

November 8, 2019

Department of Energy Appliance and Equipment Standards Program

Congress continues to consider the extent and effectiveness of energy efficiency standards. One focus is energy efficiency standards for appliances and equipment.

Overview

The Department of Energy's (DOE's) Appliance and Equipment Standards Program sets minimum energy efficiency standards for approximately 60 product categories. The program was authorized in 1975 by the Energy Policy and Conservation Act (EPCA, P.L. 94-163, 42 U.S.C. §§6291–6317). Congress has amended EPCA multiple times, with the significant legislative action related to energy efficiency listed in **Table 1**. Title III of EPCA, as amended, includes minimum efficiency standards for consumer products and certain industrial equipment.

Table 1. Chronology of Significant Legislative Action for the Appliance and Equipment Standards Program

Date	Action
December 22, 1975	Energy Policy and Conservation Act (P.L. 94-163)
November 9, 1978	National Energy Conservation Policy Act (P.L. 95-619)
March 17, 1987	National Appliance Energy Conservation Act of 1987 (P.L. 100-12)
June 28, 1988	National Appliance Energy Conservation Amendments of 1988 (P.L. 100-357)
October 24, 1992	Energy Policy Act of 1992 (P.L. 102-486)
August 8, 2005	Energy Policy Act of 2005 (EPACT 2005) (P.L. 109-58)
December 19, 2007	Energy Independence and Security Act of 2007 (EISA 2007) (P.L. 110-140)
December 18, 2012	American Energy Manufacturing Technical Corrections Act (P.L. 112-210)

Source: Adapted from DOE, <https://energy.gov/eere/buildings/statutory-rules-and-authorities>.

Notes: This is not an exhaustive list of laws that amended the appliance and equipment standards program.

Covered Products and Covered Equipment

Energy conservation standards are applicable to covered products and covered equipment as specified in EPCA. Covered products are those consumer products that are listed in 42 U.S.C. §6292(a) and include refrigerators, kitchen ranges and ovens, water heaters, dishwashers, clothes washers and dryers, television sets, general service incandescent lamps, and showerheads. The Secretary may classify additional consumer products as covered products if necessary and the average annual per-household energy use by such product is likely to exceed 100 kilowatt-hours per year (42 U.S.C. §6292(b)).

Covered equipment includes industrial equipment that is listed in 42 U.S.C. §6311(1). Specified equipment includes electric motors and pumps, commercial refrigerators, automatic commercial ice makers, walk-in freezers, and commercial clothes washers. If necessary, the Secretary also may include component parts of consumer products as industrial equipment and any other type of industrial equipment as covered equipment (42 U.S.C. §6312).

Test Procedures

Congress specified test procedures for certain products (42 U.S.C. §6293) and equipment (42 U.S.C. §6314) and authorized DOE to prescribe test procedures. DOE is required to review test procedures for covered products and equipment at least once every seven years.

Energy Efficiency Standards

DOE is required to review energy efficiency standards of covered products (42 U.S.C. §6295(m)(1)) and covered equipment (42 U.S.C. §6313(a)(6)(C))) no later than six years after issuance of a final rule. Within this timeframe, DOE is required to either publish a determination that a standard does not need amending or a notice of proposed rulemaking (NOPR) including a new proposed standard.

New standards must result in significant conservation of energy, be technologically feasible, and be economically justified. "Economically justified" typically includes the economic impact of the standard on the manufacturers and consumers, the savings in operating costs throughout the life of the product, and the total projected amount of energy savings likely to result from the standard.

A new or amended standard may not increase the maximum allowable energy use (or water use, as appropriate), or decrease the maximum required energy efficiency of a covered product (42 U.S.C. §6295(o)) or covered equipment (42 U.S.C. §6313(a)(6)(B)(iii)).

Standards Development Process

The rulemaking process for developing and revising standards typically takes about three years to complete and consists of four phases: framework, preliminary analysis, NOPR, and issuance of a final rule.

DOE makes documents available and seeks comments through all phases until issuance of a final rule. For the framework, preliminary analysis, and NOPR phases, DOE solicits public comment and often holds public meetings that may allow for remote participation. In the framework phase, DOE presents the approach and legal authority for the process and poses questions to stakeholders. The preliminary analysis phase incorporates available information and presents initial determinations to inform the proposed rule. The framework phase and preliminary analysis phase are not required by statute. Once DOE issues a final rule, the rule typically requires compliance from manufacturers within 3 to 5 years.

