



U.S. DEPARTMENT OF
ENERGY

Energy Conservation Standards Activities

Report to Congress
February 2018

United States Department of Energy
Washington, DC 20585

Message from the Principal Deputy Assistant Secretary

I am pleased to provide you with the semi-annual Implementation Report on Energy Conservation Standards Activities of the U.S. Department of Energy (DOE). This report meets the requirements of section 141 of the Energy Policy Act of 2005 (EPACT 2005) and section 305 of the Energy Independence and Security Act of 2007 (EISA 2007). Because the reporting intervals and requirements are similar for the EPACT 2005 and EISA 2007 reports, DOE provides a consolidated report.

DOE is required by EPACT 2005 and EISA 2007 to provide semi-annual implementation reports pertaining to DOE's deadlines regarding new or amended energy conservation standards. This implementation report includes a summary of DOE's progress relative to the last report, which was submitted in August 2016.

For more information on DOE's Appliance and Equipment Standards Program and the rulemakings detailed in this report, please visit the Program's website at:
<http://energy.gov/eere/buildings/appliance-and-equipment-standards-program>.

This report is being provided to the following Members of Congress:

- **The Honorable Michael R. Pence**
President of the Senate
- **The Honorable Paul D. Ryan**
Speaker of the House of Representatives
- **The Honorable Lisa Murkowski**
Chairman, Senate Committee on Energy and Natural Resources
- **The Honorable Maria Cantwell**
Ranking Member, Senate Committee on Energy and Natural Resources
- **The Honorable Greg Walden**
Chairman, House Committee on Energy and Commerce
- **The Honorable Frank Pallone, Jr.**
Ranking Member, House Committee on Energy and Commerce

Please contact me, Ms. Jennifer Loraine, Deputy Assistant Secretary for Senate Affairs, Office of Congressional and Intergovernmental Affairs, or Mr. Marty Dannenfelser, Deputy Assistant Secretary for House Affairs, Office of Congressional and Intergovernmental Affairs, at (202) 586-5450.

Sincerely,

A handwritten signature in blue ink that reads "Daniel R. Simmons". The signature is fluid and cursive, with a long horizontal line extending from the end.

Daniel R Simmons
Principal Deputy Assistant Secretary
Energy Efficiency and Renewable Energy

Executive Summary

This semi-annual implementation report covers past, present, and future DOE rulemaking activities within the Appliance and Equipment Standards Program.

Since the last report, DOE completed numerous rulemaking actions, including final rules pertaining to energy conservation standards for miscellaneous residential refrigeration, central air conditioners, dedicated-purpose pool pumps, ceiling fans, walk-in coolers and freezers, and rough service lamps and vibration service lamps; and test procedures for compact fluorescent lamps, general service lamps, commercial water heaters, cooking products, walk-in coolers and freezers, water heaters (conversion factor), central air conditioners, and dedicated-purpose pool pumps.



ENERGY CONSERVATION STANDARDS ACTIVITIES

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I. Legislative Language

This report responds to legislative language set forth in section 141 of the Energy Policy Act of 2005 (EPACT 2005), Pub. L. 109-58, and section 305 of the Energy Independence and Security Act of 2007 (EISA 2007), Pub. L. 110-140, to provide semi-annual updates of the U.S. Department of Energy's (DOE's) progress with respect to rulemaking actions regarding the implementation of energy conservation standards and test procedures.

Section 141 of EPACT 2005 requires both an initial report and semi-annual implementation reports, until such time as DOE has promulgated all of the overdue energy conservation standards. This document represents the twenty-first semi-annual implementation report.

Section 305 of EISA 2007 expands DOE's existing reporting requirements to include progress reports on all rulemaking activities required by EISA 2007.¹

Because the topics and reporting intervals in section 141 of EPACT 2005 and section 305 of EISA 2007 are substantially similar, DOE began consolidating the reports starting with the first EISA 2007 implementation report in February 2008. This report constitutes the eighteenth semi-annual EISA 2007 implementation report.

¹ In the past several reports, DOE had also cited to a reporting requirement under section 321 of EISA 2007, which required that beginning in July 2013, DOE must submit semi-annual reports to Congress on the lighting rulemakings contained in EISA 2007. It specifically required a report on whether DOE will meet the deadlines for lighting rulemakings, a description of any impediments to meeting the deadlines, and a specific plan to remedy any failures, including recommendations for additional legislation or resources. However, the reporting requirements of section 321 of EISA 2007 sunset as of July 1, 2016 and were last included in the August 2016 Report to Congress.

