

and not less than annually, estimate and make available to the public the relative water and energy savings attributable to the use of WaterSense-labeled products, buildings, landscapes, facilities, processes, and services.

**(d) Distinction of authorities**

In setting or maintaining specifications and criteria for Energy Star pursuant to section 6294a of this title, and WaterSense under this section, the Secretary of Energy and the Administrator of the Environmental Protection Agency shall coordinate to prevent duplicative or conflicting requirements among the respective programs.

**(e) No warranty**

A WaterSense label shall not create any express or implied warranty.

**(f) Methods for establishing performance criteria**

In establishing performance criteria for products, buildings, landscapes, facilities, processes, or services pursuant to this section, the Administrator of the Environmental Protection Agency shall use technical specifications and testing protocols established by voluntary consensus standards organizations relevant to specific products, buildings, landscapes, facilities, processes, or services, as appropriate.

**(g) Definition of feasible**

The term “feasible” means feasible with the use of the best technology, techniques, and other means that the Administrator of the Environmental Protection Agency finds, after examination for efficacy under field conditions and not solely under laboratory conditions, are available (taking cost into consideration).

(Pub. L. 94-163, title III, §324B, as added Pub. L. 115-270, title IV, § 4306(a), Oct. 23, 2018, 132 Stat. 3884.)

**§ 6295. Energy conservation standards**

**(a) Purposes**

The purposes of this section are to—

- (1) provide Federal energy conservation standards applicable to covered products; and
- (2) authorize the Secretary to prescribe amended or new energy conservation standards for each type (or class) of covered product.

**(b) Standards for refrigerators, refrigerator-freezers, and freezers**

(1) The following is the maximum energy use allowed in kilowatt hours per year for the following products (other than those described in paragraph (2)) manufactured on or after January 1, 1990:

	Energy Standards Equations
Refrigerators and Refrigerator-Freezers with manual defrost .....	16.3 AV+316
Refrigerator-Freezers—partial automatic defrost .....	21.8 AV+429
Refrigerator-Freezers—automatic defrost with:	
Top mounted freezer without ice ...	23.5 AV+471
Side mounted freezer without ice ...	27.7 AV+488
Bottom mounted freezer without ice .....	27.7 AV+488

	Energy Standards Equations
Top mounted freezer with through the door ice service .....	26.4 AV+535
Side mounted freezer with through the door ice .....	30.9 AV+547
Upright Freezers with:	
Manual defrost .....	10.9 AV+422
Automatic defrost .....	16.0 AV+623
Chest Freezers and all other freezers ...	14.8 AV+223

(2) The standards described in paragraph (1) do not apply to refrigerators and refrigerator-freezers with total refrigerated volume exceeding 39 cubic feet or freezers with total refrigerated volume exceeding 30 cubic feet.

(3)(A)(i) The Secretary shall publish a proposed rule, no later than July 1, 1988, to determine if the standards established by paragraph (1) should be amended. The Secretary shall publish a final rule no later than July 1, 1989, which shall contain such amendment, if any, and provide that the amendment shall apply to products manufactured on or after January 1, 1993. If such a final rule is not published before January 1, 1990, any amendment of such standards shall apply to products manufactured on or after January 1, 1995. Nothing in this subsection provides any justification or defense for a failure by the Secretary to comply with the nondiscretionary duty to publish final rules by the dates stated in this paragraph.

(ii)(I) If the Secretary does not publish a final rule before January 1, 1990, relating to the revision of the energy conservation standards for refrigerators, refrigerator-freezers and freezers, the regulations which established standards for such products and were promulgated by the California Energy Commission on December 14, 1984, to be effective January 1, 1992 (or any amendments to such standards that are not more stringent than the standards in the original regulations), shall apply in California to such products, effective beginning January 1, 1993, and shall not be preempted after such effective date by any energy conservation standard established in this section or prescribed, on or after January 1, 1990, under this section.

(II) If the Secretary does not publish a final rule before January 1, 1992, relating to the revision of the energy conservation standards for refrigerators, refrigerator-freezers and freezers, State regulations which apply to such products manufactured on or after January 1, 1995, shall apply to such products until the effective date of a rule issued under this section with respect to such products.

(B) After the publication of a final rule under subparagraph (A), the Secretary shall publish a final rule no later than five years after the date of publication of the previous final rule. The Secretary shall determine in such rule whether to amend the standards in effect for the products described in paragraph (1).

(C) Any amendment prescribed under subparagraph (B) shall apply to products manufactured after a date which is five years after—

- (i) the effective date of the previous amendment; or
- (ii) if the previous final rule did not amend the standards, the earliest date by which the previous amendment could have been effective;

except that in no case may any amended standard apply to products manufactured within three years after publication of the final rule establishing such amended standard.

(4) REFRIGERATORS AND FREEZERS MANUFACTURED ON OR AFTER JANUARY 1, 2014.—

(A) IN GENERAL.—Not later than December 31, 2010, the Secretary shall publish a final rule determining whether to amend the standards in effect for refrigerators, refrigerator-freezers, and freezers manufactured on or after January 1, 2014.

(B) AMENDED STANDARDS.—The final rule shall contain any amended standards.

**(c) Standards for room air conditioners**

(1) The energy efficiency ratio of room air conditioners shall be not less than the following for products manufactured on or after January 1, 1990:

Product Class:	Ratio
Without Reverse Cycle and With Louvered Sides:	
Less than 6,000 Btu .....	8.0
6,000 to 7,999 Btu .....	8.5
8,000 to 13,999 Btu .....	9.0
14,000 to 19,999 Btu .....	8.8
20,000 and more Btu .....	8.2
Without Reverse Cycle and Without Louvered Sides:	
Less than 6,000 Btu .....	8.0
6,000 to 7,999 Btu .....	8.5
8,000 to 13,999 Btu .....	8.5
14,000 to 19,999 Btu .....	8.5
20,000 and more Btu .....	8.2
With Reverse Cycle and With Louvered Sides	8.5
With Reverse Cycle, Without Louvered Sides	8.0

(2)(A) The Secretary shall publish a final rule no later than January 1, 1992, to determine if the standards established under paragraph (1) should be amended. Such rule shall contain such amendment, if any, and provide that the amendment shall apply to products manufactured on or after January 1, 1995.

(B) After January 1, 1992, the Secretary shall publish a final rule no later than five years after the date of publication of a previous final rule. The Secretary shall determine in such rule whether to amend the standards in effect for room air conditioners.

(C) Any amendment prescribed under subparagraph (B) shall apply to products manufactured after a date which is five years after—

- (i) the effective date of the previous amendment; or
- (ii) if the previous final rule did not amend the standards, the earliest date by which a previous amendment could have been effective;

except that in no case may any amended standard apply to products manufactured within three years after publication of the final rule establishing such amended standard.

**(d) Standards for central air conditioners and heat pumps**

(1) The seasonal energy efficiency ratio of central air conditioners and central air conditioning heat pumps shall be not less than the following:

(A) Split Systems: 10.0 for products manufactured on or after January 1, 1992.

(B) Single Package Systems: 9.7 for products manufactured on or after January 1, 1993.

(2) The heating seasonal performance factor of central air conditioning heat pumps shall be not less than the following:

(A) Split Systems: 6.8 for products manufactured on or after January 1, 1992.

(B) Single Package Systems: 6.6 for products manufactured on or after January 1, 1993.

(3)(A) The Secretary shall publish a final rule no later than January 1, 1994, to determine whether the standards established under paragraph (1) should be amended. Such rule shall contain such amendment, if any, and provide that the amendment shall apply to products manufactured on or after January 1, 1999. The Secretary shall publish a final rule no later than January 1, 1994, to determine whether the standards established under paragraph (2) shall be amended. Such rule shall contain such amendment, if any, and provide that the amendment shall apply to products manufactured on or after January 1, 2002.

(B) The Secretary shall publish a final rule after January 1, 1994, and no later than January 1, 2001, to determine whether the standards in effect for central air conditioners and central air conditioning heat pumps should be amended. Such rule shall provide that any amendment shall apply to products manufactured on or after January 1, 2006.

(4) STANDARDS FOR THROUGH-THE-WALL CENTRAL AIR CONDITIONERS, THROUGH-THE-WALL CENTRAL AIR CONDITIONING HEAT PUMPS, AND SMALL DUCT, HIGH VELOCITY SYSTEMS.—

(A) DEFINITIONS.—In this paragraph:

(i) SMALL DUCT, HIGH VELOCITY SYSTEM.—The term “small duct, high velocity system” means a heating and cooling product that contains a blower and indoor coil combination that—

(I) is designed for, and produces, at least 1.2 inches of external static pressure when operated at the certified air volume rate of 220–350 CFM per rated ton of cooling; and

(II) when applied in the field, uses high velocity room outlets generally greater than 1,000 fpm that have less than 6.0 square inches of free area.

(ii) THROUGH-THE-WALL CENTRAL AIR CONDITIONER; THROUGH-THE-WALL CENTRAL AIR CONDITIONING HEAT PUMP.—The terms “through-the-wall central air conditioner” and “through-the-wall central air conditioning heat pump” mean a central air conditioner or heat pump, respectively, that is designed to be installed totally or partially within a fixed-size opening in an exterior wall, and—

(I) is not weatherized;

(II) is clearly and permanently marked for installation only through an exterior wall;

(III) has a rated cooling capacity no greater than 30,000 Btu/hr;

(IV) exchanges all of its outdoor air across a single surface of the equipment cabinet; and

(V) has a combined outdoor air exchange area of less than 800 square inches (split systems) or less than 1,210 square inches

(single packaged systems) as measured on the surface area described in subclause (IV).

(iii) REVISION.—The Secretary may revise the definitions contained in this subparagraph through publication of a final rule.

(B) SMALL-DUCT HIGH-VELOCITY SYSTEMS.—

(i) SEASONAL ENERGY EFFICIENCY RATIO.—The seasonal energy efficiency ratio for small-duct high-velocity systems shall be not less than—

(I) 11.00 for products manufactured on or after January 23, 2006; and

(II) 12.00 for products manufactured on or after January 1, 2015.

(ii) HEATING SEASONAL PERFORMANCE FACTOR.—The heating seasonal performance factor for small-duct high-velocity systems shall be not less than—

(I) 6.8 for products manufactured on or after January 23, 2006; and

(II) 7.2 for products manufactured on or after January 1, 2015.

(C) SUBSEQUENT RULEMAKINGS.—The Secretary shall conduct subsequent rulemakings for through-the-wall central air conditioners, through-the-wall central air conditioning heat pumps, and small duct, high velocity systems as part of any rulemaking under this section used to review or revise standards for other central air conditioners and heat pumps.

(e) Standards for water heaters; pool heaters; direct heating equipment

(1) The energy factor of water heaters shall be not less than the following for products manufactured on or after January 1, 1990:

(A) Gas Water Heater:	.62—(.0019 x Rated Storage Volume in gallons)	
(B) Oil Water Heater:	.59—(.0019 x Rated Storage Volume in gallons)	
(C) Electric Water Heater:	.95—(.00132 x Rated Storage Volume in gallons)	

(2) The thermal efficiency of pool heaters manufactured on or after January 1, 1990, shall not be less than 78 percent.

(3) The efficiencies of gas direct heating equipment manufactured on or after January 1, 1990, shall be not less than the following:

Wall		
Fan type		
Up to 42,000 Btu/hour	.....	73% AFUE
Over 42,000 Btu/hour	.....	74% AFUE
Gravity type		
Up to 10,000 Btu/hour	.....	59% AFUE
Over 10,000 Btu/hour up to 12,000 Btu/hour	.....	60% AFUE
Over 12,000 Btu/hour up to 15,000 Btu/hour	.....	61% AFUE
Over 15,000 Btu/hour up to 19,000 Btu/hour	.....	62% AFUE
Over 19,000 Btu/hour up to 27,000 Btu/hour	.....	63% AFUE
Over 27,000 Btu/hour up to 46,000 Btu/hour	.....	64% AFUE
Over 46,000 Btu/hour	.....	65% AFUE
Floor		
Up to 37,000 Btu/hour	.....	56% AFUE
Over 37,000 Btu/hour	.....	57% AFUE
Room		
Up to 18,000 Btu/hour	.....	57% AFUE

Over 18,000 Btu/hour up to 20,000 Btu/hour	.....	58% AFUE
Over 20,000 Btu/hour up to 27,000 Btu/hour	.....	63% AFUE
Over 27,000 Btu/hour up to 46,000 Btu/hour	.....	64% AFUE
Over 46,000 Btu/hour	.....	65% AFUE

(4)(A) The Secretary shall publish final rules no later than January 1, 1992, to determine whether the standards established by paragraph (1), (2), or (3) for water heaters, pool heaters, and direct heating equipment should be amended. Such rule shall provide that any amendment shall apply to products manufactured on or after January 1, 1995.

(B) The Secretary shall publish a final rule no later than January 1, 2000, to determine whether standards in effect for such products should be amended. Such rule shall provide that any such amendment shall apply to products manufactured on or after January 1, 2005.

(5) UNIFORM EFFICIENCY DESCRIPTOR FOR COVERED WATER HEATERS.—

(A) DEFINITIONS.—In this paragraph:

(i) COVERED WATER HEATER.—The term “covered water heater” means—

(I) a water heater; and

(II) a storage water heater, instantaneous water heater, and unfired hot water storage tank (as defined in section 6311 of this title).

(ii) FINAL RULE.—The term “final rule” means the final rule published under this paragraph.

(B) PUBLICATION OF FINAL RULE.—Not later than 1 year after December 18, 2012, the Secretary shall publish a final rule that establishes a uniform efficiency descriptor and accompanying test methods for covered water heaters.

(C) PURPOSE.—The purpose of the final rule shall be to replace with a uniform efficiency descriptor—

(i) the energy factor descriptor for water heaters established under this subsection; and

(ii) the thermal efficiency and standby loss descriptors for storage water heaters, instantaneous water heaters, and unfired water storage tanks established under section 6313(a)(5) of this title.

(D) EFFECT OF FINAL RULE.—

(i) IN GENERAL.—Notwithstanding any other provision of this subchapter, effective beginning on the effective date of the final rule, the efficiency standard for covered water heaters shall be denominated according to the efficiency descriptor established by the final rule.

(ii) EFFECTIVE DATE.—The final rule shall take effect 1 year after the date of publication of the final rule under subparagraph (B).

(E) CONVERSION FACTOR.—

(i) IN GENERAL.—The Secretary shall develop a mathematical conversion factor for converting the measurement of efficiency for covered water heaters from the test procedures in effect on December 18, 2012, to the new energy descriptor established under the final rule.

(ii) APPLICATION.—The conversion factor shall apply to models of covered water heaters affected by the final rule and tested prior to the effective date of the final rule.

(iii) EFFECT ON EFFICIENCY REQUIREMENTS.—The conversion factor shall not affect the minimum efficiency requirements for covered water heaters otherwise established under this subchapter.

(iv) USE.—During the period described in clause (v), a manufacturer may apply the conversion factor established by the Secretary to rerate existing models of covered water heaters that are in existence prior to the effective date of the rule described in clause (v)(II) to comply with the new efficiency descriptor.

(v) PERIOD.—Clause (iv) shall apply during the period—

(I) beginning on the date of publication of the conversion factor in the Federal Register; and

(II) ending on the later of 1 year after the date of publication of the conversion factor, or December 31, 2015.

