

Implementation Report:
Energy Conservation Standards Activities

Submitted Pursuant to:
Section 141 of the Energy Policy Act of 2005
&
Section 305 of the Energy Independence and
Security Act of 2007

U.S. Department of Energy
August 2009

Table of Contents

List of Acronyms 3

Introduction 4

Backlog and EPACK 2005 5

State of New York, et al. v. Bodman; and NRDC, Inc. et al. v. Bodman5

Energy Independence and Security Act of 2007 6

Multi-Year Schedule and Implementation Update..... 7

 Update on Backlogged Standards8

 Multi-Year Schedule9

Implementation Update 15

 Published Rulemaking Documents Since the Last Implementation Report15

 Progress Reports of Appliance Product Teams (By Product).....18

 Heating Team 18

 Transformers and Motors Team 19

 Lighting Team 21

 Home Appliance Team 24

 Space Cooling Team 27

 Commercial Refrigeration Team..... 27

 Battery Chargers and External Power Supplies Team 28

Tables

Table 1. Status of Backlogged Rulemakings..... 9

Table 2. Multi-Year Schedule to Issue One Standard for Each Product in the Backlog, and to Develop One Standard for Each Product per EPACK 2005 and EISA 2007 11

List of Acronyms

ANOPR – Advance Notice of Proposed Rulemaking
ANSI – American National Standards Institute
ASHRAE – American Society of Heating, Refrigerating and Air-Conditioning Engineers
Btu/h – British thermal units per hour
DOE – U.S. Department of Energy
EISA 2007– Energy Independence and Security Act of 2007
EPACT 2005 – Energy Policy Act of 2005
EPCA – Energy Policy and Conservation Act
GSFL – General Service Fluorescent Lamp
GSIL – General Service Incandescent Lamp
HID – High-Intensity Discharge (lamps)
IEC – International Electrotechnical Commission
IES – Illuminating Engineering Society of North America (or IESNA)
IRL – Incandescent Reflector Lamp
LED – Light-Emitting Diode
NODA – Notice of Data Availability
NOPD – Notice of Proposed Determination
NOPM – Notice of Public Meeting
NOPR – Notice of Proposed Rulemaking
OLED – Organic Light-Emitting Diode
SNOPR – Supplemental Notice of Proposed Rulemaking

Introduction

This report was prepared in response to section 141 of the Energy Policy Act of 2005 (EPACT 2005), Pub. L. 109-58, which pertains to the U.S. Department of Energy's (DOE) past noncompliance with statutory deadlines for the issuance of new or amended energy conservation standards, and in response to section 305 of the Energy Independence and Security Act of 2007 (EISA 2007), Pub. L. 110-140.

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 standards. This document represents the seventh such 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. 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 fourth semi-annual EISA 2007 implementation report.

Backlog and EPACT 2005

DOE submitted its initial report to Congress on January 31, 2006. In the initial report, DOE documented the history of the Appliance Standards Program, which is the program responsible for the development of test procedures and energy conservation standards for residential appliances and commercial equipment subject to regulation. The initial report provided a description of the rulemaking process and detailed the statutory requirements applicable to the Appliance Standards Program. The initial report also explained the historical reasons for DOE's past failure to meet identified statutory deadlines, and described current and planned productivity enhancements that DOE began to implement in order to expedite the standards rulemaking process. Finally, the initial report set an aggressive rulemaking schedule, designed to permit DOE to both address the backlog of rulemakings and to meet deadlines associated with the new requirements of EPACT 2005.

State of New York, et al. v. Bodman; and NRDC, Inc. et al. v. Bodman

DOE notes that the separate court proceedings (*State of New York, et al. v. Bodman* and *NRDC, Inc. et al. v. Bodman*) mentioned in the August 2006 report resulted in a consolidated consent decree between the plaintiffs and DOE (filed November 6, 2006). The consent decree largely adopts the schedule DOE published in its January 31, 2006, initial report to Congress under section 141 of EPACT 2005. However, the consent decree's rulemaking schedule adds the following two additional items:

1. The consent decree requires DOE to publish a small electric motors test procedure by June 30, 2009, (now complete), and requires an energy conservation standard final rule for the same product by February 28, 2010. These two actions were not included in the initial report to Congress because DOE was conducting the determination analysis for small electric motors at the time the initial report was written (*i.e.*, DOE had not yet determined whether a rulemaking and test procedure were necessary).
2. The consent decree puts into place a binding schedule for DOE action in response to future amendments of Standard 90.1 by the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE). Specifically, within six months of an ASHRAE amendment, DOE must publish an analysis of the energy savings potential of amended energy conservation standards. DOE must either adopt ASHRAE's amendment within 18 months of ASHRAE's adoption or establish a more stringent standard within 30 months.