Variations to Rulemaking Process

There are variations to the above rulemaking process. DOE may start the process at the preliminary analysis phase or NOPR phase if it has the necessary data and information to conduct its analysis. In lieu of the rulemaking process, DOE may publish a direct final rule that establishes energy conservation standards submitted jointly by stakeholders that “are fairly representative of relevant points of view” (42 U.S.C. §6295(p)(4)).

In addition to these variations, small manufacturers, as defined in 42 U.S.C §6295(t), may apply for a temporary exemption of no more than 24 months after the effective date of the rule. The temporary exemption may apply to all or part of an energy conservation standard.

Compliance and Enforcement

DOE requires manufacturers of covered products and equipment to submit a certification report of energy performance before a basic model is distributed in commerce, and annually thereafter. DOE conducts selected testing through third-party laboratories to verify energy efficiency performance.

DOE also engages in enforcement activities. Conservation standards cases focus on manufacturers that distribute products in the United States that, according to DOE, do not meet required energy standards. Compliance certification cases focus on manufacturers that either have submitted invalid compliance certifications or have not certified that the products have been tested and meet the applicable energy conservation standards.

Other federal agencies also have roles in energy efficiency enforcement. The Environmental Protection Agency enforces compliance with product specifications under the ENERGY STAR program. The Federal Trade Commission enforces requirements that the EnergyGuide label represents the performance of appliances.

Federal Preemption

Federal energy conservation standards, test procedures, and label requirements generally supersede state requirements.

DOE is authorized to grant a waiver of federal preemption for “unusual and compelling State or local energy or water interests” (42 U.S.C. §6297).

DOE Proposed Changes to Rulemaking

On February 13, 2019, DOE proposed changes to the rulemaking procedures for standards and test procedures, or “Process Rule.” (84 *Federal Register (FR)* 3910) For standards, DOE would establish a “threshold” for energy-saving that must be met to update or create a standard, among other changes. The energy-saving “threshold” would require a standard to save 0.5 quadrillion Btu (quads) over 30 years or to save 10% of the total site energy used by a product or equipment type. According to DOE, of the 57 product/equipment standards that DOE set, the average national site energy savings is 0.96 quad, and the average percent reduction in national site energy use is 13%. Thirty-two of the 57 standards set by DOE would meet one of the proposed threshold conditions. The proposed rule would also add a requirement that test procedures be established at least 180 days before a related standard.

DOE also proposed changes to test procedures. DOE would be required to adopt industry standards for test procedures—without modification—unless such standards would be “unduly burdensome” or would not produce results that reflect the energy efficiency, energy use, and estimated operating costs of a product during average use.

On May 1, 2019, DOE proposed changes to the test procedure interim waiver process (84 *FR* 18414). If adopted, the proposed rule would require DOE to respond in writing to an applicant (typically a manufacturer) within 30 days. If DOE does not respond within the 30 days, the interim waiver request would be considered granted, and would remain in effect until a decision is published or until DOE publishes a new or amended test procedure.

On September 5, 2019, DOE withdrew revised definitions pertaining to light bulbs that were to go into effect on January 1, 2020 (84 *FR* 46830). These definitions would have extended energy efficiency standards to a broader set of light bulbs (82 *FR* 6826, January 19, 2017).

Issues for Congress

Congress is evaluating the potential effects of proposed changes to DOE’s Appliance and Equipment Standards Program. In addition, Congress is addressing standards through legislation. The House Energy and Commerce Committee held a hearing on March 7, 2019, regarding DOE’s missed statutory deadlines for updating 16 appliance standards. DOE’s proposed rulemaking changes, if implemented, could result in fewer updates to standards as updates would depend upon whether an energy-saving threshold would be met. Proposed changes to the test procedure interim waiver process could provide flexibility for manufacturers but could also result in slower adoption of standards. In the 116th Congress, H.R. 105 would repeal energy conservation standards and rescind the authority for DOE and states to set energy conservation standards.

Corrie E. Clark, Analyst in Energy Policy

Disclaimer

This document was prepared by the Congressional Research Service (CRS). CRS serves as nonpartisan shared staff to congressional committees and Members of Congress. It operates solely at the behest of and under the direction of Congress. Information in a CRS Report should not be relied upon for purposes other than public understanding of information that has been provided by CRS to Members of Congress in connection with CRS's institutional role. CRS Reports, as a work of the United States Government, are not subject to copyright protection in the United States. Any CRS Report may be reproduced and distributed in its entirety without permission from CRS. However, as a CRS Report may include copyrighted images or material from a third party, you may need to obtain the permission of the copyright holder if you wish to copy or otherwise use copyrighted material.