(F) EXCLUSIONS.—The final rule may exclude a specific category of covered water heaters from the uniform efficiency descriptor established under this paragraph if the Secretary determines that the category of water heaters—

(i) does not have a residential use and can be clearly described in the final rule; and

(ii) are<sup>1</sup> effectively rated using the thermal efficiency and standby loss descriptors applied (as of December 18, 2012) to the category under section 6313(a)(5) of this title.

(G) OPTIONS.—The descriptor set by the final rule may be—

(i) a revised version of the energy factor descriptor in use as of December 18, 2012;

(ii) the thermal efficiency and standby loss descriptors in use as of that date;

(iii) a revised version of the thermal efficiency and standby loss descriptors;

(iv) a hybrid of descriptors; or

(v) a new approach.

(H) APPLICATION.—The efficiency descriptor and accompanying test method established under the final rule shall apply, to the maximum extent practicable, to all water heating technologies in use as of December 18, 2012, and to future water heating technologies.

(I) PARTICIPATION.—The Secretary shall invite interested stakeholders to participate in the rulemaking process used to establish the final rule.

(J) TESTING OF ALTERNATIVE DESCRIPTORS.—In establishing the final rule, the Secretary shall contract with the National Institute of Standards and Technology, as necessary, to conduct testing and simulation of alternative descriptors identified for consideration.

(K) EXISTING COVERED WATER HEATERS.—A covered water heater shall be considered to comply with the final rule on and after the effective date of the final rule and with any revised labeling requirements established by the

Federal Trade Commission to carry out the final rule if the covered water heater—

(i) was manufactured prior to the effective date of the final rule; and

(ii) complied with the efficiency standards and labeling requirements in effect prior to the final rule.

(6) ADDITIONAL STANDARDS FOR GRID-ENABLED WATER HEATERS.—

(A) DEFINITIONS.—In this paragraph:

(i) ACTIVATION LOCK.—The term “activation lock” means a control mechanism (either a physical device directly on the water heater or a control system integrated into the water heater) that is locked by default and contains a physical, software, or digital communication that must be activated with an activation key to enable the product to operate at its designed specifications and capabilities and without which activation the product will provide not greater than 50 percent of the rated first hour delivery of hot water certified by the manufacturer.

(ii) GRID-ENABLED WATER HEATER.—The term “grid-enabled water heater” means an electric resistance water heater that—

(I) has a rated storage tank volume of more than 75 gallons;

(II) is manufactured on or after April 16, 2015;

(III) has—

(aa) an energy factor of not less than 1.061 minus the product obtained by multiplying—

(AA) the rated storage volume of the tank, expressed in gallons; and

(BB) 0.00168; or

(bb) an equivalent alternative standard prescribed by the Secretary and developed pursuant to paragraph (5)(E);

(IV) is equipped at the point of manufacture with an activation lock; and

(V) bears a permanent label applied by the manufacturer that—

(aa) is made of material not adversely affected by water;

(bb) is attached by means of non-water-soluble adhesive; and

(cc) advises purchasers and end-users of the intended and appropriate use of the product with the following notice printed in 16.5 point Arial Narrow Bold font:

“IMPORTANT INFORMATION: This water heater is intended only for use as part of an electric thermal storage or demand response program. It will not provide adequate hot water unless enrolled in such a program and activated by your utility company or another program operator. Confirm the availability of a program in your local area before purchasing or installing this product.”

(B) REQUIREMENT.—The manufacturer or private labeler shall provide the activation key for a grid-enabled water heater only to a utility or other company that operates an electric thermal storage or demand response program that uses such a grid-enabled water heater.

(C) REPORTS.—

<sup>1</sup> So in original. Probably should be “is”.

(i) **MANUFACTURERS.**—The Secretary shall require each manufacturer of grid-enabled water heaters to report to the Secretary annually the quantity of grid-enabled water heaters that the manufacturer ships each year.

(ii) **OPERATORS.**—The Secretary shall require utilities and other demand response and thermal storage program operators to report annually the quantity of grid-enabled water heaters activated for their programs using forms of the Energy Information Agency or using such other mechanism that the Secretary determines appropriate after an opportunity for notice and comment.

(iii) **CONFIDENTIALITY REQUIREMENTS.**—The Secretary shall treat shipment data reported by manufacturers as confidential business information.

**(D) PUBLICATION OF INFORMATION.**—

(i) **IN GENERAL.**—In 2017 and 2019, the Secretary shall publish an analysis of the data collected under subparagraph (C) to assess the extent to which shipped products are put into use in demand response and thermal storage programs.

(ii) **PREVENTION OF PRODUCT DIVERSION.**—If the Secretary determines that sales of grid-enabled water heaters exceed by 15 percent or greater the quantity of such products activated for use in demand response and thermal storage programs annually, the Secretary shall, after opportunity for notice and comment, establish procedures to prevent product diversion for non-program purposes.

**(E) COMPLIANCE.**—

(i) **IN GENERAL.**—Subparagraphs (A) through (D) shall remain in effect until the Secretary determines under this section that—

(I) grid-enabled water heaters do not require a separate efficiency requirement; or  
 (II) sales of grid-enabled water heaters exceed by 15 percent or greater the quantity of such products activated for use in demand response and thermal storage programs annually and procedures to prevent product diversion for non-program purposes would not be adequate to prevent such product diversion.

(ii) **EFFECTIVE DATE.**—If the Secretary exercises the authority described in clause (i) or amends the efficiency requirement for grid-enabled water heaters, that action will take effect on the date described in subsection (m)(4)(A)(ii).

(iii) **CONSIDERATION.**—In carrying out this section with respect to electric water heaters, the Secretary shall consider the impact on thermal storage and demand response programs, including any impact on energy savings, electric bills, peak load reduction, electric reliability, integration of renewable resources, and the environment.

(iv) **REQUIREMENTS.**—In carrying out this paragraph, the Secretary shall require that grid-enabled water heaters be equipped with communication capability to enable the grid-enabled water heaters to participate in ancillary services programs if the Secretary

determines that the technology is available, practical, and cost-effective.

**(f) Standards for furnaces and boilers**

(1) Furnaces (other than furnaces designed solely for installation in mobile homes) manufactured on or after January 1, 1992, shall have an annual fuel utilization efficiency of not less than 78 percent, except that—

(A) boilers (other than gas steam boilers) shall have an annual fuel utilization efficiency of not less than 80 percent and gas steam boilers shall have an annual fuel utilization efficiency of not less than 75 percent; and

(B) the Secretary shall prescribe a final rule not later than January 1, 1989, establishing an energy conservation standard—

(i) which is for furnaces (other than furnaces designed solely for installation in mobile homes) having an input of less than 45,000 Btu per hour and manufactured on or after January 1, 1992;

(ii) which provides that the annual fuel utilization efficiency of such furnaces shall be a specific percent which is not less than 71 percent and not more than 78 percent; and

(iii) which the Secretary determines is not likely to result in a significant shift from gas heating to electric resistance heating with respect to either residential construction or furnace replacement.

(2) Furnaces which are designed solely for installation in mobile homes and which are manufactured on or after September 1, 1990, shall have an annual fuel utilization efficiency of not less than 75 percent.

**(3) BOILERS.**—

(A) **IN GENERAL.**—Subject to subparagraphs (B) and (C), boilers manufactured on or after September 1, 2012, shall meet the following requirements:

Boiler Type	Minimum Annual Fuel Utilization Efficiency	Design Requirements
Gas Hot Water ..	82%	No Constant Burning Pilot, Automatic Means for Adjusting Water Temperature
Gas Steam .....	80%	No Constant Burning Pilot
Oil Hot Water ....	84%	Automatic Means for Adjusting Temperature
Oil Steam .....	82%	None
Electric Hot Water.	None	Automatic Means for Adjusting Temperature
Electric Steam ..	None	None

**(B) AUTOMATIC MEANS FOR ADJUSTING WATER TEMPERATURE.**—

(i) **IN GENERAL.**—The manufacturer shall equip each gas, oil, and electric hot water

boiler (other than a boiler equipped with a tankless domestic water heating coil) with automatic means for adjusting the temperature of the water supplied by the boiler to ensure that an incremental change in inferred heat load produces a corresponding incremental change in the temperature of water supplied.

(ii) SINGLE INPUT RATE.—For a boiler that fires at 1 input rate, the requirements of this subparagraph may be satisfied by providing an automatic means that allows the burner or heating element to fire only when the means has determined that the inferred heat load cannot be met by the residual heat of the water in the system.

(iii) NO INFERRED HEAT LOAD.—When there is no inferred heat load with respect to a hot water boiler, the automatic means described in clauses (i) and (ii) shall limit the temperature of the water in the boiler to not more than 140 degrees Fahrenheit.

(iv) OPERATION.—A boiler described in clause (i) or (ii) shall be operable only when the automatic means described in clauses (i), (ii), and (iii) is installed.

(C) EXCEPTION.—A boiler that is manufactured to operate without any need for electricity or any electric connection, electric gauges, electric pumps, electric wires, or electric devices shall not be required to meet the requirements of this paragraph.

(4)(A) The Secretary shall publish a final rule no later than January 1, 1992, to determine whether the standards established by paragraph (2) for mobile home furnaces should be amended. Such rule shall provide that any amendment shall apply to products manufactured on or after January 1, 1994.

(B) The Secretary shall publish a final rule no later than January 1, 1994, to determine whether the standards established by this subsection for furnaces (including mobile home furnaces) should be amended. Such rule shall provide that any amendment shall apply to products manufactured on or after January 1, 2002.

(C) After January 1, 1997, and before January 1, 2007, the Secretary shall publish a final rule to determine whether standards in effect for such products should be amended. Such rule shall contain such amendment, if any, and provide that any amendment shall apply to products manufactured on or after January 1, 2012.

(D) Notwithstanding any other provision of this chapter, if the requirements of subsection (o) are met, not later than December 31, 2013, the Secretary shall consider and prescribe energy conservation standards or energy use standards for electricity used for purposes of circulating air through duct work.

**(g) Standards for dishwashers; clothes washers; clothes dryers; fluorescent lamp ballasts**

(1) Dishwashers manufactured on or after January 1, 1988, shall be equipped with an option to dry without heat.

(2) All rinse cycles of clothes washers shall include an unheated water option, but may have a heated water rinse option, for products manufactured on or after January 1, 1988.

(3) Gas clothes dryers shall not be equipped with a constant burning pilot for products manufactured on or after January 1, 1988.

(4)(A) The Secretary shall publish final rules no later than January 1, 1990, to determine if the standards established under this subsection for products described in paragraphs (1), (2), and (3) should be amended. Such rules shall provide that any amendment shall apply to products the manufacture of which is completed on or after January 1, 1993.

(B) After January 1, 1990, the Secretary shall publish a final rule no later than five years after the date of publication of the previous final rule. The Secretary shall determine in such rule whether to amend the standards in effect for such products.

(C) Any such amendment shall apply to products manufactured after a date which is five years after—

(i) the effective date of the previous amendment; or

(ii) if the previous final rule did not amend the standard, the earliest date by which a previous amendment could have been in effect;

except that in no case may any amended standard apply to products manufactured within three years after publication of the final rule establishing such standard.

(5) Except as provided in paragraph (6), each fluorescent lamp ballast—

(A)(i) manufactured on or after January 1, 1990;

(ii) sold by the manufacturer on or after April 1, 1990; or

(iii) incorporated into a luminaire by a luminaire manufacturer on or after April 1, 1991; and

(B) designed—

(i) to operate at nominal input voltages of 120 or 277 volts;

(ii) to operate with an input current frequency of 60 Hertz; and

(iii) for use in connection with an F40T12, F96T12, or F96T12HO lamps;

shall have a power factor of 0.90 or greater and shall have a ballast efficacy factor not less than the following:

Application for Operation of	Ballast Input Voltage	Total Nominal Lamp Watts	Ballast Efficacy Factor
one F40T12 lamp	120	40	1.805
	277	40	1.805
two F40T12 lamps .....	120	80	1.060
	277	80	1.050
two F96T12 lamps .....	120	150	0.570
	277	150	0.570
two F96T12HO lamps .....	120	220	0.390
	277	220	0.390

(6) The standards described in paragraph (5) do not apply to (A) a ballast which is designed for dimming or for use in ambient temperatures of 0° F or less, or (B) a ballast which has a power factor of less than 0.90 and is designed and labeled for use only in residential building applications.

(7)(A) The Secretary shall publish a final rule no later than January 1, 1992, to determine if the

standards established under paragraph (5) should be amended, including whether such standards should be amended so that they would be applicable to ballasts described in paragraph (6) and other fluorescent lamp ballasts. Such rule shall contain such amendment, if any, and provide that the amendment shall apply to products manufactured on or after January 1, 1995.

(B) After January 1, 1992, the Secretary shall publish a final rule no later than five years after the date of publication of a previous final rule. The Secretary shall determine in such rule whether to amend the standards in effect for fluorescent lamp ballasts, including whether such standards should be amended so that they would be applicable to additional fluorescent lamp ballasts.

(C) Any amendment prescribed under subparagraph (B) shall apply to products manufactured after a date which is five years after—

- (i) the effective date of the previous amendment; or
- (ii) if the previous final rule did not amend the standards, the earliest date by which a previous amendment could have been effective;

except that in no case may any amended standard apply to products manufactured within three years after publication of the final rule establishing such amended standard.

(8)(A) Each fluorescent lamp ballast (other than replacement ballasts or ballasts described in subparagraph (C))—

- (i)(I) manufactured on or after July 1, 2009;
- (II) sold by the manufacturer on or after October 1, 2009; or
- (III) incorporated into a luminaire by a luminaire manufacturer on or after July 1, 2010; and

- (ii) designed—
  - (I) to operate at nominal input voltages of 120 or 277 volts;
  - (II) to operate with an input current frequency of 60 Hertz; and
  - (III) for use in connection with F34T12 lamps, F96T12/ES lamps, or F96T12HO/ES lamps;

shall have a power factor of 0.90 or greater and shall have a ballast efficacy factor of not less than the following:

Application for operation of	Ballast input voltage	Total nominal lamp watts	Ballast efficacy factor
One F34T12 lamp	120/277	34	2.61
Two F34T12 lamps	120/277	68	1.35
Two F96T12/ES lamps	120/277	120	0.77
Two F96T12HO/ES lamps	120/277	190	0.42.

(B) The standards described in subparagraph (A) shall apply to all ballasts covered by subparagraph (A)(ii) that are manufactured on or after July 1, 2010, or sold by the manufacturer on or after October 1, 2010.

(C) The standards described in subparagraph (A) do not apply to—

- (i) a ballast that is designed for dimming to 50 percent or less of the maximum output of the ballast;
- (ii) a ballast that is designed for use with 2 F96T12HO lamps at ambient temperatures of

negative 20°F or less and for use in an outdoor sign; or

- (iii) a ballast that has a power factor of less than 0.90 and is designed and labeled for use only in residential applications.

(9) RESIDENTIAL CLOTHES WASHERS MANUFACTURED ON OR AFTER JANUARY 1, 2011.—

(A) IN GENERAL.—A top-loading or front-loading standard-size residential clothes washer manufactured on or after January 1, 2011, shall have—

- (i) a Modified Energy Factor of at least 1.26; and
- (ii) a water factor of not more than 9.5.