Energy Independence and Security Act of 2007

On December 19, 2007, the President signed into law the Energy Independence and Security Act of 2007, Pub. L. 110-140. This statute, in part, amends the Energy Policy and Conservation Act of 1975 (EPCA), Pub. L. 94-163 (42 U.S.C. 6291 *et seq.*), and increases the number of rulemakings DOE must issue beyond the obligations set forth in EPACT 2005 and the backlogged products mentioned in previous implementation reports. The enactment of EISA 2007 has substantially elevated the level of activity within the Appliance Standards Program. The statute requires DOE to develop several new test procedures and energy conservation standards, as discussed below. In addition, EISA 2007 prescribes new energy conservation standards and test procedures for certain products, which DOE must also implement.

EISA 2007 prescribes energy conservation standards for a number of products which were already the subject of an active rulemaking. By prescribing standards for these products, EISA 2007 eliminated or modified DOE's obligation to develop these standards. As a result, some rulemakings underway were significantly impacted. For example, the electric motors (1-200 hp) rulemaking was scheduled to be initiated in the first quarter of fiscal year 2008. This rule was superseded by standards set in section 313 of EISA 2007; therefore the work underway was terminated.

For some rulemakings in which products were bundled, EISA 2007 altered the rulemaking scope by setting standards for some products. Examples of this include the lamps rulemaking and the home appliances, Group 1, rulemaking. In these cases, DOE was able to move forward but was required to modify the scope of the rulemaking in light of the EISA 2007 enactments.

In addition, EISA 2007 introduces new standby power requirements for residential products. All test procedures for covered residential products are required to be amended to include test procedures for standby mode and off mode energy consumption (section 310 of EISA 2007). EISA 2007 specifies deadlines for the incorporation of standby mode and off mode energy consumption into the test procedures of certain enumerated products, including battery chargers, external power supplies, clothes dryers, room air conditioners, fluorescent lamp ballasts, residential clothes washers, residential furnaces, residential boilers, residential water heaters, direct heating equipment, pool heaters, dishwashers, ranges and ovens, microwave ovens, and residential dehumidifiers. In addition, all energy conservation standards for covered products adopted after July 1, 2010, must incorporate standby mode and off mode energy consumption. Several rulemakings to amend the aforementioned test procedures are underway. For each product, DOE is working with interested parties to apply the statutory definitions in EISA 2007 (*e.g.*, the definitions for standby mode and off mode) to the product. In doing so, DOE remains cognizant of industry norms, definitions set by other standards-making bodies, and the technical characteristics of the products.

Furthermore, some of the new standards required by EISA 2007 have deadlines that necessitate immediate action to ensure meeting a final deadline. For instance, a final rule determining whether to amend standards for residential refrigerators is due December 31, 2010 (section 311 of EISA 2007). This provides DOE less than three years to complete all phases of the rulemaking process. DOE's compressed rulemaking schedule, first published in the January 31, 2006 report to Congress, calls for a 36-month schedule starting at the framework public meeting. Because of the short amount of time

remaining and the highly detailed analyses required, DOE will need to add this complex rulemaking to other high-priority activities.

DOE is also attempting to integrate into its existing schedule standards rulemakings for three new products (residential clothes washers, walk-in coolers and freezers, and metal halide lamp fixtures) that are all due to be completed by the end of 2011. Moreover, the statute directs DOE to undertake other standards rulemakings for battery chargers, external power supplies, furnace fans, dishwashers, and general service incandescent lamps. Of the 15 products for which EISA 2007 specified schedules for incorporating standby mode and off mode into the test procedures, eight are due before the end of 2009. The remaining seven are scheduled for completion in 2010 and 2011.

Also, pursuant to a statutory change in EISA 2007, all energy conservation standards and test procedures established by DOE will now be subject to regular periodic review. Not later than six years after issuance of a final rule establishing or amending a standard, DOE must either publish a notice of proposed rulemaking (NOPR) to amend the standard or a notice of determination that an amended standard is not warranted (42 U.S.C. 6295(m)(1) and 6313(a)(6)(C)(i)). DOE must review all test procedures at least once every seven years (42 U.S.C. 6293(b)(1)(A) and 6314(a)(1)).