II. Implementation Update

In the following sections, DOE details the notices it has issued since the last implementation report, as well as any statutory deadlines DOE has missed and rulemakings DOE is currently developing to meet the requirements of EPCA 2005, EISA 2007, and the American Energy Manufacturing Technical Corrections Act (AEMTCA).

Published Energy Conservation Standards Rulemaking Documents Since the Last Implementation Report

Since publication of the last implementation report, DOE has completed the following energy conservation standards rulemaking notices, as set forth below in reverse chronological order by type of notice and publication date.

Product	Event	Publish Date	Citation
Rough Service Lamps and Vibration Service Lamps	Final Rule	12/26/2017	82 FR 60845
Walk-In Coolers and Freezers	Final Rule	7/10/2017	82 FR 31808
Dedicated-Purpose Pool Pumps	Direct Final Rule (Confirmation of Rulemaking)	5/26/2017	82 FR 24218
Miscellaneous Residential Refrigeration	Direct Final Rule (Confirmation of Rulemaking)	5/26/2017	82 FR 24214
Central Air Conditioners and Heat Pumps	Direct Final Rule (Confirmation of Rulemaking)	5/26/2017	82 FR 24211
Ceiling Fans	Final Rule (Confirmation of Rulemaking)	5/24/2017	82 FR 23723
Ceiling Fans	Final Rule (Delay of Effective Date)	3/21/2017	82 FR 14427
Ceiling Fans	Final Rule (Delay of Effective Date)	1/31/2017	82 FR 8806
General Service Lamps	Final Rule	1/19/2017	82 FR 7322
General Service Lamps	Final Rule	1/19/2017	82 FR 7276
Ceiling Fans	Final Rule	1/19/2017	82 FR 6826
Dedicated-Purpose Pool Pumps	Direct Final Rule	1/18/2017	82 FR 5650
Central Air Conditioners and Heat Pumps	Direct Final Rule	1/6/2017	82 FR 1786
Dishwashers	Final Rule	12/13/2016	81 FR 90072
Commercial Compressors	Final Determination	11/15/2016	81 FR 79991
Miscellaneous Residential Refrigeration	Direct Final Rule	10/28/2016	81 FR 75194
Direct Heating Equipment	Final Determination	10/17/2016	81 FR 71325
Error Correction Process	Final Rule	8/24/2016	81 FR 57745
Residential Furnaces	Supplemental Notice of Proposed Rulemaking (SNOPR)	9/23/2016	81 FR 65720
Conventional Cooking Products	SNOPR	9/2/2016	81 FR 60784
Dedicated-Purpose Pool Pumps	Notice of Proposed Rulemaking (NOPR)	1/18/2017	82 FR 5446
Central Air Conditioners and Heat Pumps	NOPR	1/6/2017	82 FR 1608
Miscellaneous Residential Refrigeration	NOPR	10/28/2016	81 FR 74950

Product	Event	Publish Date	Citation
Walk-In Coolers and Freezers	NOPR	9/13/2016	81 FR 62980
General Service Incandescent Lamps	Notice of Data Availability (NODA)	8/15/2017	82 FR 38613
Commercial Water Heating Equipment	NODA	12/23/2016	81 FR 94234
Commercial and Industrial Fans and Blowers	NODA	11/1/2016	81 FR 75742
Central Air Conditioners and Heat Pumps	NODA	10/27/2016	81 FR 74727
General Service Lamps	NODA	10/18/2016	81 FR 71794

Published Test Procedure Rulemaking Documents Since the Last Implementation Report

Since publication of the last implementation report, DOE has completed the following test procedure rulemaking notices, as set forth below in reverse chronological order by type of notice and publication date.