(B) AMENDMENT OF STANDARDS.—

(i) IN GENERAL.—Not later than December 31, 2011, the Secretary shall publish a final rule determining whether to amend the standards in effect for clothes washers manufactured on or after January 1, 2015.

(ii) AMENDED STANDARDS.—The final rule shall contain any amended standards.

(10) RESIDENTIAL DISHWASHERS MANUFACTURED ON OR AFTER JANUARY 1, 2010.—

(A) IN GENERAL.—A dishwasher manufactured on or after January 1, 2010, shall—

- (i) for a standard size dishwasher not exceed 355 kWh/year and 6.5 gallons per cycle; and
- (ii) for a compact size dishwasher not exceed 260 kWh/year and 4.5 gallons per cycle.

(B) AMENDMENT OF STANDARDS.—

(i) IN GENERAL.—Not later than January 1, 2015, the Secretary shall publish a final rule determining whether to amend the standards for dishwashers manufactured on or after January 1, 2018.

(ii) AMENDED STANDARDS.—The final rule shall contain any amended standards.

**(h) Standards for kitchen ranges and ovens**

(1) Gas kitchen ranges and ovens having an electrical supply cord shall not be equipped with a constant burning pilot for products manufactured on or after January 1, 1990.

(2)(A) The Secretary shall publish a final rule no later than January 1, 1992, to determine if the standards established for kitchen ranges and ovens in this subsection should be amended. Such rule shall contain such amendment, if any, and provide that the amendment shall apply to products manufactured on or after January 1, 1995.

(B) The Secretary shall publish a final rule no later than January 1, 1997, to determine whether standards in effect for such products should be amended. Such rule shall apply to products manufactured on or after January 1, 2000.

**(i) General service fluorescent lamps, general service incandescent lamps, intermediate base incandescent lamps, candelabra base incandescent lamps, and incandescent reflector lamps**

(1) STANDARDS.—

(A) DEFINITION OF EFFECTIVE DATE.—In this paragraph (other than subparagraph (D)), the term “effective date” means, with respect to each type of lamp specified in a table contained in subparagraph (B), the last day of the

period of months corresponding to that type of lamp (as specified in the table) that follows October 24, 1992.

(B) MINIMUM STANDARDS.—Each of the following general service fluorescent lamps and

incandescent reflector lamps manufactured after the effective date specified in the tables contained in this paragraph shall meet or exceed the following lamp efficacy and CRI standards:

FLUORESCENT LAMPS

Lamp Type	Nominal Lamp Wattage	Minimum CRI	Minimum Average Lamp Efficacy (LPW)	Effective Date (Period of Months)
4-foot medium bi-pin .....	>35 W	69	75.0	36
	≤35 W	45	75.0	36
2-foot U-shaped .....	>35 W	69	68.0	36
	≤35 W	45	64.0	36
8-foot slimline .....	65 W	69	80.0	18
	≤65 W	45	80.0	18
8-foot high output .....	>100 W	69	80.0	18
	≤100 W	45	80.0	18

INCANDESCENT REFLECTOR LAMPS

Nominal Lamp Wattage	Minimum Average Lamp Efficacy (LPW)	Effective Date (Period of Months)
40-50 .....	10.5	36
51-66 .....	11.0	36
67-85 .....	12.5	36
86-115 .....	14.0	36
116-155 .....	14.5	36
156-205 .....	15.0	36

(C) EXEMPTIONS.—The standards specified in subparagraph (B) shall not apply to the following types of incandescent reflector lamps:

- (i) Lamps rated at 50 watts or less that are ER30, BR30, BR40, or ER40 lamps.
- (ii) Lamps rated at 65 watts that are BR30, BR40, or ER40 lamps.
- (iii) R20 incandescent reflector lamps rated 45 watts or less.

(D) EFFECTIVE DATES.—

(i) ER, BR, AND BPAR LAMPS.—The standards specified in subparagraph (B) shall apply with respect to ER incandescent reflector lamps, BR incandescent reflector lamps, BPAR incandescent reflector lamps, and similar bulb shapes on and after January 1, 2008.

(ii) LAMPS BETWEEN 2.25-2.75 INCHES IN DIAMETER.—The standards specified in subparagraph (B) shall apply with respect to incandescent reflector lamps with a diameter of more than 2.25 inches, but not more than 2.75 inches, on and after the later of January 1, 2008, or the date that is 180 days after December 19, 2007.

(2) Notwithstanding section 6302(a)(5) of this title and section 6302(b) of this title, it shall not be unlawful for a manufacturer to sell a lamp which is in compliance with the law at the time such lamp was manufactured.

(3) Not less than 36 months after October 24, 1992, the Secretary shall initiate a rulemaking procedure and shall publish a final rule not later than the end of the 54-month period beginning on October 24, 1992, to determine if the standards established under paragraph (1) should be amended. Such rule shall contain such amendment, if any, and provide that the amendment

shall apply to products manufactured on or after the 36-month period beginning on the date such final rule is published.

(4) Not less than eight years after October 24, 1992, the Secretary shall initiate a rulemaking procedure and shall publish a final rule not later than nine years and six months after October 24, 1992, to determine if the standards in effect for fluorescent lamps and incandescent lamps should be amended. Such rule shall contain such amendment, if any, and provide that the amendment shall apply to products manufactured on or after the 36-month period beginning on the date such final rule is published.

(5) Not later than the end of the 24-month period beginning on the date labeling requirements under section 6294(a)(2)(C)<sup>2</sup> of this title become effective, the Secretary shall initiate a rulemaking procedure to determine if the standards in effect for fluorescent lamps and incandescent lamps should be amended so that they would be applicable to additional general service fluorescent<sup>3</sup> and shall publish, not later than 18 months after initiating such rulemaking, a final rule including such amended standards, if any. Such rule shall provide that the amendment shall apply to products manufactured after a date which is 36 months after the date such rule is published.

(6) STANDARDS FOR GENERAL SERVICE LAMPS.—

(A) RULEMAKING BEFORE JANUARY 1, 2014.—

(i) IN GENERAL.—Not later than January 1, 2014, the Secretary shall initiate a rulemaking procedure to determine whether—

(I) standards in effect for general service lamps should be amended to establish more stringent standards than the standards specified in paragraph (1)(A); and

(II) the exemptions for certain incandescent lamps should be maintained or discontinued based, in part, on exempted lamp sales collected by the Secretary from manufacturers.

(ii) SCOPE.—The rulemaking—

(I) shall not be limited to incandescent lamp technologies; and

<sup>2</sup> See References in Text note below.

<sup>3</sup> So in original. The word “lamps” probably should appear after “fluorescent”.



(II) shall include consideration of a minimum standard of 45 lumens per watt for general service lamps.

(iii) AMENDED STANDARDS.—If the Secretary determines that the standards in effect for general service incandescent lamps should be amended, the Secretary shall publish a final rule not later than January 1, 2017, with an effective date that is not earlier than 3 years after the date on which the final rule is published.

(iv) PHASED-IN EFFECTIVE DATES.—The Secretary shall consider phased-in effective dates under this subparagraph after considering—

(I) the impact of any amendment on manufacturers, retiring and repurposing existing equipment, stranded investments, labor contracts, workers, and raw materials; and

(II) the time needed to work with retailers and lighting designers to revise sales and marketing strategies.

(v) BACKSTOP REQUIREMENT.—If the Secretary fails to complete a rulemaking in accordance with clauses (i) through (iv) or if the final rule does not produce savings that are greater than or equal to the savings from a minimum efficacy standard of 45 lumens per watt, effective beginning January 1, 2020, the Secretary shall prohibit the sale of any general service lamp that does not meet a minimum efficacy standard of 45 lumens per watt.

(vi) STATE PREEMPTION.—Neither section 6297(b) of this title nor any other provision of law shall preclude California or Nevada from adopting, effective beginning on or after January 1, 2018—

(I) a final rule adopted by the Secretary in accordance with clauses (i) through (iv);

(II) if a final rule described in subclause (I) has not been adopted, the backstop requirement under clause (v); or

(III) in the case of California, if a final rule described in subclause (I) has not been adopted, any California regulations relating to these covered products adopted pursuant to State statute in effect as of December 19, 2007.

(B) RULEMAKING BEFORE JANUARY 1, 2020.—

(i) IN GENERAL.—Not later than January 1, 2020, the Secretary shall initiate a rulemaking procedure to determine whether—

(I) standards in effect for general service incandescent lamps should be amended to reflect lumen ranges with more stringent maximum wattage than the standards specified in paragraph (1)(A); and

(II) the exemptions for certain incandescent lamps should be maintained or discontinued based, in part, on exempted lamp sales data collected by the Secretary from manufacturers.

(ii) SCOPE.—The rulemaking shall not be limited to incandescent lamp technologies.

(iii) AMENDED STANDARDS.—If the Secretary determines that the standards in effect for general service incandescent lamps

should be amended, the Secretary shall publish a final rule not later than January 1, 2022, with an effective date that is not earlier than 3 years after the date on which the final rule is published.

(iv) PHASED-IN EFFECTIVE DATES.—The Secretary shall consider phased-in effective dates under this subparagraph after considering—

(I) the impact of any amendment on manufacturers, retiring and repurposing existing equipment, stranded investments, labor contracts, workers, and raw materials; and

(II) the time needed to work with retailers and lighting designers to revise sales and marketing strategies.

(7)(A) With respect to any lamp to which standards are applicable under this subsection or any lamp specified in section 6317 of this title, the Secretary shall inform any Federal entity proposing actions which would adversely impact the energy consumption or energy efficiency of such lamp of the energy conservation consequences of such action. It shall be the responsibility of such Federal entity to carefully consider the Secretary's comments.

(B) Notwithstanding subsection (n)(1), the Secretary shall not be prohibited from amending any standard, by rule, to permit increased energy use or to decrease the minimum required energy efficiency of any lamp to which standards are applicable under this subsection if such action is warranted as a result of other Federal action (including restrictions on materials or processes) which would have the effect of either increasing the energy use or decreasing the energy efficiency of such product.

(8) Not later than the date on which standards established pursuant to this subsection become effective, or, with respect to high-intensity discharge lamps covered under section 6317 of this title, the effective date of standards established pursuant to such section, each manufacturer of a product to which such standards are applicable shall file with the Secretary a laboratory report certifying compliance with the applicable standard for each lamp type. Such report shall include the lumen output and wattage consumption for each lamp type as an average of measurements taken over the preceding 12-month period. With respect to lamp types which are not manufactured during the 12-month period preceding the date such standards become effective, such report shall be filed with the Secretary not later than the date which is 12 months after the date manufacturing is commenced and shall include the lumen output and wattage consumption for each such lamp type as an average of measurements taken during such 12-month period.

**(j) Standards for showerheads and faucets**

(1) The maximum water use allowed for any showerhead manufactured after January 1, 1994, is 2.5 gallons per minute when measured at a flowing water pressure of 80 pounds per square inch. Any such showerhead shall also meet the requirements of ASME/ANSI A112.18.1M-1989, 7.4.3(a).

(2) The maximum water use allowed for any of the following faucets manufactured after Janu-

ary 1, 1994, when measured at a flowing water pressure of 80 pounds per square inch, is as follows:

Lavatory faucets .....	2.5 gallons per minute
Lavatory replacement aerators .....	2.5 gallons per minute
Kitchen faucets .....	2.5 gallons per minute
Kitchen replacement aerators .....	2.5 gallons per minute
Metering faucets .....	0.25 gallons per cycle

(3)(A) If the maximum flow rate requirements or the design requirements of ASME/ANSI Standard A112.18.1M-1989 are amended to improve the efficiency of water use of any type or class of showerhead or faucet and are approved by ANSI, the Secretary shall, not later than 12 months after the date of such amendment, publish a final rule establishing an amended uniform national standard for that product at the level specified in the amended ASME/ANSI Standard A112.18.1M and providing that such standard shall apply to products manufactured after a date which is 12 months after the publication of such rule, unless the Secretary determines, by rule published in the Federal Register, that adoption of a uniform national standard at the level specified in such amended ASME/ANSI Standard A112.18.1M—

- (i) is not technologically feasible and economically justified under subsection (o);
- (ii) is not consistent with the maintenance of public health and safety; or
- (iii) is not consistent with the purposes of this chapter.

(B)(i) As part of the rulemaking conducted under subparagraph (A), the Secretary shall also determine if adoption of a uniform national standard for any type or class of showerhead or faucet more stringent than such amended ASME/ANSI Standard A112.18.1M—

- (I) would result in additional conservation of energy or water;
- (II) would be technologically feasible and economically justified under subsection (o); and
- (III) would be consistent with the maintenance of public health and safety.

(ii) If the Secretary makes an affirmative determination under clause (i), the final rule published under subparagraph (A) shall waive the provisions of section 6297(c) of this title with respect to any State regulation concerning the water use or water efficiency of such type or class of showerhead or faucet if such State regulation—

- (I) is more stringent than amended ASME/ANSI Standard A112.18.1M for such type or class of showerhead or faucet and the standard in effect for such product on the day before the date on which a final rule is published under subparagraph (A); and
- (II) is applicable to any sale or installation of all products in such type or class of showerhead or faucet.

(C) If, after any period of five consecutive years, the maximum flow rate requirements of the ASME/ANSI standard for showerheads are not amended to improve the efficiency of water use of such products, or after any such period such requirements for faucets are not amended

to improve the efficiency of water use of such products, the Secretary shall, not later than six months after the end of such five-year period, publish a final rule waiving the provisions of section 6297(c) of this title with respect to any State regulation concerning the water use or water efficiency of such type or class of showerhead or faucet if such State regulation—

- (i) is more stringent than the standards in effect for such type of class of showerhead or faucet; and
- (ii) is applicable to any sale or installation of all products in such type or class of showerhead or faucet.

**(k) Standards for water closets and urinals**

(1)(A) Except as provided in subparagraph (B), the maximum water use allowed in gallons per flush for any of the following water closets manufactured after January 1, 1994, is the following:

Gravity tank-type toilets .....	1.6 gpf.
Flushometer tank toilets .....	1.6 gpf.
Electromechanical hydraulic toilets .....	1.6 gpf.
Blowout toilets .....	3.5 gpf.

(B) The maximum water use allowed for any gravity tank-type white 2-piece toilet which bears an adhesive label conspicuous upon installation consisting of the words “Commercial Use Only” manufactured after January 1, 1994, and before January 1, 1997, is 3.5 gallons per flush.

(C) The maximum water use allowed for flushometer valve toilets, other than blowout toilets, manufactured after January 1, 1997, is 1.6 gallons per flush.

(2) The maximum water use allowed for any urinal manufactured after January 1, 1994, is 1.0 gallon per flush.

(3)(A) If the maximum flush volume requirements of ASME Standard A112.19.6-1990 are amended to improve the efficiency of water use of any low consumption water closet or low consumption urinal and are approved by ANSI, the Secretary shall, not later than 12 months after the date of such amendment, publish a final rule establishing an amended uniform national standard for that product at the level specified in amended ASME/ANSI Standard A112.19.6 and providing that such standard shall apply to products manufactured after a date which is one year after the publication of such rule, unless the Secretary determines, by rule published in the Federal Register, that adoption of a uniform national standard at the level specified in such amended ASME/ANSI Standard A112.19.6—

- (i) is not technologically feasible and economically justified under subsection (o);
- (ii) is not consistent with the maintenance of public health and safety; or
- (iii) is not consistent with the purposes of this chapter.