Multi-Year Schedule and Implementation Update

This section provides a schedule of upcoming DOE rulemakings, along with a detailed description of activities and progress to date.

In the first semi-annual implementation report (submitted in August 2006), DOE described the execution of the productivity enhancements (“bundling” and “valley-filling”¹) that were discussed in the initial report. DOE also provided an update on its improved document review and clearance process, identifying the newly established intra-agency Crosscutting Review Team as the cornerstone of this process. As a result of the productivity enhancements and improved document review and clearance process, DOE was able to report in its first semi-annual implementation report that it was meeting all obligations as scheduled in the initial report to Congress. DOE reached a similar conclusion in subsequent implementation reports (submitted in February 2007, August 2007, February 2008, and August 2008) that it has met all commitments to date.

In the February 2009 implementation report, DOE noted that it had missed one statutory (non-backlog) deadline. Section 310 of EISA 2007 set a deadline of December 31, 2008 for the battery chargers and external power supplies test procedure final rule (related to standby mode and off mode energy consumption). DOE subsequently issued the test procedure final rule on March 11, 2009, and it was published in the *Federal Register* on March 27, 2009 (74 Fed. Reg. 13318).

In addition to the aforementioned test procedure for battery chargers and external power supplies, since the February 2009 implementation report DOE has missed four other deadlines for test procedure final

¹ “Bundling” refers to the combination of two or more products within a single rulemaking. “Valley-filling” is a management technique in which an analytical team can divert its resources from one rulemaking to another while waiting for documents to be reviewed.

rules mandated by EISA 2007. More specifically, EISA 2007 set a deadline of March 31, 2009, for the test procedure final rule for standby and off mode energy consumption for fluorescent lamp ballasts. DOE is currently reviewing this standby and off mode test procedure final rule. For clothes dryers and room air conditioners, EISA 2007 set a deadline of March 31, 2009, for the standby and off mode test procedure final rule. For these latter products, DOE delayed publication of a final rule because it is statutorily directed to consider the most current version of an international consensus standard for standby mode and off mode test procedures, a standard which is currently under revision. Public comments on the NOPR supported consideration of the amended international standard because of questions regarding the adequacy of the current definitions for key terms. EISA 2007 set a deadline of June 30, 2009, for the standby and off mode test procedure final rule for residential clothes washers. DOE similarly delayed publication of this final rule to allow time for consideration of revised international consensus standby mode and off mode test procedures. These actions are described in greater detail in the Progress Report section of this report.

DOE remains committed to complying with future deadlines. In this report, DOE provides an update of its progress toward meeting the schedule set forth in the January 2006 report to Congress, as well as the schedule agreed to in the consent decree in the case of *State of New York, et al. v. Bodman* (discussed above). DOE notes that to date it has met all the deadlines contained in the initial January 2006 rulemaking schedule and all the deadlines set forth in the consent decree. DOE is expediting its activities to the extent practicable in order to complete rulemakings as soon as possible. However, given the aggressive schedule for the rulemaking requirements established in EISA 2007, DOE is working on a greater number of contemporaneous rulemaking proceedings than had been contemplated at the time the consent decree order schedule was submitted to the Court.

Update on Backlogged Standards

When DOE developed the original multi-year schedule in the January 31, 2006, report to Congress, it identified 20 products with backlogged standards.² Of these products, seven had two rounds of backlogged standards, bringing the total number of backlogged standards to 27. In addition, DOE had two backlogged determinations (small electric motors and high-intensity discharge (HID) lamps). As discussed above, DOE completed the determination for small electric motors, and based upon this positive determination, the consent decree added small electric motors to the list of backlogged standards DOE must issue. This brings the number of backlogged products to 21, and the number of backlogged standards to 28.

Since the initial report, DOE has issued efficiency standard final rules for 10 of the 21 backlogged products (residential furnaces; residential boilers; mobile home furnaces; small furnaces; distribution transformers (medium voltage dry-type and liquid immersed); packaged terminal air-conditioners and heat pumps, ranges and ovens, microwave ovens, general service fluorescent lamps, and incandescent reflector lamps). In addition, EISA 2007 prescribed standards for another three backlogged products (electric motors (1-200 hp); general service incandescent lamps; and dishwashers); DOE codified these

² The original backlog consists of 20 products, counting residential boilers separately from residential furnaces, and microwaves separately from ranges and ovens.

standards in its regulations at Parts 430 and 431. Thus, DOE has completed a final rule for 13 of the original 21 backlogged products (including small electric motors). The remaining eight products are the subject of ongoing DOE rulemakings.