Product	Event	Publish Date	Citation
Dedicated-Purpose Pool Pumps	Final Rule	8/7/2017	82 FR 36858
Central Air Conditioners and Heat Pumps	Final Rule (Delay of Effective Date)	7/13/2017	82 FR 32227
Central Air Conditioners and Heat Pumps	Final Rule (Technical Amendment)	3/29/2017	82 FR 15457
Central Air Conditioners and Heat Pumps	Final Rule (Delay of Effective Date)	3/21/2017	82 FR 14425
Commercial Compressors	Final Rule (Delay of Effective Date)	3/21/2017	82 FR 14426
Walk-In Coolers and Freezers	Final Rule (Delay of Effective Date)	3/21/2017	82 FR 14426
Central Air Conditioners and Heat Pumps	Final Rule (Delay of Effective Date)	2/2/2017	82 FR 8985
Commercial Compressors	Final Rule (Delay of Effective Date)	2/2/2017	82 FR 8985
Walk-In Coolers and Freezers	Final Rule (Delay of Effective Date)	1/31/2017	82 FR 8805
Central Air Conditioners and Heat Pumps	Final Rule	1/5/2017	82 FR 1426
Commercial Compressors	Final Rule	1/4/2017	82 FR 1052
Water Heaters Conversion (Crosswalk)	Final Rule	12/29/2016	81 FR 96204
Walk-In Coolers and Freezers	Final Rule	12/28/2016	81 FR 95758
Conventional Cooking Products	Final Rule	12/16/2016	81 FR 91418
Dishwashers	Final Rule	12/13/2016	81 FR 90072
Uninterruptible Power Supplies	Final Rule	12/12/2016	81 FR 89806
Commercial Packaged Boilers	Final Rule	12/9/2016	81 FR 89276
Commercial Packaged Boilers	Final Rule (Withdrawal)	12/7/2016	81 FR 88098
Commercial Packaged Boilers	Final Rule	11/10/2016	81 FR 79224
Commercial Water Heaters (excluding residential-duty commercial water heaters)	Final Rule	11/10/2016	81 FR 79261
General Service Lamps	Final Rule	10/20/2016	81 FR 72493

Product	Event	Publish Date	Citation
Compact Fluorescent Lamps	Final Rule	8/29/2016	81 FR 59386
Water Heaters Conversion (Crosswalk)	SNOPR	8/30/2016	81 FR 59736
Central Air Conditioners and Heat Pumps (M1)	SNOPR	8/24/2016	81 FR 58164
Conventional (Induction) Cooking Products	SNOPR	8/22/2016	81 FR 57374
Manufactured Housing	NOPR	11/9/2016	81 FR 78733
Light-Emitting Diode Lamps	NOPR	11/4/2016	81 FR 76877
Dedicated Purpose Pool Pumps	NOPR	9/20/2016	81 FR 64580
Walk-In Coolers and Freezers	NOPR	8/17/2016	81 FR 54926
Microwave Ovens	Request for Information (RFI)	1/18/2018	83 FR 2566
Distribution Transformers	RFI	9/22/2017	82 FR 44347
General Service Fluorescent Lamps, General Service Incandescent Lamps, Incandescent Reflector Lamps	RFI	8/8/2017	82 FR 37031
Room Air Conditioners	RFI	8/4/2017	82 FR 36349
Small Electric Motors and Electric Motors	RFI	7/31/2017	82 FR 35468
ASHRAE Equipment	RFI	7/25/2017	82 FR 34427
Commercial Compressors	RFI	7/11/2017	82 FR 31890
Refrigerators, Freezers, and Refrigerator-Freezers	RFI	6/30/2017	82 FR 29780

Current DOE Rulemakings with a Missed Statutory Deadline

The following table lists currently ongoing rulemakings with outstanding judicial or statutory deadlines. DOE is working to complete these rulemakings as expeditiously as possible.

Product	Type	Driver	Current Rulemaking Stage
Manufactured Housing	Energy Conservation Standard	EISA 2007	Final Rule
Commercial Water Heaters - Unfired Hot Water Storage Tanks	Energy Conservation Standard	AEMTCA	In Development
Commercial Water Heaters - Unfired Hot Water Storage Tanks	Test Procedure	7-Year Review	In Development
Illuminated Exit Signs	Test Procedure	7-Year Review	NOPR
Microwave Ovens (Active Mode)	Test Procedure	7-Year Review	In Development
Water-Sourced Heat Pumps	Test Procedure	7-Year Review	In Development
Traffic Signal Modules and Pedestrian Modules	Test Procedure	7-Year Review	NOPR
Small Electric Motors	Energy Conservation Standard	6-Year Review	In Development
Consumer Water Heaters	Energy Conservation Standard	6-Year Review	In Development
Pool Heaters	Energy Conservation Standard	6-Year Review	In Development
Residential Furnaces (non-weatherized gas furnaces & mobile home furnaces)	Energy Conservation Standard	Court Action	Final Rule
Small Electric Motors	Test Procedure	7-Year Review	In Development
Metal Halide Ballasts	Test Procedure	7-Year Review	In Development
Five Exempted Lamp Types	Determination	EISA 2007	In Development
Clothes Dryers	Energy Conservation Standard	6-Year Review	In Development
Room Air Conditioners	Energy Conservation Standard	6-Year Review	In Development