(B)(i) As part of the rulemaking conducted under subparagraph (A), the Secretary shall also determine if adoption of a uniform national standard for any type or class of low consumption water closet or low consumption urinal more stringent than such amended ASME/ANSI Standard A112.19.6 for such product—

- (I) would result in additional conservation of energy or water;
- (II) would be technologically feasible and economically justified under subsection (o); and

(III) would be consistent with the maintenance of public health and safety.

(ii) If the Secretary makes an affirmative determination under clause (i), the final rule published under subparagraph (A) shall waive the provisions of section 6297(c) of this title with respect to any State regulation concerning the water use or water efficiency of such type or class of low consumption water closet or low consumption urinal if such State regulation—

(I) is more stringent than amended ASME/ANSI Standard A112.19.6 for such type or class of low consumption water closet or low consumption urinal and the standard in effect for such product on the day before the date on which a final rule is published under subparagraph (A); and

(II) is applicable to any sale or installation of all products in such type or class of low consumption water closet or low consumption urinal.

(C) If, after any period of five consecutive years, the maximum flush volume requirements of the ASME/ANSI standard for low consumption water closets are not amended to improve the efficiency of water use of such products, or after any such period such requirements for low consumption urinals are not amended to improve the efficiency of water use of such products, the Secretary shall, not later than six months after the end of such five-year period, publish a final rule waiving the provisions of section 6297(c) of this title with respect to any State regulation concerning the water use or water efficiency of such type or class of water closet or urinal if such State regulation—

(i) is more stringent than the standards in effect for such type or class of water closet or urinal; and

(ii) is applicable to any sale or installation of all products in such type or class of water closet or urinal.

**(I) Standards for other covered products**

(1) The Secretary may prescribe an energy conservation standard for any type (or class) of covered products of a type specified in paragraph (20) of section 6292(a) of this title if the requirements of subsections (o) and (p) are met and the Secretary determines that—

(A) the average per household energy use within the United States by products of such type (or class) exceeded 150 kilowatt-hours (or its Btu equivalent) for any 12-month period ending before such determination;

(B) the aggregate household energy use within the United States by products of such type (or class) exceeded 4,200,000,000 kilowatt-hours (or its Btu equivalent) for any such 12-month period;

(C) substantial improvement in the energy efficiency of products of such type (or class) is technologically feasible; and

(D) the application of a labeling rule under section 6294 of this title to such type (or class) is not likely to be sufficient to induce manufacturers to produce, and consumers and other persons to purchase, covered products of such type (or class) which achieve the maximum energy efficiency which is technologically feasible and economically justified.

(2) Any new or amended standard for covered products of a type specified in paragraph (20) of section 6292(a) of this title shall not apply to products manufactured within five years after the publication of a final rule establishing such standard.

(3) The Secretary may, in accordance with subsections (o) and (p), prescribe an energy conservation standard for television sets. Any such standard may not become effective with respect to products manufactured before January 1, 1992.

**(4) ENERGY EFFICIENCY STANDARDS FOR CERTAIN LAMPS.—**

(A) IN GENERAL.—The Secretary shall prescribe an energy efficiency standard for rough service lamps, vibration service lamps, 3-way incandescent lamps, 2,601–3,300 lumen general service incandescent lamps, and shatter-resistant lamps in accordance with this paragraph.

(B) BENCHMARKS.—Not later than 1 year after December 19, 2007, the Secretary, in consultation with the National Electrical Manufacturers Association, shall—

(i) collect actual data for United States unit sales for each of calendar years 1990 through 2006 for each of the 5 types of lamps described in subparagraph (A) to determine the historical growth rate of the type of lamp; and

(ii) construct a model for each type of lamp based on coincident economic indicators that closely match the historical annual growth rate of the type of lamp to provide a neutral comparison benchmark to model future unit sales after calendar year 2006.

**(C) ACTUAL SALES DATA.—**

(i) IN GENERAL.—Effective for each of calendar years 2010 through 2025, the Secretary, in consultation with the National Electrical Manufacturers Association, shall—

(I) collect actual United States unit sales data for each of 5 types of lamps described in subparagraph (A); and

(II) not later than 90 days after the end of each calendar year, compare the lamp sales in that year with the sales predicted by the comparison benchmark for each of the 5 types of lamps described in subparagraph (A).

**(ii) CONTINUATION OF TRACKING.—**

(I) DETERMINATION.—Not later than January 1, 2023, the Secretary shall determine if actual sales data should be tracked for the lamp types described in subparagraph (A) after calendar year 2025.

(II) CONTINUATION.—If the Secretary finds that the market share of a lamp type described in subparagraph (A) could significantly erode the market share for general service lamps, the Secretary shall continue to track the actual sales data for the lamp type.

**(D) ROUGH SERVICE LAMPS.—**

(i) IN GENERAL.—Effective beginning with the first year that the reported annual sales rate for rough service lamps demonstrates actual unit sales of rough service lamps that achieve levels that are at least 100 percent higher than modeled unit sales for that same year, the Secretary shall—

(I) not later than 90 days after the end of the previous calendar year, issue a finding that the index has been exceeded; and

(II) not later than the date that is 1 year after the end of the previous calendar year, complete an accelerated rulemaking to establish an energy conservation standard for rough service lamps.

(ii) BACKSTOP REQUIREMENT.—If the Secretary fails to complete an accelerated rulemaking in accordance with clause (i)(II), effective beginning 1 year after the date of the issuance of the finding under clause (i)(I), the Secretary shall require rough service lamps to—

(I) have a shatter-proof coating or equivalent technology that is compliant with NSF/ANSI 51 and is designed to contain the glass if the glass envelope of the lamp is broken and to provide effective containment over the life of the lamp;

(II) have a maximum 40-watt limitation; and

(III) be sold at retail only in a package containing 1 lamp.

(E) VIBRATION SERVICE LAMPS.—

(i) IN GENERAL.—Effective beginning with the first year that the reported annual sales rate for vibration service lamps demonstrates actual unit sales of vibration service lamps that achieve levels that are at least 100 percent higher than modeled unit sales for that same year, the Secretary shall—

(I) not later than 90 days after the end of the previous calendar year, issue a finding that the index has been exceeded; and

(II) not later than the date that is 1 year after the end of the previous calendar year, complete an accelerated rulemaking to establish an energy conservation standard for vibration service lamps.

(ii) BACKSTOP REQUIREMENT.—If the Secretary fails to complete an accelerated rulemaking in accordance with clause (i)(II), effective beginning 1 year after the date of the issuance of the finding under clause (i)(I), the Secretary shall require vibration service lamps to—

(I) have a maximum 40-watt limitation; and

(II) be sold at retail only in a package containing 1 lamp.

(F) 3-WAY INCANDESCENT LAMPS.—

(i) IN GENERAL.—Effective beginning with the first year that the reported annual sales rate for 3-way incandescent lamps demonstrates actual unit sales of 3-way incandescent lamps that achieve levels that are at least 100 percent higher than modeled unit sales for that same year, the Secretary shall—

(I) not later than 90 days after the end of the previous calendar year, issue a finding that the index has been exceeded; and

(II) not later than the date that is 1 year after the end of the previous calendar year, complete an accelerated rulemaking to establish an energy conservation standard for 3-way incandescent lamps.

(ii) BACKSTOP REQUIREMENT.—If the Secretary fails to complete an accelerated rulemaking in accordance with clause (i)(II), effective beginning 1 year after the date of issuance of the finding under clause (i)(I), the Secretary shall require that—

(I) each filament in a 3-way incandescent lamp meet the new maximum wattage requirements for the respective lumen range established under subsection (i)(1)(A)<sup>2</sup>; and

(II) 3-way lamps be sold at retail only in a package containing 1 lamp.

(G) 2,601–3,300 LUMEN GENERAL SERVICE INCANDESCENT LAMPS.—Effective beginning with the first year that the reported annual sales rate demonstrates actual unit sales of 2,601–3,300 lumen general service incandescent lamps in the lumen range of 2,601 through 3,300 lumens (or, in the case of a modified spectrum, in the lumen range of 1,951 through 2,475 lumens) that achieve levels that are at least 100 percent higher than modeled unit sales for that same year, the Secretary shall impose—

(i) a maximum 95-watt limitation on general service incandescent lamps in the lumen range of 2,601 through 3,300 lumens; and

(ii) a requirement that those lamps be sold at retail only in a package containing 1 lamp.

(H) SHATTER-RESISTANT LAMPS.—

(i) IN GENERAL.—Effective beginning with the first year that the reported annual sales rate for shatter-resistant lamps demonstrates actual unit sales of shatter-resistant lamps that achieve levels that are at least 100 percent higher than modeled unit sales for that same year, the Secretary shall—

(I) not later than 90 days after the end of the previous calendar year, issue a finding that the index has been exceeded; and

(II) not later than the date that is 1 year after the end of the previous calendar year, complete an accelerated rulemaking to establish an energy conservation standard for shatter-resistant lamps.

(ii) BACKSTOP REQUIREMENT.—If the Secretary fails to complete an accelerated rulemaking in accordance with clause (i)(II), effective beginning 1 year after the date of issuance of the finding under clause (i)(I), the Secretary shall impose—

(I) a maximum wattage limitation of 40 watts on shatter resistant lamps; and

(II) a requirement that those lamps be sold at retail only in a package containing 1 lamp.

(I) RULEMAKINGS BEFORE JANUARY 1, 2025.—

(i) IN GENERAL.—Except as provided in clause (ii), if the Secretary issues a final rule prior to January 1, 2025, establishing an energy conservation standard for any of the 5 types of lamps for which data collection is required under any of subparagraphs (D) through (G), the requirement to collect and model data for that type of lamp shall terminate unless, as part of the rulemaking, the Secretary determines that continued tracking is necessary.

(ii) **BACKSTOP REQUIREMENT.**—If the Secretary imposes a backstop requirement as a result of a failure to complete an accelerated rulemaking in accordance with clause (i)(II) of any of subparagraphs (D) through (G),<sup>4</sup> the requirement to collect and model data for the applicable type of lamp shall continue for an additional 2 years after the effective date of the backstop requirement.

**(m) Amendment of standards**

**(1) In general**

Not later than 6 years after issuance of any final rule establishing or amending a standard, as required for a product under this part, the Secretary shall publish—

(A) a notice of the determination of the Secretary that standards for the product do not need to be amended, based on the criteria established under subsection (n)(2); or

(B) a notice of proposed rulemaking including new proposed standards based on the criteria established under subsection (o) and the procedures established under subsection (p).

**(2) Notice**

If the Secretary publishes a notice under paragraph (1), the Secretary shall—

(A) publish a notice stating that the analysis of the Department is publicly available; and

(B) provide an opportunity for written comment.

**(3) Amendment of standard; new determination**

**(A) Amendment of standard**

Not later than 2 years after a notice is issued under paragraph (1)(B), the Secretary shall publish a final rule amending the standard for the product.

**(B) New determination**

Not later than 3 years after a determination under paragraph (1)(A), the Secretary shall make a new determination and publication under subparagraph (A) or (B) of paragraph (1).

**(4) Application to products**

**(A) In general**

Except as provided in subparagraph (B), an amendment prescribed under this subsection shall apply to—

(i) with respect to refrigerators, refrigerator-freezers, freezers, room air conditioners, dishwashers, clothes washers, clothes dryers, fluorescent lamp ballasts, and kitchen ranges and ovens, such a product that is manufactured after the date that is 3 years after publication of the final rule establishing an applicable standard; and

(ii) with respect to central air conditioners, heat pumps, water heaters, pool heaters, direct heating equipment, and furnaces, such a product that is manufactured after the date that is 5 years after publication of the final rule establishing an applicable standard.

**(B) Other new standards**

A manufacturer shall not be required to apply new standards to a product with respect to which other new standards have been required during the prior 6-year period.

**(5) Reports**

The Secretary shall promptly submit to the Committee on Energy and Commerce of the House of Representatives and the Committee on Energy and Natural Resources of the Senate—

(A) a progress report every 180 days on compliance with this section, including a specific plan to remedy any failures to comply with deadlines for action established under this section; and

(B) all required reports to the Court or to any party to the Consent Decree in *State of New York v Bodman*, Consolidated Civil Actions No. 05 Civ. 7807 and No. 05 Civ. 7808.

**(n) Petition for amended standard**

(1) With respect to each covered product described in paragraphs (1) through (11), and in paragraphs (13) and (14) of section 6292(a) of this title, any person may petition the Secretary to conduct a rulemaking to determine for a covered product if the standards contained either in the last final rule required under subsections (b) through (i) of this section or in a final rule published under this section should be amended.

(2) The Secretary shall grant a petition if he finds that it contains evidence which, assuming no other evidence were considered, provides an adequate basis for amending the standards under the following criteria—

(A) amended standards will result in significant conservation of energy;

(B) amended standards are technologically feasible; and

(C) amended standards are cost effective as described in subsection (o)(2)(B)(i)(II).

The grant of a petition by the Secretary under this subsection creates no presumption with respect to the Secretary's determination of any of the criteria in a rulemaking under this section.

(3) **NOTICE OF DECISION.**—Not later than 180 days after the date of receiving a petition, the Secretary shall publish in the Federal Register a notice of, and explanation for, the decision of the Secretary to grant or deny the petition.

(4) **NEW OR AMENDED STANDARDS.**—Not later than 3 years after the date of granting a petition for new or amended standards, the Secretary shall publish in the Federal Register—

(A) a final rule that contains the new or amended standards; or

(B) a determination that no new or amended standards are necessary.

(5) An amendment prescribed under this subsection shall apply to products manufactured after a date which is 5 years after—

(A) the effective date of the previous amendment pursuant to this part; or

(B) if the previous final rule published under this part did not amend the standard, the earliest date by which a previous amendment could have been in effect, except that in no case may an amended standard apply to prod-

<sup>4</sup> So in original. Subpar. (G) does not contain a cl. (i)(II).

ucts manufactured within 3 years (for refrigerators, refrigerator-freezers, and freezers, room air conditioners, dishwashers, clothes washers, clothes dryers, fluorescent lamp ballasts, general service fluorescent lamps, incandescent reflector lamps, and kitchen ranges and ovens) or 5 years (for central air conditioners and heat pumps, water heaters, pool heaters, direct heating equipment and furnaces) after publication of the final rule establishing a standard.

**(o) Criteria for prescribing new or amended standards**

(1) The Secretary may not prescribe any amended standard which increases the maximum allowable energy use, or, in the case of showerheads, faucets, water closets, or urinals, water use, or decreases the minimum required energy efficiency, of a covered product.

(2)(A) Any new or amended energy conservation standard prescribed by the Secretary under this section for any type (or class) of covered product shall be designed to achieve the maximum improvement in energy efficiency, or, in the case of showerheads, faucets, water closets, or urinals, water efficiency, which the Secretary determines is technologically feasible and economically justified.