Table 1. Status of Backlogged Rulemakings

Backlogged Product	Status of Backlogged Rule
1. Residential furnaces	DOE issued final rule
2. Residential boilers	DOE issued final rule
3. Mobile home furnaces	DOE issued final rule
4. Small furnaces	DOE issued final rule
5. Residential water heaters	Ongoing rulemaking
6. Direct heating equipment [Cycle 1 of 2]	Ongoing rulemaking
7. Pool heaters [Cycle 1 of 2]	Ongoing rulemaking
8. Distribution transformers (MV dry-type and liquid-immersed)	DOE issued final rule
9. Electric motors (1-200 hp) [Cycle 1 of 2]	Standards prescribed by EISA 2007
10. Incandescent reflector lamps [Cycle 1 of 2]	DOE issued final rule
11. Fluorescent lamps [Cycle 1 of 2]	DOE issued final rule
12. Incandescent general service lamps [Cycle 1 of 2]	Standards prescribed by EISA 2007
13. Fluorescent lamp ballasts	Ongoing rulemaking
14. Residential dishwashers	Standards prescribed by EISA 2007
15. Ranges and ovens [Gas-powered Cycle 1 of 2] [Electric-powered Cycle 2 of 2]	DOE issued final rule
16. Microwave ovens	DOE issued final rule
17. Residential clothes dryers	Ongoing rulemaking
18. Room air conditioners	Ongoing rulemaking
19. Packaged terminal air conditioners and heat pumps	DOE issued final rule
20. Residential central air conditioners and heat pumps	Ongoing rulemaking
21. Small Electric Motors	Ongoing rulemaking

Multi-Year Schedule

Table 2 presents DOE’s revised multi-year schedule. It is based on the schedule to which DOE committed in its initial report to Congress, modified to also include an energy conservation standard rulemaking and a test procedure rulemaking for small electric motors (added pursuant to the November 2006 consent decree discussed above) as well as the requirements of EISA 2007 and progress to date. Completed rulemakings and rulemakings involving products for which EISA 2007 prescribed standards were removed from the schedule.

The current schedule addresses the ongoing or upcoming cycle³ of standards that DOE must develop to comply with EPACT 2005 and EISA 2007. The multi-year schedule also addresses the determination analyses for high-intensity discharge lamps, as required by EPCA. In addition, DOE is beginning the first of the periodic reviews of test procedures (at least once every seven years) and energy conservation standards (not later than six years after issuance of a final rule amending standards) as required under sections 302 and 305 of EISA 2007, respectively. These rulemakings are listed as part of the schedule presented in this report. Other rulemakings that review existing test procedures and energy conservation standards will be added to the schedule as they are initiated.

³ For some products, EPCA, as amended by EPACT 2005 and EISA 2007, requires DOE to develop multiple standards over time.

Table 2. Multi-Year Schedule to Issue One Standard for Each Product in the Backlog, and to Develop One Standard for Each Product per EPACT 2005 and EISA 2007

Rulemaking Team	Rule Type	Product(s)	EPACT 2005, Backlog, EISA 2007, Other	Approx. Rule Initiation Date	Final Action Date*
Heating Team	Standards	<ul style="list-style-type: none"> • Water Heaters (Residential) [Backlog Cycle 2] • Direct Heating Equipment [Backlog Cycle 1] • Pool Heaters [Backlog Cycle 1] 	Backlog Backlog Backlog	FY2006, Q4	March 2010
		<ul style="list-style-type: none"> • Furnace Fans 	EISA 2007	FY2010, Q2	December 2013
		<ul style="list-style-type: none"> • Small Furnaces • Mobile Home Furnaces • Residential Furnaces • Residential Boilers 	Voluntary Remand Voluntary Remand Voluntary Remand Voluntary Remand	FY2010, Q1	May 2011
	Test Procedures	<ul style="list-style-type: none"> • Furnaces and Boilers, Standby Mode and Off Mode 	EISA 2007	FY2009, Q1	September 2009
		<ul style="list-style-type: none"> • Furnace Fans 	EISA 2007	FY2010, Q2	December 2012
		<ul style="list-style-type: none"> • Water Heaters (Residential), Standby Mode and Off Mode • Direct Heating Equipment, Standby Mode and Off Mode • Pool Heaters, Standby Mode and Off Mode 	EISA 2007 EISA 2007 EISA 2007	FY2009, Q1	March 2010
	Transformers and Motors	Standards	<ul style="list-style-type: none"> • Small Electric Motors 	Backlog	FY2007, Q3

* Final action dates followed by an asterisk represent a change from the last semi-annual implementation report. For further detail, consult the Progress Reports of Appliance Product Teams (By Product) in the Implementation Update section of the report to Congress.

