacturers, distribution channels, utilities or others to such voluntary efficiency improvements. This information will be used in assessing the likely incremental impacts of establishing or revising standards, in assessing appropriate effective dates for new or revised standards and in considering DOE support of non-regulatory initiatives.

(b) DOE believes that non-regulatory approaches are valuable complements to the standards program. In particular, DOE will consider pursuing voluntary programs where it appears that highly efficient products can

obtain a significant market share but less efficient products cannot be eliminated altogether because, for instance, of unacceptable adverse impacts on a significant subgroup of consumers. In making this assessment, the Department will consider the success more efficient designs have had in the market, their acceptance to date, and their potential market penetration.

13. Crosscutting Analytical Assumptions

In selecting values for certain crosscutting analytical assumptions, DOE expects to continue relying upon the following sources and general principles:

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

(b) *Energy price and demand trends.* Analyses of the likely impact of appliance standards on typical users will generally adopt the mid-range energy price and demand scenario of the EIA's most current AEO. The sensitivity of such estimated impacts to possible variations in future energy prices are likely to be examined using the EIA's high and low energy price scenarios.

(c) *Product-specific energy-efficiency trends, without updated standards.* Product specific energy-efficiency trends will be based on a combination of the efficiency trends forecast by the EIA's residential and commercial demand model of the National Energy Modeling System (NEMS) and product-specific assessments by DOE and its contractors with input from interested parties.

(d) *Discount rates.* For residential and commercial consumers, ranges of three different real discount rates will be used. For residential consumers, the mid-range discount rate will represent DOE's approximation of the average financing cost (or opportunity costs of reduced savings) experienced by typical consumers. Sensitivity analyses will be performed using discount rates reflecting the costs more likely to be experienced by residential consumers with little or no savings and credit card financing and consumers with substantial savings. For commercial users, a mid-range discount rate reflecting the DOE's approximation of the average real rate of return on commercial investment will be used, with sensitivity analyses being performed using values indicative of the range of real rates of return likely to be experienced by typical commercial

businesses. For national net present value calculations, DOE would use the Administration's approximation of the average real rate of return on private investment in the U.S. economy. For manufacturer impacts, DOE plans to use a range of real discount rates which are representative of the real rates of return experienced by typical U.S. manufacturers affected by the program.

(e) *Environmental impacts.* The emission rates of carbon, sulfur oxides and nitrogen oxides used by DOE to calculate the physical quantities of emissions likely to be avoided by candidate standard levels will be based on the current average carbon emissions of the U.S. electric utilities and on the projected rates of emissions of sulfur and nitrogen oxides. Projected rates of emissions, if available, will be used for the estimation of any other environmental impacts. The Department will consider the effects of the proposed standards on these emissions in reaching a decision about whether the benefits of the proposed standards exceed their burdens but will not determine the monetary value of these environmental externalities.

14. Deviations, Revisions, and Judicial Review

(a) *Deviations.* This Appendix specifies procedures, interpretations and policies for the development of new or revised energy efficiency standards in considerable detail. As the approach described in this Appendix is applied to the development of particular standards, the Department may find it necessary or appropriate to deviate from these procedures, interpretations or policies. If the Department concludes that such deviations are necessary or appropriate in a particular situation, DOE will provide interested parties with notice of the deviation and an explanation.

(b) *Revisions.* If the Department concludes that changes to the procedures, interpretations or policies in this Appendix are necessary or appropriate, DOE will provide notice in the Federal Register of modifications to this Appendix with an accompanying explanation. DOE expects to consult with interested parties prior to any such modification.

(c) *Judicial review.* The procedures, interpretations, and policies stated in this Appendix are not intended to establish any new cause of action or right to judicial review.

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