(B)(i) In determining whether a standard is economically justified, the Secretary shall, after receiving views and comments furnished with respect to the proposed standard, determine whether the benefits of the standard exceed its burdens by, to the greatest extent practicable, considering—

(I) the economic impact of the standard on the manufacturers and on the consumers of the products subject to such standard;

(II) the savings in operating costs throughout the estimated average life of the covered product in the type (or class) compared to any increase in the price of, or in the initial charges for, or maintenance expenses of, the covered products which are likely to result from the imposition of the standard;

(III) the total projected amount of energy, or as applicable, water, savings likely to result directly from the imposition of the standard;

(IV) any lessening of the utility or the performance of the covered products likely to result from the imposition of the standard;

(V) the impact of any lessening of competition, as determined in writing by the Attorney General, that is likely to result from the imposition of the standard;

(VI) the need for national energy and water conservation; and

(VII) other factors the Secretary considers relevant.

(ii) For purposes of clause (i)(V), the Attorney General shall make a determination of the impact, if any, of any lessening of competition likely to result from such standard and shall transmit such determination, not later than 60 days after the publication of a proposed rule prescribing or amending an energy conservation standard, in writing to the Secretary, together with an analysis of the nature and extent of such impact. Any such determination and analysis shall be published by the Secretary in the Federal Register.

(iii) If the Secretary finds that the additional cost to the consumer of purchasing a product complying with an energy conservation standard level will be less than three times the value of the energy, and as applicable, water, savings during the first year that the consumer will receive as a result of the standard, as calculated under the applicable test procedure, there shall be a rebuttable presumption that such standard level is economically justified. A determination by the Secretary that such criterion is not met shall not be taken into consideration in the Secretary's determination of whether a standard is economically justified.

(3) The Secretary may not prescribe an amended or new standard under this section for a type (or class) of covered product if—

(A) for products other than dishwashers, clothes washers, clothes dryers, and kitchen ranges and ovens, a test procedure has not been prescribed pursuant to section 6293 of this title with respect to that type (or class) of product; or

(B) the Secretary determines, by rule, that the establishment of such standard will not result in significant conservation of energy or, in the case of showerheads, faucets, water closets, or urinals, water, or that the establishment of such standard is not technologically feasible or economically justified.

For purposes of section 6297 of this title, a determination under subparagraph (B) with respect to any type (or class) of covered products shall have the same effect as would a standard prescribed for such type (or class).

(4) The Secretary may not prescribe an amended or new standard under this section if the Secretary finds (and publishes such finding) that interested persons have established by a preponderance of the evidence that the standard is likely to result in the unavailability in the United States in any covered product type (or class) of performance characteristics (including reliability), features, sizes, capacities, and volumes that are substantially the same as those generally available in the United States at the time of the Secretary's finding. The failure of some types (or classes) to meet this criterion shall not affect the Secretary's determination of whether to prescribe a standard for other types (or classes).

(5) The Secretary may set more than 1 energy conservation standard for products that serve more than 1 major function by setting 1 energy conservation standard for each major function.

(6) REGIONAL STANDARDS FOR FURNACES, CENTRAL AIR CONDITIONERS, AND HEAT PUMPS.—

(A) IN GENERAL.—In any rulemaking to establish a new or amended standard, the Secretary may consider the establishment of separate standards by geographic region for furnaces (except boilers), central air conditioners, and heat pumps.

(B) NATIONAL AND REGIONAL STANDARDS.—

(i) NATIONAL STANDARD.—If the Secretary establishes a regional standard for a product, the Secretary shall establish a base national standard for the product.

(ii) REGIONAL STANDARDS.—If the Secretary establishes a regional standard for a product, the Secretary may establish more re-

strictive standards for the product by geographic region as follows:

(I) For furnaces, the Secretary may establish 1 additional standard that is applicable in a geographic region defined by the Secretary.

(II) For any cooling product, the Secretary may establish 1 or 2 additional standards that are applicable in 1 or 2 geographic regions as may be defined by the Secretary.

(C) BOUNDARIES OF GEOGRAPHIC REGIONS.—

(i) IN GENERAL.—Subject to clause (ii), the boundaries of additional geographic regions established by the Secretary under this paragraph shall include only contiguous States.

(ii) ALASKA AND HAWAII.—The States of Alaska and Hawaii may be included under this paragraph in a geographic region that the States are not contiguous to.

(iii) INDIVIDUAL STATES.—Individual States shall be placed only into a single region under this paragraph.

(D) PREREQUISITES.—In establishing additional regional standards under this paragraph, the Secretary shall—

(i) establish additional regional standards only if the Secretary determines that—

(I) the establishment of additional regional standards will produce significant energy savings in comparison to establishing only a single national standard; and

(II) the additional regional standards are economically justified under this paragraph; and

(ii) consider the impact of the additional regional standards on consumers, manufacturers, and other market participants, including product distributors, dealers, contractors, and installers.

(E) APPLICATION; EFFECTIVE DATE.—

(i) BASE NATIONAL STANDARD.—Any base national standard established for a product under this paragraph shall—

(I) be the minimum standard for the product; and

(II) apply to all products manufactured or imported into the United States on and after the effective date for the standard.

(ii) REGIONAL STANDARDS.—Any additional and more restrictive regional standard established for a product under this paragraph shall apply to any such product installed on or after the effective date of the standard in States in which the Secretary has designated the standard to apply.

(F) CONTINUATION OF REGIONAL STANDARDS.—

(i) IN GENERAL.—In any subsequent rulemaking for any product for which a regional standard has been previously established, the Secretary shall determine whether to continue the establishment of separate regional standards for the product.

(ii) REGIONAL STANDARD NO LONGER APPROPRIATE.—Except as provided in clause (iii), if the Secretary determines that regional standards are no longer appropriate for a

product, beginning on the effective date of the amended standard for the product—

(I) there shall be 1 base national standard for the product with Federal enforcement; and

(II) State authority for enforcing a regional standard for the product shall terminate.

(iii) REGIONAL STANDARD APPROPRIATE BUT STANDARD OR REGION CHANGED.—

(I) STATE NO LONGER CONTAINED IN REGION.—Subject to subclause (III), if a State is no longer contained in a region in which a regional standard that is more stringent than the base national standard applies, the authority of the State to enforce the regional standard shall terminate.

(II) STANDARD OR REGION REVISED SO THAT EXISTING REGIONAL STANDARD EQUALS BASE NATIONAL STANDARD.—If the Secretary revises a base national standard for a product or the geographic definition of a region so that an existing regional standard for a State is equal to the revised base national standard—

(aa) the authority of the State to enforce the regional standard shall terminate on the effective date of the revised base national standard; and

(bb) the State shall be subject to the revised base national standard.

(III) STANDARD OR REGION REVISED SO THAT EXISTING REGIONAL STANDARD EQUALS BASE NATIONAL STANDARD.—If the Secretary revises a base national standard for a product or the geographic definition of a region so that the standard for a State is lower than the previously approved regional standard, the State may continue to enforce the previously approved standard level.

(iv) WAIVER OF FEDERAL PREEMPTION.—Nothing in this paragraph diminishes the authority of a State to enforce a State regulation for which a waiver of Federal preemption has been granted under section 6297(d) of this title.

(G) ENFORCEMENT.—

(i) BASE NATIONAL STANDARD.—

(I) IN GENERAL.—The Secretary shall enforce any base national standard.

(II) TRADE ASSOCIATION CERTIFICATION PROGRAMS.—In enforcing the base national standard, the Secretary shall use, to the maximum extent practicable, national standard nationally recognized certification programs of trade associations.

(ii) REGIONAL STANDARDS.—

(I) ENFORCEMENT PLAN.—Not later than 90 days after the date of the issuance of a final rule that establishes a regional standard, the Secretary shall initiate a rulemaking to develop and implement an effective enforcement plan for regional standards for the products that are covered by the final rule.

(II) RESPONSIBLE ENTITIES.—Any rules regarding enforcement of a regional standard shall clearly specify which entities are

legally responsible for compliance with the standards and for making any required information or labeling disclosures.

(III) FINAL RULE.—Not later than 15 months after the date of the issuance of a final rule that establishes a regional standard for a product, the Secretary shall promulgate a final rule covering enforcement of regional standards for the product.

(IV) INCORPORATION BY STATES AND LOCALITIES.—A State or locality may incorporate any Federal regional standard into State or local building codes or State appliance standards.

(V) STATE ENFORCEMENT.—A State agency may seek enforcement of a Federal regional standard in a Federal court of competent jurisdiction.

(H) INFORMATION DISCLOSURE.—

(i) IN GENERAL.—Not later than 90 days after the date of the publication of a final rule that establishes a regional standard for a product, the Federal Trade Commission shall undertake a rulemaking to determine the appropriate 1 or more methods for disclosing information so that consumers, distributors, contractors, and installers can easily determine whether a specific piece of equipment that is installed in a specific building is in conformance with the regional standard that applies to the building.

(ii) METHODS.—A method of disclosing information under clause (i) may include—

(I) modifications to the Energy Guide label; or

(II) other methods that make it easy for consumers and installers to use and understand at the point of installation.

(iii) COMPLETION OF RULEMAKING.—The rulemaking shall be completed not later than 15 months after the date of the publication of a final rule that establishes a regional standard for a product.

**(p) Procedure for prescribing new or amended standards**

Any new or amended energy conservation standard shall be prescribed in accordance with the following procedure:

(1) A proposed rule which prescribes an amended or new energy conservation standard or prescribes no amendment or no new standard for a type (or class) of covered products shall be published in the Federal Register. In prescribing any such proposed rule with respect to a standard, the Secretary shall determine the maximum improvement in energy efficiency or maximum reduction in energy use that is technologically feasible for each type (or class) of covered products. If such standard is not designed to achieve such efficiency or use, the Secretary shall state in the proposed rule the reasons therefor.

(2) After the publication of such proposed rulemaking, the Secretary shall, in accordance with section 6306 of this title, afford interested persons an opportunity, during a period of not less than 60 days, to present oral and written comments (including an opportunity to question those who make such pres-

entations, as provided in such section) on matters relating to such proposed rule, including—

(A) whether the standard to be prescribed is economically justified (taking into account those factors which the Secretary must consider under subsection (o)(2)) or will result in the effects described in subsection (o)(4);

(B) whether the standard will achieve the maximum improvement in energy efficiency which is technologically feasible;

(C) if the standard will not achieve such improvement, whether the reasons for not achieving such improvement are adequate; and

(D) whether such rule should prescribe a level of energy use or efficiency which is higher or lower than that which would otherwise apply in the case of any group of products within the type (or class) that will be subject to such standard.

(3) A final rule prescribing an amended or new energy conservation standard or prescribing no amended or new standard for a type (or class) of covered products shall be published as soon as is practicable, but not less than 90 days, after publication of the proposed rule in the Federal Register.

(4) DIRECT FINAL RULES.—

(A) IN GENERAL.—On receipt of a statement that is submitted jointly by interested persons that are fairly representative of relevant points of view (including representatives of manufacturers of covered products, States, and efficiency advocates), as determined by the Secretary, and contains recommendations with respect to an energy or water conservation standard—

(i) if the Secretary determines that the recommended standard contained in the statement is in accordance with subsection (o) or section 6313(a)(6)(B) of this title, as applicable, the Secretary may issue a final rule that establishes an energy or water conservation standard and is published simultaneously with a notice of proposed rulemaking that proposes a new or amended energy or water conservation standard that is identical to the standard established in the final rule to establish the recommended standard (referred to in this paragraph as a “direct final rule”); or

(ii) if the Secretary determines that a direct final rule cannot be issued based on the statement, the Secretary shall publish a notice of the determination, together with an explanation of the reasons for the determination.

(B) PUBLIC COMMENT.—The Secretary shall solicit public comment for a period of at least 110 days with respect to each direct final rule issued by the Secretary under subparagraph (A)(i).

(C) WITHDRAWAL OF DIRECT FINAL RULES.—

(i) IN GENERAL.—Not later than 120 days after the date on which a direct final rule issued under subparagraph (A)(i) is published in the Federal Register, the Secretary shall withdraw the direct final rule if—



(I) the Secretary receives 1 or more adverse public comments relating to the direct final rule under subparagraph (B)(i)<sup>5</sup> or any alternative joint recommendation; and

(II) based on the rulemaking record relating to the direct final rule, the Secretary determines that such adverse public comments or alternative joint recommendation may provide a reasonable basis for withdrawing the direct final rule under subsection (o), section 6313(a)(6)(B) of this title, or any other applicable law.

(ii) ACTION ON WITHDRAWAL.—On withdrawal of a direct final rule under clause (i), the Secretary shall—

(I) proceed with the notice of proposed rulemaking published simultaneously with the direct final rule as described in subparagraph (A)(i); and

(II) publish in the Federal Register the reasons why the direct final rule was withdrawn.

(iii) TREATMENT OF WITHDRAWN DIRECT FINAL RULES.—A direct final rule that is withdrawn under clause (i) shall not be considered to be a final rule for purposes of subsection (o).

(D) EFFECT OF PARAGRAPH.—Nothing in this paragraph authorizes the Secretary to issue a direct final rule based solely on receipt of more than 1 statement containing recommended standards relating to the direct final rule.

**(q) Special rule for certain types or classes of products**

(1) A rule prescribing an energy conservation standard for a type (or class) of covered products shall specify a level of energy use or efficiency higher or lower than that which applies (or would apply) for such type (or class) for any group of covered products which have the same function or intended use, if the Secretary determines that covered products within such group—

(A) consume a different kind of energy from that consumed by other covered products within such type (or class); or

(B) have a capacity or other performance-related feature which other products within such type (or class) do not have and such feature justifies a higher or lower standard from that which applies (or will apply) to other products within such type (or class).

In making a determination under this paragraph concerning whether a performance-related feature justifies the establishment of a higher or lower standard, the Secretary shall consider such factors as the utility to the consumer of such a feature, and such other factors as the Secretary deems appropriate.

(2) Any rule prescribing a higher or lower level of energy use or efficiency under paragraph (1) shall include an explanation of the basis on which such higher or lower level was established.

**(r) Inclusion in standards of test procedures and other requirements**

Any new or amended energy conservation standard prescribed under this section shall include, where applicable, test procedures prescribed in accordance with section 6293 of this title and may include any requirement which the Secretary determines is necessary to assure that each covered product to which such standard applies meets the required minimum level of energy efficiency or maximum quantity of energy use specified in such standard.

**(s) Determination of compliance with standards**

Compliance with, and performance under, the energy conservation standards (except for design standards authorized by this part) established in, or prescribed under, this section shall be determined using the test procedures and corresponding compliance criteria prescribed under section 6293 of this title.

**(t) Small manufacturer exemption**

(1) Subject to paragraph (2), the Secretary may, on application of any manufacturer, exempt such manufacturer from all or part of the requirements of any energy conservation standard established in or prescribed under this section for any period not longer than the 24-month period beginning on the date such rule becomes effective, if the Secretary finds that the annual gross revenues of such manufacturer from all its operations (including the manufacture and sale of covered products) does not exceed \$8,000,000 for the 12-month period preceding the date of the application. In making such finding with respect to any manufacturer, the Secretary shall take into account the annual gross revenues of any other person who controls, is controlled by, or is under common control with, such manufacturer.

(2) The Secretary may not exercise the authority granted under paragraph (1) with respect to any type (or class) of covered product subject to an energy conservation standard under this section unless the Secretary makes a finding, after obtaining the written views of the Attorney General, that a failure to allow an exemption under paragraph (1) would likely result in a lessening of competition.