Product	Type	Driver	Current Rulemaking Stage
Dedicated Outdoor Air Systems	Energy Conservation Standard	ASHRAE Trigger	NODA
Computer Room Air Conditioners	Energy Conservation Standard	ASHRAE Trigger	NODA
Variable-Refrigerant-Flow Equipment	Energy Conservation Standard	ASHRAE Trigger	NODA
Conventional Cooking Products	Energy Conservation Standard	6-Year Review	Final Rule
Residential Refrigerators and Freezers	Energy Conservation Standard	6-Year Review	In Development
Fluorescent Lamp Ballasts	Energy Conservation Standard	6-Year Review	In Development
Room Air Conditioners	Test Procedure	7-Year Review	In Development

Current DOE Rulemakings with an Upcoming Statutory Deadline

The table below reflects the ongoing energy conservation standards and test procedure rulemakings that DOE is developing in order to comply with court orders, EPACT 2005, EISA 2007, and AEMTCA.

Product	Type	Driver	Current Rulemaking Stage
Commercial Water Heaters	Energy Conservation Standard	AEMTCA / 6-Year Review	Final Rule
Computer Room Air Conditioners	Energy Conservation Standard	ASHRAE Trigger	NODA
Dedicated Outdoor Air Systems	Energy Conservation Standard	ASHRAE Trigger	NODA
Variable-Refrigerant-Flow Equipment	Energy Conservation Standard	ASHRAE Trigger	NODA
Dedicated Outdoor Air Systems	Test Procedure	Standards Support / ASHRAE Trigger	In Development
Variable-Refrigerant-Flow Equipment	Test Procedure	Standards Support / ASHRAE Trigger	In Development
Computer Room Air Conditioners	Test Procedure	Standards Support / ASHRAE Trigger	In Development
Fluorescent Lamp Ballasts	Test Procedure	7-Year Review	NOPR
Residential Clothes Washers	Energy Conservation Standard	6-Year Review	In Development
Commercial Unitary Air Conditioning and Heating Equipment – Evaporatively-Cooled	Energy Conservation Standard	6-Year Review	In Development
Commercial Unitary Air Conditioning and Heating Equipment – Water-Cooled	Energy Conservation Standard	6-Year Review	In Development
Metal Halide Light Fixtures	Energy Conservation Standard	EISA 2007	In Development
Automatic Commercial Ice Makers	Test Procedure	7-Year Review	In Development
General Service Fluorescent Lamps	Test Procedure	7-Year Review	In Development
General Service Incandescent Lamps	Test Procedure	7-Year Review	In Development
Incandescent Reflector Lamps	Test Procedure	7-Year Review	In Development
Clothes Washers	Test Procedure	7-Year Review	In Development
Distribution Transformers	Energy Conservation Standard	6-Year Review	In Development
3-Phase Less than 5-ton Commercial Unitary Air Conditioning and Heating Equipment – Air-Cooled	Test Procedure	7-Year Review	In Development

Product	Type	Driver	Current Rulemaking Stage
Commercial Unitary Air Conditioning and Heating Equipment – Evaporatively-Cooled	Test Procedure	7-Year Review	In Development
Commercial Unitary Air Conditioning and Heating Equipment – Water-Cooled	Test Procedure	7-Year Review	In Development
Single-Packaged Vertical Air Conditioners and Heat Pumps	Test Procedure	7-Year Review	In Development
Microwave Ovens (Standby Mode)	Energy Conservation Standard	6-Year Review	In Development
Dishwashers	Test Procedure	7-Year Review	In Development
Walk-In Coolers and Freezers	Energy Conservation Standard	EISA 2007	In Development
Microwave Ovens (Standby Mode)	Test Procedure	7-Year Review	In Development
External Power Supplies Non-Class A	Energy Conservation Standard	6-Year Review	In Development
Commercial Refrigeration Equipment	Energy Conservation Standard	EPACT 2005	In Development
Distribution Transformers	Test Procedure	7-Year Review	In Development
Electric Motors	Energy Conservation Standard	6-Year Review	In Development
Furnace Fans	Energy Conservation Standard	6-Year Review	In Development
Clothes Dryers	Test Procedure	7-Year Review	In Development
Faucets	Test Procedure	7-Year Review	In Development
Showerheads	Test Procedure	7-Year Review	In Development
Urinals	Test Procedure	7-Year Review	In Development
Water Closets	Test Procedure	7-Year Review	In Development
Television Sets	Test Procedure	7-Year Review	In Development
Electric Motors	Test Procedure	7-Year Review	In Development
Commercial Clothes Washers	Energy Conservation Standard	6-Year Review	In Development
General Service Fluorescent Lamps	Energy Conservation Standard	6-Year Review	In Development