**(u) Battery charger and external power supply electric energy consumption**

(1)(A) Not later than 18 months after August 8, 2005, the Secretary shall, after providing notice and an opportunity for comment, prescribe, by rule, definitions and test procedures for the power use of battery chargers and external power supplies.

(B) In establishing the test procedures under subparagraph (A), the Secretary shall—

(i) consider existing definitions and test procedures used for measuring energy consumption in standby mode and other modes; and

(ii) assess the current and projected future market for battery chargers and external power supplies.

(C) The assessment under subparagraph (B)(ii) shall include—

(i) estimates of the significance of potential energy savings from technical improvements

<sup>5</sup> So in original. Probably should be "subparagraph (A)(i)".

to battery chargers and external power supplies; and

(ii) suggested product classes for energy conservation standards.

(D) Not later than 18 months after August 8, 2005, the Secretary shall hold a scoping workshop to discuss and receive comments on plans for developing energy conservation standards for energy use for battery chargers and external power supplies.

(E) EXTERNAL POWER SUPPLIES AND BATTERY CHARGERS.—

(i) ENERGY CONSERVATION STANDARDS.—

(I) EXTERNAL POWER SUPPLIES.—Not later than 2 years after August 8, 2005, the Secretary shall issue a final rule that determines whether energy conservation standards shall be issued for external power supplies or classes of external power supplies.

(II) BATTERY CHARGERS.—Not later than July 1, 2011, the Secretary shall issue a final rule that prescribes energy conservation standards for battery chargers or classes of battery chargers or determine that no energy conservation standard is technically feasible and economically justified.

(ii) For each product class, any energy conservation standards issued under clause (i) shall be set at the lowest level of energy use that—

(I) meets the criteria and procedures of subsections (o), (p), (q), (r), (s), and (t); and

(II) would result in significant overall annual energy savings, considering standby mode and other operating modes.

(2) The Secretary and the Administrator shall collaborate and develop programs (including programs under section 6294a of this title and other voluntary industry agreements or codes of conduct) that are designed to reduce standby mode energy use.

(3) EFFICIENCY STANDARDS FOR CLASS A EXTERNAL POWER SUPPLIES.—

(A) IN GENERAL.—Subject to subparagraphs (B) through (E), a class A external power supply manufactured on or after the later of July 1, 2008, or December 19, 2007, shall meet the following standards:

Active Mode	
Nameplate Output	Required Efficiency (decimal equivalent of a percentage)
Less than 1 watt	0.5 times the Nameplate Output
From 1 watt to not more than 51 watts	The sum of 0.09 times the Natural Logarithm of the Nameplate Output and 0.5
Greater than 51 watts	0.85
No-Load Mode	
Nameplate Output	Maximum Consumption
Not more than 250 watts	0.5 watts

(B) NONCOVERED SUPPLIES.—A class A external power supply shall not be subject to subparagraph (A) if the class A external power supply is—

(i) manufactured during the period beginning on July 1, 2008, and ending on June 30, 2015; and

(ii) made available by the manufacturer as a service part or a spare part for an end-use product—

(I) that constitutes the primary load; and

(II) was manufactured before July 1, 2008.

(C) MARKING.—Any class A external power supply manufactured on or after the later of July 1, 2008 or December 19, 2007, shall be clearly and permanently marked in accordance with the External Power Supply International Efficiency Marking Protocol, as referenced in the “Energy Star Program Requirements for Single Voltage External AC–DC and AC–AC Power Supplies, version 1.1” published by the Environmental Protection Agency.

(D) AMENDMENT OF STANDARDS.—

(i) FINAL RULE BY JULY 1, 2011.—

(I) IN GENERAL.—Not later than July 1, 2011, the Secretary shall publish a final rule to determine whether the standards established under subparagraph (A) should be amended.

(II) ADMINISTRATION.—The final rule shall—

(aa) contain any amended standards; and

(bb) apply to products manufactured on or after July 1, 2013.

(ii) FINAL RULE BY JULY 1, 2021.—

(I) IN GENERAL.—Not later than July 1, 2021 the Secretary shall publish a final rule to determine whether the standards then in effect should be amended.

(II) ADMINISTRATION.—The final rule shall—

(aa) contain any amended standards; and

(bb) apply to products manufactured on or after July 1, 2023.

(E) NONAPPLICATION OF NO-LOAD MODE ENERGY EFFICIENCY STANDARDS TO EXTERNAL POWER SUPPLIES FOR CERTAIN SECURITY OR LIFE SAFETY ALARMS OR SURVEILLANCE SYSTEMS.—

(i) DEFINITION OF SECURITY OR LIFE SAFETY ALARM OR SURVEILLANCE SYSTEM.—In this subparagraph:

(I) IN GENERAL.—The term “security or life safety alarm or surveillance system” means equipment designed and marketed to perform any of the following functions (on a continuous basis):

(aa) Monitor, detect, record, or provide notification of intrusion or access to real property or physical assets or notification of threats to life safety.

(bb) Deter or control access to real property or physical assets, or prevent the unauthorized removal of physical assets.

(cc) Monitor, detect, record, or provide notification of fire, gas, smoke, flooding, or other physical threats to real property, physical assets, or life safety.

(II) EXCLUSION.—The term “security or life safety alarm or surveillance system”

does not include any product with a principal function other than life safety, security, or surveillance that—

- (aa) is designed and marketed with a built-in alarm or theft-deterrent feature; or
- (bb) does not operate necessarily and continuously in active mode.

(ii) **NONAPPLICATION OF NO-LOAD MODE REQUIREMENTS.**—The No-Load Mode energy efficiency standards established by this paragraph shall not apply to an external power supply manufactured before the effective date of the amendment under subparagraph (D)(i) that—

- (I) is an AC-to-AC external power supply;
- (II) has a nameplate output of 20 watts or more;
- (III) is certified to the Secretary as being designed to be connected to a security or life safety alarm or surveillance system component; and
- (IV) on establishment within the External Power Supply International Efficiency Marking Protocol, as referenced in the “Energy Star Program Requirements for Single Voltage External Ac-Dc and Ac-Ac Power Supplies”, published by the Environmental Protection Agency, of a distinguishing mark for products described in this clause, is permanently marked with the distinguishing mark.

(iii) **ADMINISTRATION.**—In carrying out this subparagraph, the Secretary shall—

- (I) require, with appropriate safeguard for the protection of confidential business information, the submission of unit shipment data on an annual basis; and
- (II) restrict the eligibility of external power supplies for the exemption provided under this subparagraph on a finding that a substantial number of the external power supplies are being marketed to or installed in applications other than security or life safety alarm or surveillance systems.

(iv) **TREATMENT IN RULE.**—In the rule under subparagraph (D)(ii) and subsequent amendments the Secretary may treat some or all external power supplies designed to be connected to a security or life safety alarm or surveillance system as a separate product class or may extend the nonapplication under clause (ii).

(4) **END-USE PRODUCTS.**—An energy conservation standard for external power supplies shall not constitute an energy conservation standard for the separate end-use product to which the external power supply is connected.

(5) **EXEMPT SUPPLIES.**—

(A) **FEBRUARY 10, 2014, RULE.**—

(i) **IN GENERAL.**—An external power supply shall not be subject to the final rule entitled “Energy Conservation Program: Energy Conservation Standards for External Power Supplies”, published at 79 Fed. Reg. 7845 (February 10, 2014), if the external power supply—

- (I) is manufactured during the period beginning on February 10, 2016, and ending on February 10, 2020;

(II) is marked in accordance with the External Power Supply International Efficiency Marking Protocol, as in effect on February 10, 2016;

(III) meets, where applicable, the standards under paragraph (3)(A), and has been certified to the Secretary as meeting International Efficiency Level IV or higher of the External Power Supply International Efficiency Marking Protocol, as in effect on February 10, 2016; and

(IV) is made available by the manufacturer as a service part or a spare part for an end-use product that—

- (aa) constitutes the primary load; and
- (bb) was manufactured before February 10, 2016.

(ii) **REPORTING.**—The Secretary may require manufacturers of products exempted pursuant to clause (i) to report annual total units shipped as service and spare parts that fall below International Efficiency Level VI.

(iii) **LIMITATION OF EXEMPTION.**—The Secretary may issue a rule, after providing public notice and opportunity for public comment, to limit the applicability of the exemption established under clause (i) if the Secretary determines that the exemption is resulting in a significant reduction of the energy savings that would otherwise result from the final rule described in such clause.

(B) **AMENDED STANDARDS.**—

(i) **IN GENERAL.**—The Secretary may exempt an external power supply from any amended standard under this subsection if the external power supply—

- (I) is manufactured within four years of the compliance date of the amended standard;
- (II) complies with applicable marking requirements adopted by the Secretary prior to the amendment;
- (III) meets the standards that were in effect prior to the amendment; and
- (IV) is made available by the manufacturer as a service part or a spare part for an end-use product that—
  - (aa) constitutes the primary load; and
  - (bb) was manufactured before the compliance date of the amended standard.

(ii) **REPORTING.**—The Secretary may require manufacturers of a product exempted pursuant to clause (i) to report annual total units shipped as service and spare parts that do not meet the amended standard.

(v) **Refrigerated beverage vending machines**

(1) Not later than 4 years after August 8, 2005, the Secretary shall prescribe, by rule, energy conservation standards for refrigerated bottle or canned beverage vending machines.

(2) In establishing energy conservation standards under this subsection, the Secretary shall use the criteria and procedures prescribed under subsections (o) and (p).

(3) Any energy conservation standard prescribed under this subsection shall apply to products manufactured 3 years after the date of publication of a final rule establishing the energy conservation standard.

**(w) Illuminated exit signs**

An illuminated exit sign manufactured on or after January 1, 2006, shall meet the version 2.0 Energy Star Program performance requirements for illuminated exit signs prescribed by the Environmental Protection Agency.

**(x) Torchieres**

A torchiere manufactured on or after January 1, 2006—

- (1) shall consume not more than 190 watts of power; and
- (2) shall not be capable of operating with lamps that total more than 190 watts.

**(y) Low voltage dry-type distribution transformers**

The efficiency of a low voltage dry-type distribution transformer manufactured on or after January 1, 2007, shall be the Class I Efficiency Levels for distribution transformers specified in table 4-2 of the "Guide for Determining Energy Efficiency for Distribution Transformers" published by the National Electrical Manufacturers Association (NEMA TP-1-2002).

**(z) Traffic signal modules and pedestrian modules**

Any traffic signal module or pedestrian module manufactured on or after January 1, 2006, shall—

- (1) meet the performance requirements used under the Energy Star program of the Environmental Protection Agency for traffic signals, as in effect on August 8, 2005; and
- (2) be installed with compatible, electrically connected signal control interface devices and conflict monitoring systems.

**(aa) Unit heaters**

A unit heater manufactured on or after the date that is 3 years after August 8, 2005, shall—

- (1) be equipped with an intermittent ignition device; and
- (2) have power venting or an automatic flue damper.

**(bb) Medium base compact fluorescent lamps**

(1) A bare lamp and covered lamp (no reflector) medium base compact fluorescent lamp manufactured on or after January 1, 2006, shall meet the following requirements prescribed by the August 9, 2001, version of the Energy Star Program Requirements for Compact Fluorescent Lamps, Energy Star Eligibility Criteria, Energy-Efficiency Specification issued by the Environmental Protection Agency and Department of Energy:

- (A) Minimum initial efficacy.
- (B) Lumen maintenance at 1000 hours.
- (C) Lumen maintenance at 40 percent of rated life.
- (D) Rapid cycle stress test.
- (E) Lamp life.

(2) The Secretary may, by rule, establish requirements for color quality (CRI), power factor, operating frequency, and maximum allowable start time based on the requirements prescribed by the August 9, 2001, version of the Energy Star Program Requirements for Compact Fluorescent Lamps.

- (3) The Secretary may, by rule—

(A) revise the requirements established under paragraph (2); or

(B) establish other requirements, after considering energy savings, cost effectiveness, and consumer satisfaction.

**(cc) Dehumidifiers**

(1) Dehumidifiers manufactured on or after October 1, 2007, shall have an Energy Factor that meets or exceeds the following values:

Product Capacity (pints/day):	Minimum Energy Factor (Liters/kWh)
25.00 or less .....	1.00
25.01 – 35.00 .....	1.20
35.01 – 54.00 .....	1.30
54.01 – 74.99 .....	1.50
75.00 or more .....	2.25.

(2) DEHUMIDIFIERS MANUFACTURED ON OR AFTER OCTOBER 1, 2012.—Dehumidifiers manufactured on or after October 1, 2012, shall have an Energy Factor that meets or exceeds the following values:

Product Capacity (pints/day):	Minimum Energy Factor (liters/kWh)
Up to 35.00 .....	1.35
35.01–45.00 .....	1.50
45.01–54.00 .....	1.60
54.01–75.00 .....	1.70
Greater than 75.00 .....	2.5.

**(dd) Commercial prerinse spray valves**

Commercial prerinse spray valves manufactured on or after January 1, 2006, shall have a flow rate of not more than 1.6 gallons per minute.

**(ee) Mercury vapor lamp ballasts**

Mercury vapor lamp ballasts (other than specialty application mercury vapor lamp ballasts) shall not be manufactured or imported after January 1, 2008.

**(ff) Ceiling fans and ceiling fan light kits**

(1)(A) All ceiling fans manufactured on or after January 1, 2007, shall have the following features:

- (i) Fan speed controls separate from any lighting controls.
- (ii) Adjustable speed controls (either more than 1 speed or variable speed).
- (iii) The capability of reversible fan action, except for—
  - (I) fans sold for industrial applications;
  - (II) fans sold for outdoor applications; and
  - (III) cases in which safety standards would be violated by the use of the reversible mode.

(B) The Secretary may define the exceptions described in clause (iv) in greater detail, but shall not substantively expand the exceptions.

(2)(A) Ceiling fan light kits with medium screw base sockets manufactured on or after January 1, 2007, shall be packaged with screw-based lamps to fill all screw base sockets.

(B) The screw-based lamps required under subparagraph (A) shall—

- (i) meet the Energy Star Program Requirements for Compact Fluorescent Lamps, version 3.0, issued by the Department of Energy; or

(ii) use light sources other than compact fluorescent lamps that have lumens per watt performance at least equivalent to comparably configured compact fluorescent lamps meeting the Energy Star Program Requirements described in clause (i).

(3) Ceiling fan light kits with pin-based sockets for fluorescent lamps manufactured on or after January 1, 2007 shall—

(A) meet the Energy Star Program Requirements for Residential Light Fixtures version 4.0 issued by the Environmental Protection Agency; and

(B) be packaged with lamps to fill all sockets.

(4)(A) By January 1, 2007, the Secretary shall consider and issue requirements for any ceiling fan lighting kits other than those covered in paragraphs (2) and (3), including candelabra screw base sockets.

(B) The requirements issued under subparagraph (A) shall be effective for products manufactured 2 years after the date of the final rule.

(C) If the Secretary fails to issue a final rule by the date specified in subparagraph (A), any type of ceiling fan lighting kit described in subparagraph (A) that is manufactured after January 1, 2009—

(i) shall not be capable of operating with lamps that total more than 190 watts; and

(ii) shall be packaged with lamps to fill all sockets.

(5)(A) After January 1, 2010, the Secretary may consider, and issue, if the requirements of subsections (o) and (p) are met, amended energy efficiency standards for ceiling fan light kits.

(B) Any amended standards issued under subparagraph (A) shall apply to products manufactured not earlier than 2 years after the date of publication of the final rule establishing the amended standard.

(6)(A) Notwithstanding any other provision of this chapter, the Secretary may consider, and issue, if the requirements of subsections (o) and (p) are met, energy efficiency or energy use standards for electricity used by ceiling fans to circulate air in a room.

(B) In issuing the standards under subparagraph (A), the Secretary shall consider—

(i) exempting, or setting different standards for, certain product classes for which the primary standards are not technically feasible or economically justified; and

(ii) establishing separate exempted product classes for highly decorative fans for which air movement performance is a secondary design feature.

(7) Section 6297 of this title shall apply to the products covered in paragraphs (1) through (4) beginning on August 8, 2005, except that any State or local labeling requirement for ceiling fans prescribed or enacted before August 8, 2005, shall not be preempted until the labeling requirements applicable to ceiling fans established under section 6294 of this title take effect.

## **(gg) Standby mode energy use**

### **(1) Definitions**

#### **(A) In general**

Unless the Secretary determines otherwise pursuant to subparagraph (B), in this subsection:

#### **(i) Active mode**

The term “active mode” means the condition in which an energy-using product—

(I) is connected to a main power source;

(II) has been activated; and

(III) provides 1 or more main functions.

#### **(ii) Off mode**

The term “off mode” means the condition in which an energy-using product—

(I) is connected to a main power source; and

(II) is not providing any standby or active mode function.

#### **(iii) Standby mode**

The term “standby mode” means the condition in which an energy-using product—

(I) is connected to a main power source; and

(II) offers 1 or more of the following user-oriented or protective functions:

(aa) To facilitate the activation or deactivation of other functions (including active mode) by remote switch (including remote control), internal sensor, or timer.

(bb) Continuous functions, including information or status displays (including clocks) or sensor-based functions.

#### **(B) Amended definitions**

The Secretary may, by rule, amend the definitions under subparagraph (A), taking into consideration the most current versions of Standards 62301 and 62087 of the International Electrotechnical Commission.

### **(2) Test procedures**

#### **(A) In general**

Test procedures for all covered products shall be amended pursuant to section 6293 of this title to include standby mode and off mode energy consumption, taking into consideration the most current versions of Standards 62301 and 62087 of the International Electrotechnical Commission, with such energy consumption integrated into the overall energy efficiency, energy consumption, or other energy descriptor for each covered product, unless the Secretary determines that—

(i) the current test procedures for a covered product already fully account for and incorporate the standby mode and off mode energy consumption of the covered product; or

(ii) such an integrated test procedure is technically infeasible for a particular covered product, in which case the Secretary shall prescribe a separate standby mode and off mode energy use test procedure for

the covered product, if technically feasible.

**(B) Deadlines**

The test procedure amendments required by subparagraph (A) shall be prescribed in a final rule no later than the following dates:

- (i) December 31, 2008, for battery chargers and external power supplies.
- (ii) March 31, 2009, for clothes dryers, room air conditioners, and fluorescent lamp ballasts.
- (iii) June 30, 2009, for residential clothes washers.
- (iv) September 30, 2009, for residential furnaces and boilers.
- (v) March 31, 2010, for residential water heaters, direct heating equipment, and pool heaters.
- (vi) March 31, 2011, for residential dishwashers, ranges and ovens, microwave ovens, and dehumidifiers.

**(C) Prior product standards**

The test procedure amendments adopted pursuant to subparagraph (B) shall not be used to determine compliance with product standards established prior to the adoption of the amended test procedures.

**(3) Incorporation into standard**

**(A) In general**

Subject to subparagraph (B), based on the test procedures required under paragraph (2), any final rule establishing or revising a standard for a covered product, adopted after July 1, 2010, shall incorporate standby mode and off mode energy use into a single amended or new standard, pursuant to subsection (o), if feasible.

**(B) Separate standards**

If not feasible, the Secretary shall prescribe within the final rule a separate standard for standby mode and off mode energy consumption, if justified under subsection (o).

**(hh) Metal halide lamp fixtures**

**(1) Standards**

**(A) In general**

Subject to subparagraphs (B) and (C), metal halide lamp fixtures designed to be operated with lamps rated greater than or equal to 150 watts but less than or equal to 500 watts shall contain—

- (i) a pulse-start metal halide ballast with a minimum ballast efficiency of 88 percent;
- (ii) a magnetic probe-start ballast with a minimum ballast efficiency of 94 percent; or
- (iii) a nonpulse-start electronic ballast with—
  - (I) a minimum ballast efficiency of 92 percent for wattages greater than 250 watts; and
  - (II) a minimum ballast efficiency of 90 percent for wattages less than or equal to 250 watts.

**(B) Exclusions**

The standards established under subparagraph (A) shall not apply to—

- (i) fixtures with regulated lag ballasts;
- (ii) fixtures that use electronic ballasts that operate at 480 volts; or
- (iii) fixtures that—
  - (I) are rated only for 150 watt lamps;
  - (II) are rated for use in wet locations, as specified by the National Electrical Code 2002, section 410.4(A); and
  - (III) contain a ballast that is rated to operate at ambient air temperatures above 50°C, as specified by UL 1029–2001.

**(C) Application**

The standards established under subparagraph (A) shall apply to metal halide lamp fixtures manufactured on or after the later of—

- (i) January 1, 2009; or
- (ii) the date that is 270 days after December 19, 2007.

**(2) Final rule by January 1, 2012**

**(A) In general**

Not later than January 1, 2012, the Secretary shall publish a final rule to determine whether the standards established under paragraph (1) should be amended.

**(B) Administration**

The final rule shall—

- (i) contain any amended standard; and
- (ii) apply to products manufactured on or after January 1, 2015.

**(3) Final rule by January 1, 2019**

**(A) In general**

Not later than January 1, 2019, the Secretary shall publish a final rule to determine whether the standards then in effect should be amended.

**(B) Administration**

The final rule shall—

- (i) contain any amended standards; and
- (ii) apply to products manufactured after January 1, 2022.

**(4) Design and performance requirements**

Notwithstanding any other provision of law, any standard established pursuant to this subsection may contain both design and performance requirements.

**(ii) Application date**

Section 6297 of this title applies—

- (1) to products for which energy conservation standards are to be established under subsection (l), (u), or (v) beginning on the date on which a final rule is issued by the Secretary, except that any State or local standard prescribed or enacted for the product before the date on which the final rule is issued shall not be preempted until the energy conservation standard established under subsection (l), (u), or (v) for the product takes effect; and
- (2) to products for which energy conservation standards are established under subsections (w) through (hh) on August 8, 2005, except that any State or local standard prescribed or enacted before August 8, 2005, shall not be preempted until the energy conservation standards established under subsections (w) through (hh) take effect.

(Pub. L. 94-163, title III, §325, Dec. 22, 1975, 89 Stat. 923; Pub. L. 94-385, title I, §161, Aug. 14, 1976, 90 Stat. 1140; Pub. L. 95-619, title IV, §422, Nov. 9, 1978, 92 Stat. 3259; Pub. L. 100-12, §5, Mar. 17, 1987, 101 Stat. 107; Pub. L. 100-357, §2(e), June 28, 1988, 102 Stat. 673; Pub. L. 102-486, title I, §123(f), Oct. 24, 1992, 106 Stat. 2824; Pub. L. 105-388, §5(a)(5), Nov. 13, 1998, 112 Stat. 3478; Pub. L. 109-58, title I, §135(c), Aug. 8, 2005, 119 Stat. 628; Pub. L. 110-140, title III, §§301(c), 303-305(a), 306(a), 307, 308(a), 309-311(a), 316(c)(2), (d), 321(a)(3), 322(b), 324(e), Dec. 19, 2007, 121 Stat. 1550, 1552, 1553, 1556, 1559-1561, 1563, 1573, 1577, 1588, 1593; Pub. L. 111-360, §1, Jan. 4, 2011, 124 Stat. 4051; Pub. L. 112-210, §§3, 5(a), (c), 10(a)(1), (8), (11), (b)(1), Dec. 18, 2012, 126 Stat. 1514, 1517, 1519, 1522, 1524, 1525; Pub. L. 113-263, §2, Dec. 18, 2014, 128 Stat. 2937; Pub. L. 114-11, title II, §201(1), Apr. 30, 2015, 129 Stat. 186; Pub. L. 115-78, §2, Nov. 2, 2017, 131 Stat. 1256; Pub. L. 115-115, §2(c)(3), Jan. 12, 2018, 131 Stat. 2281.)

## REFERENCES IN TEXT

This chapter, referred to in subsecs. (f)(4)(D), (j)(3)(A)(iii), (k)(3)(A)(iii), and (ff)(6)(A), was in the original “this Act”, meaning Pub. L. 94-163, Dec. 22, 1975, 89 Stat. 871, known as the Energy Policy and Conservation Act. For complete classification of this Act to the Code, see Short Title note set out under section 6201 of this title and Tables.

Subpar. (C) of section 6294(a)(2) of this title, referred to in subsec. (i)(5), was redesignated (D) and a new subpar. (C) was added by Pub. L. 110-140, title III, §324(d), Dec. 19, 2007, 121 Stat. 1593.

Subsection (i), referred to in subsec. (l)(4)(F)(ii)(I), was amended by Pub. L. 110-140, title III, §322(b), Dec. 19, 2007, 121 Stat. 1588, by striking out par. (1) and adding a new par. (1), and as so amended, subsec. (i)(1)(A) does not relate to maximum wattage requirements. However, provisions similar to those contained in former subsec. (i)(1)(A) are now contained in subsec. (i)(1)(B). See 2007 Amendment notes below.

## AMENDMENTS

2018—Subsec. (l)(1), (2). Pub. L. 115-115 substituted “paragraph (20)” for “paragraph (19)”.

2017—Subsec. (u)(3)(D)(ii). Pub. L. 115-78, §2(a), substituted “2021” for “2015” in heading and subcl. (I) and “2023” for “2017” in subcl. (II)(bb).

Subsec. (u)(3)(E)(ii). Pub. L. 115-78, §2(b)(1), substituted “the effective date of the amendment under subparagraph (D)(ii)” for “July 1, 2017,” in introductory provisions.

Subsec. (u)(3)(E)(iv). Pub. L. 115-78, §2(b)(2), added cl. (iv).

2015—Subsec. (e)(6). Pub. L. 114-11 added par. (6).

2014—Subsec. (u)(5). Pub. L. 113-263 added par. (5).

2012—Subsec. (d)(4). Pub. L. 112-210, §5(a), added par. (4).

Subsec. (e)(5). Pub. L. 112-210, §3, added par. (5).

Subsec. (g)(8)(C)(ii). Pub. L. 112-210, §10(b)(1), substituted “negative 20°F” for “20°F”.

Subsec. (i)(1). Pub. L. 112-210, §10(a)(11), made technical amendment to directory language of Pub. L. 110-140, §322(b). See 2007 Amendment note below.

Subsec. (l)(4)(A). Pub. L. 112-210, §10(a)(8), struck out “only” before “in accordance with this paragraph”.

Subsec. (n)(3) to (5). Pub. L. 112-210, §5(c), added pars. (3) and (4) and redesignated former par. (3) as (5).

Subsec. (u)(4). Pub. L. 112-210, §10(a)(1), redesignated par. (7) as (4) and substituted “supply is connected” for “supplies is connected”.

Subsec. (u)(7). Pub. L. 112-210, §10(a)(1)(A), redesignated par. (7) as (4).

2011—Subsec. (u)(3)(A). Pub. L. 111-360, §1(1), substituted “(E)” for “(D)”.

Subsec. (u)(3)(E). Pub. L. 111-360, §1(2), added subpar. (E).

2007—Subsec. (b)(4). Pub. L. 110-140, §311(a)(3), added par. (4).

Subsec. (f). Pub. L. 110-140, §303(1), inserted “and boilers” after “furnaces” in heading.

Subsec. (f)(3), (4). Pub. L. 110-140, §303(2), (3), added par. (3) and redesignated former par. (3) as (4).

Subsec. (f)(4)(D). Pub. L. 110-140, §304, substituted “not later than December 31, 2013, the Secretary shall” for “the Secretary may”.

Subsec. (g)(9), (10). Pub. L. 110-140, §311(a)(2), added pars. (9) and (10).

Subsec. (i). Pub. L. 110-140, §321(a)(3)(A)(i), which directed amendment of subsec. (i) by inserting “, general service incandescent lamps, intermediate base incandescent lamps, candelabra base incandescent lamps,” after “fluorescent lamps” in “section heading”, was executed by making the insertion in subsec. (i) heading to reflect the probable intent of Congress.

Subsec. (i)(1). Pub. L. 110-140, §322(b), as amended by Pub. L. 112-210, §10(a)(11), added par. (1) and struck out former par. (1) which related to, in subpar. (A), lamp efficacy, new maximum wattage, and CRI standards for general service fluorescent lamps, general service incandescent lamps, intermediate base incandescent lamps, candelabra base incandescent lamps, and incandescent reflector lamps, in subpar. (B), color rendering index requirements of certain general service or general illumination application lamps, in subpar. (C), maximum wattage of candelabra incandescent lamps and intermediate base incandescent lamps, in subpar. (D), petition for exemption from requirements, in subpar. (E), petition to establish standards, and, in subpar. (F), definition of effective date.

Pub. L. 110-140, §321(a)(3)(A)(ii), in subpar. (A), in introductory provisions, inserted “, general service incandescent lamps, intermediate base incandescent lamps, candelabra base incandescent lamps,” after “fluorescent lamps” and “, new maximum wattage,” after “lamp efficacy”, inserted tables relating to general service incandescent lamps and modified spectrum general service incandescent lamps, added subpars. (B) to (F), and struck out former subpar. (B) which read as follows: “For the purposes of the tables set forth in subparagraph (A), the term ‘effective date’ means the last day of the month set forth in the table which follows October 24, 1992.”

Subsec. (i)(5). Pub. L. 110-140, §321(a)(3)(A)(iii), struck out “and general service incandescent lamps” after “general service fluorescent”.

Subsec. (i)(6) to (8). Pub. L. 110-140, §321(a)(3)(A)(iv), (v), added par. (6) and redesignated former pars. (6) and (7) as (7) and (8), respectively.

Subsec. (l)(4). Pub. L. 110-140, §321(a)(3)(B), added par. (4).

Subsec. (m). Pub. L. 110-140, §305(a), added subsec. (m) and struck out former subsec. (m) which related to further rulemaking.

Subsec. (o)(6). Pub. L. 110-140, §306(a), added par. (6).

Subsec. (p)(1) to (3). Pub. L. 110-140, §307, redesignated pars. (2) to (4) as (1) to (3), respectively, and struck out former par. (1) which read as follows: “The Secretary—

“(A) shall publish an advance notice of proposed rulemaking which specifies the type (or class) of covered products to which the rule may apply;

“(B) shall invite interested persons to submit, within 60 days after the date of publication of such advance notice, written presentations of data, views, and arguments in response to such notice; and

“(C) may identify proposed or amended standards that may be prescribed.”

Subsec. (p)(4). Pub. L. 110-140, §308(a), added par. (4). Pub. L. 110-140, §307(2), redesignated par. (4) as (3).

Subsec. (u)(1)(E). Pub. L. 110-140, §309(1), inserted heading.

Subsec. (u)(1)(E)(i). Pub. L. 110-140, §309, inserted cl. heading, designated existing provisions as subcl. (I), inserted subcl. heading, substituted “2 years” for “3 years”, struck out “battery chargers and” before “external power supplies” in two places, and added subcl. (II).

Subsec. (u)(2) to (5). Pub. L. 110-140, §310(1), redesignated pars. (5) and (6) as (2) and (3), respectively, and struck out former pars. (2) to (4) which related to revision of test procedures and energy conservation standards with respect to covered products that were major sources of standby mode energy consumption, prohibition against proposal of a standard unless applicable test procedures had been issued, and applicability of standard to products manufactured or imported beginning 3 years after the date of issuance, respectively.

Subsec. (u)(6). Pub. L. 110-140, §310(1)(B), redesignated par. (6) as (3).

Pub. L. 110-140, §301(c), added par. (6).

Subsec. (u)(7). Pub. L. 110-140, §301(c), added par. (7).

Subsec. (v). Pub. L. 110-140, §316(d)(1)(A), struck out “Ceiling fans and” before “refrigerated beverage” in heading.

Subsec. (v)(1) to (4). Pub. L. 110-140, §316(d)(1)(B), (C), redesignated pars. (2) to (4) as (1) to (3), respectively, and struck out former par. (1) which read as follows: “Not later than 1 year after August 8, 2005, the Secretary shall prescribe, by rule, test procedures and energy conservation standards for ceiling fans and ceiling fan light kits. If the Secretary sets such standards, the Secretary shall consider exempting or setting different standards for certain product classes for which the primary standards are not technically feasible or economically justified, and establishing separate or exempted product classes for highly decorative fans for which air movement performance is a secondary design feature.”

Subsec. (cc)(2). Pub. L. 110-140, §311(a)(1), added par. (2) and struck out former par. (2) which directed the Secretary to publish a final rule not later than Oct. 1, 2009, which would determine whether standards established under par. (1) were to be amended, and directed that such rule was to contain any amendment by the Secretary and be applicable to products manufactured on or after Oct. 1, 2012, and further directed that, if the Secretary did not publish such an amendment, dehumidifiers manufactured on or after Oct. 1, 2012, would have an Energy Factor that would meet or exceed values provided in a table of product capacities and minimum Energy Factors.

Subsec. (ee). Pub. L. 110-140, §316(c)(2), inserted “(other than specialty application mercury vapor lamp ballasts)” before “shall”.

Subsec. (ff)(1)(A)(iii), (iv). Pub. L. 110-140, §316(d)(2)(A), redesignated cl. (iv) as (iii), inserted “fans sold for” before “outdoor” in subcl. (II), and struck out former cl. (iii) which read as follows: “Adjustable speed controls (either more than 1 speed or variable speed).”

Subsec. (ff)(4)(C). Pub. L. 110-140, §316(d)(2)(B)(i), substituted “date specified in subparagraph (A)” for “date specified in subparagraph (B)” in introductory provisions.

Subsec. (ff)(4)(C)(ii). Pub. L. 110-140, §316(d)(2)(B)(ii), added cl. (ii) and struck out former cl. (ii) which read as follows: “shall include the lamps described in clause (i) in the ceiling fan lighting kits.”

Subsec. (ff)(6)(B) to (D). Pub. L. 110-140, §316(d)(2)(C), redesignated subpars. (C) and (D) as cls. (i) and (ii), respectively, of subpar. (B).

Subsec. (ff)(7). Pub. L. 110-140, §316(d)(2)(D), substituted “established under section 6294” for “established under section 6297”.

Subsec. (gg). Pub. L. 110-140, §310(3), added subsec. (gg). Former subsec. (gg) redesignated (hh).

Subsec. (hh). Pub. L. 110-140, §324(e)(2), added subsec. (hh). Former subsec. (hh) redesignated (ii).

Pub. L. 110-140, §310(2), (4), redesignated subsec. (gg) as (hh) and substituted “(gg)” for “(ff)” in two places in par. (2).

Subsec. (ii). Pub. L. 110-140, §324(e)(1), (3), redesignated subsec. (hh) as (ii) and substituted “(hh)” for “(gg)” in two places in par. (2).

2005—Subsec. (f)(3)(D). Pub. L. 109-58, §135(c)(1), added subpar. (D).

Subsec. (g)(6)(B). Pub. L. 109-58, §135(c)(2)(A), inserted “and labeled” after “designed”.

Subsec. (g)(8). Pub. L. 109-58, §135(c)(2)(B), added par. (8).

Subsec. (o)(5). Pub. L. 109-58, §135(c)(3), added par. (5). Subsecs. (u) to (gg). Pub. L. 109-58, §135(c)(4), added subsecs. (u) to (gg).

1998—Subsec. (e)(4)(A). Pub. L. 105-388, §5(a)(5)(A), substituted “paragraph” for “paragraphs”.

Subsec. (g). Pub. L. 105-388, §5(a)(5)(B), substituted “ballasts” for “ballasts;” in heading.

1992—Subsecs. (i) to (k). Pub. L. 102-486, §123(f)(2), added subsecs. (i) to (k). Former subsecs. (i) to (k) redesignated (l) to (n), respectively.

Subsec. (l). Pub. L. 102-486, §123(f)(1), redesignated subsec. (i) as (l). Former subsec. (l) redesignated (o).

Subsec. (l)(1). Pub. L. 102-486, §123(f)(3), substituted “paragraph (19)” for “paragraph (14)” and “subsections (o) and (p)” for “subsections (l) and (m)”.

Subsec. (l)(2). Pub. L. 102-486, §123(f)(3)(A), substituted “(19)” for “(14)”.

Subsec. (l)(3). Pub. L. 102-486, §123(f)(3)(B), substituted “(o) and (p)” for “(l) and (m)”.

Subsec. (m). Pub. L. 102-486, §123(f)(1), (4), redesignated subsec. (j) as (m) and substituted “(i)” for “(h)” in introductory provisions. Former subsec. (m) redesignated (p).

Subsec. (n). Pub. L. 102-486, §123(f)(1), redesignated subsec. (k) as (n). Former subsec. (n) redesignated (q).

Subsec. (n)(1). Pub. L. 102-486, §123(f)(5)(A), substituted “, and in paragraphs (13) and (14)” for “and in paragraph (13)” and “subsections (b) through (i)” for “subsections (b) through (h)”.

Subsec. (n)(2)(C). Pub. L. 102-486, §123(f)(5)(B), substituted “subsection (o)(2)(B)(i)(II)” for “subsection (l)(2)(B)(i)(II)”.

Subsec. (n)(3)(B). Pub. L. 102-486, §123(f)(5)(C), inserted “general service fluorescent lamps, incandescent reflector lamps,” after “fluorescent lamp ballasts.”

Subsec. (o). Pub. L. 102-486, §123(f)(1), redesignated subsec. (l) as (o). Former subsec. (o) redesignated (r).

Subsec. (o)(1). Pub. L. 102-486, §123(f)(6)(A), inserted “, or, in the case of showerheads, faucets, water closets, or urinals, water use,” after “energy use.”

Subsec. (o)(2)(A). Pub. L. 102-486, §123(f)(6)(B), inserted “, or, in the case of showerheads, faucets, water closets, or urinals, water efficiency,” after “energy efficiency”.

Subsec. (o)(2)(B)(i)(III). Pub. L. 102-486, §123(f)(6)(C), inserted “, or as applicable, water,” after “energy”.

Subsec. (o)(2)(B)(i)(VI). Pub. L. 102-486, §123(f)(6)(D), inserted “and water” after “energy”.

Subsec. (o)(2)(B)(iii). Pub. L. 102-486, §123(f)(6)(E), substituted “energy, and as applicable, water, savings” for “energy savings”.

Subsec. (o)(3)(B). Pub. L. 102-486, §123(f)(6)(F), inserted “, in the case of showerheads, faucets, water closets, or urinals, water, or” after “energy or”.

Subsec. (p). Pub. L. 102-486, §123(f)(1), redesignated subsec. (m) as (p). Former subsec. (p) redesignated (s).

Subsec. (p)(3)(A). Pub. L. 102-486, §123(f)(7), substituted “subsection (o)(2)” for “subsection (l)(2)” and “subsection (o)(4)” for “subsection (l)(4)”.

Subsecs. (q) to (t). Pub. L. 102-486, §123(f)(1), redesignated subsecs. (n) to (q) as (q) to (t), respectively.

1988—Subsec. (e)(1)(C). Pub. L. 100-357, §2(e)(3), inserted “Volume” after “Rated Storage”.

Subsec. (g). Pub. L. 100-357, §2(e)(1)(A), inserted “; fluorescent lamp ballasts;” in heading.

Subsec. (g)(5) to (7). Pub. L. 100-357, §2(e)(1)(B), added pars. (5) to (7).

Subsec. (i)(1), (2). Pub. L. 100-357, §2(e)(2), substituted “(14)” for “(13)”.

Subsec. (j)(B). Pub. L. 100-357, §2(e)(4)(A), inserted “fluorescent lamp ballasts,” after “clothes dryers,” and substituted “heating” for “hearing”.

Subsec. (k)(1). Pub. L. 100-357, §2(e)(4)(B)(i), inserted “and in paragraph (13)” after “(11)”.

Subsec. (k)(3)(B). Pub. L. 100-357, §2(e)(4)(B)(ii), inserted “fluorescent lamp ballasts,” after “clothes dryers.”

1987—Pub. L. 100-12 amended section generally, revising and restating as subsecs. (a) to (q) provisions formerly contained in subsecs. (a) to (j).



1978—Subsec. (a). Pub. L. 95-619 substituted provisions authorizing Secretary to prescribe an energy efficiency standard for each type of covered product specified in section 6292(a)(1) to (13) of this title, authorizing such prescription for any type of covered product specified in section 6292(a)(14) of this title where certain conditions are found to exist, and requiring publication of a list of those types of covered products considered subject to prescribed standards in the Federal Register not later than two years after Nov. 9, 1978, for provisions requiring the Administrator, meaning the Administrator of the Federal Energy Administration, to direct the National Bureau of Standards to develop an energy efficiency improvement target for each type of covered product listed in section 6292(a)(1) to (10) of this title, requiring prescription of such a target by the Administrator not later than ninety days after Aug. 14, 1976, requiring such targets be designed to exceed by 1980 by at least twenty percent the aggregate energy efficiency of the covered products as manufactured in 1972, requiring similar energy efficiency targets be prescribed for covered products specified in section 6292(a)(11) to (13) of this title not later than one year after Aug. 14, 1976, authorizing the Administrator to modify periodically any established targets, requiring the manufacturers of any covered products to submit reports as requested by the Administrator to help in establishing and reaching such targets, authorizing the Administrator to commence proceedings in certain situations to prescribe initial or revised targets, specifying when improvements of energy efficiency are economically justified, and authorizing the Attorney General to determine any negative effects on competition so as to make certain improvements economically unjustified.

Subsec. (b). Pub. L. 95-619 substituted provisions specifying preconditions for prescription of a standard for a type or class of covered products for provisions specifying the procedure to be followed in prescribing energy efficiency standards.

Subsec. (c). Pub. L. 95-619 substituted provisions requiring energy efficiency standards for each type of covered products be designed to achieve the maximum improvement in energy efficiency which the Secretary determines feasible and justified and requiring such standards be phased in over a period not to exceed five years for provisions relating to the prescription of test procedures and the requirements necessary to meet minimum energy efficiency levels.

Subsec. (d). Pub. L. 95-619 substituted provisions relating to a determination by the Secretary of the economic justification of any particular energy efficiency standard and a determination by the Attorney General of the impact on competition of any proposed standard for provisions relating to labeling rules.

Subsecs. (e) to (j). Pub. L. 95-619 added subsecs. (e) to (j).

1976—Subsec. (a)(1)(A). Pub. L. 94-385, §161(a), transferred authority to determine energy targets from the Administrator to the National Bureau of Standards and substituted 90 days after August 14, 1976, for 180 days after December 22, 1975, for the promulgation of rules by the Administrator.

Subsec. (a)(2). Pub. L. 94-385, §161(b), transferred authority to determine energy targets from the Administrator to the National Bureau of Standards and substituted one year after August 14, 1976, for one year after December 22, 1975, for the promulgation of rules by the Administrator.

#### EFFECTIVE DATE OF 2012 AMENDMENT

Amendment by section 10(a)(1), (8), (11) of Pub. L. 112-210 effective as if included in the Energy Independence and Security Act of 2007, Pub. L. 110-140, see section 10(a)(13) of Pub. L. 112-210, set out as a note under section 6291 of this title.

Pub. L. 112-210, §10(b)(2), Dec. 18, 2012, 126 Stat. 1525, provided that: "This subsection [amending this section] and the amendment made by this subsection take effect as if included in the Energy Policy Act of 2005 (Public Law 109-58; 119 Stat. 594)."

#### EFFECTIVE DATE OF 2007 AMENDMENT

Amendment by Pub. L. 110-140 effective on the date that is 1 day after Dec. 19, 2007, see section 1601 of Pub. L. 110-140, set out as an Effective Date note under section 1824 of Title 2, The Congress.

#### LIGHTING TECHNOLOGY RESEARCH AND DEVELOPMENT PROGRAM

Pub. L. 110-140, title III, §321(g), Dec. 19, 2007, 121 Stat. 1586, provided that:

"(1) IN GENERAL.—The Secretary [of Energy] may carry out a lighting technology research and development program—

"(A) to support the research, development, demonstration, and commercial application of lamps and related technologies sold, offered for sale, or otherwise made available in the United States; and

"(B) to assist manufacturers of general service lamps in the manufacturing of general service lamps that, at a minimum, achieve the wattage requirements imposed as a result of the amendments made by subsection (a) [amending this section and sections 6291 and 6292 of this title].

"(2) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to carry out this subsection \$10,000,000 for each of fiscal years 2008 through 2013.

"(3) TERMINATION OF AUTHORITY.—The program under this subsection shall terminate on September 30, 2015."

#### § 6296. Requirements of manufacturers

##### (a) In general

Each manufacturer of a covered product to which a rule under section 6294 of this title applies shall provide a label which meets, and is displayed in accordance with, the requirements of such rule. If such manufacturer or any distributor, retailer, or private labeler of such product advertises such product in a catalog from which it may be purchased, such catalog shall contain all information required to be displayed on the label, except as otherwise provided by rule of the Commission. The preceding sentence shall not require that a catalog contain information respecting a covered product if the distribution of such catalog commenced before the effective date of the labeling rule under section 6294 of this title applicable to such product.

##### (b) Notification

(1) Each manufacturer of a covered product to which a rule under section 6294 of this title applies shall notify the Secretary or the Commission—

(A) not later than 60 days after the date such rule takes effect, of the models in current production (and starting serial numbers of those models) to which such rule applies; and

(B) prior to commencement of production, of all models subsequently produced (and starting serial numbers of those models) to which such rule applies.

(2) If requested by the Secretary or Commission, the manufacturer of a covered product to which a rule under section 6294 of this title applies shall provide, within 30 days of the date of the request, the data from which the information included on the label and required by the rule was derived. Data shall be kept on file by the manufacturer for a period specified in the rule.

(3) When requested—