Rulemaking Team	Rule Type	Product(s)	EPACT 2005, Backlog, EISA 2007, Other	Approx. Rule Initiation Date	Final Action Date*
		• Electric Motors, 1-500 hp ⁴	EISA 2007	FY2010, Q2	December 2012
		• Distribution Transformers	Settlement Agreement	FY2010, Q1	October 2011 / October 2012 ⁵
	Test Procedures	• Electric Motors, 1-500hp	7-Year Review	FY2009, Q1	September 2010
Lighting Team	Determination Analysis	• High-Intensity Discharge Lamps	Backlog	FY2007, Q3	June 2010
	Standards	• Fluorescent Lamp Ballasts [Backlog Cycle 2]	Backlog	FY2008, Q1	June 2011
		• Metal Halide Lamp Fixtures	EISA 2007	FY2009, Q2	January 2012
		• General Service Incandescent Lamps • Compact Fluorescent Lamps • General Service LED • General Service OLED	EISA 2007 EISA 2007 EISA 2007 EISA 2007	FY2014, Q2	January 2017
	Test Procedures	• Metal Halide Lamp Ballasts	EISA 2007	FY2008, Q3	September 2009
		• Fluorescent Lamp Ballasts, Standby Mode and Off Mode	EISA 2007	FY2008, Q2	September 2009
		• Fluorescent Lamp Ballasts	7-Year Review	FY2010, Q1	June 2011

⁴ This rulemaking was previously listed as including only 1-200 hp motors. However, the rulemaking will also consider amending standards for NEMA Design B general purpose electric motors with a power rating of more than 200 horsepower but less than 500 hp. This is discussed in more detail in the Progress Reports section of this report.

⁵ DOE will conduct a review of the standards for distribution transformers and publish by October 1, 2011, either: (1) a determination that standards do not need to be amended, or (2) a NOPR proposing amended standards. If DOE determines amended standards are warranted, DOE will publish the final rule no later than October 1, 2012.

Rulemaking Team	Rule Type	Product(s)	EPACT 2005, Backlog, EISA 2007, Other	Approx. Rule Initiation Date	Final Action Date*
Home Appliance Team	Standards	• Clothes Washers (Commercial) [Revision 1]	EPACT 2005	FY2006, Q2	January 2010
		• Microwave Ovens	6-Year Review	FY2009, Q3	March 2011
		• Clothes Dryers (Residential) [Backlog Cycle 2] • Room Air Conditioners [Backlog Cycle 2]	Backlog Backlog	FY2008, Q1	June 2011
		• Dishwashers	EISA 2007	FY2012, Q2	January 2015
		• Refrigerators (Residential)	EISA 2007	FY2008, Q2	December 2010
		• Clothes Washers (Residential)	EISA 2007	FY2009, Q1	December 2011
		• Kitchen Ranges and Ovens [Revision 2]	EISA 2007	FY2014, Q1	March 2017
	Test Procedures	• Clothes Dryers • Room Air Conditioners	7-Year Review 7-Year Review	FY2009, Q4	June 2011
		• Clothes Dryers, Standby Mode and Off Mode • Room Air Conditioners, Standby Mode and Off Mode	EISA 2007 EISA 2007	FY2008, Q2	June 2010*
		• Refrigerators (Residential)	7-Year Review	FY2008, Q3	May 2010
		• Microwave Ovens, Standby Mode and Off Mode	EISA 2007	FY2008, Q2	March 2011
		• Clothes Washers (Residential), Standby Mode and Off Mode	EISA 2007	FY2009, Q1	June 2010*
		• Clothes Washers (Residential)	7-Year Review	FY2010, Q1	March 2011

Rulemaking Team	Rule Type	Product(s)	EPACT 2005, Backlog, EISA 2007, Other	Approx. Rule Initiation Date	Final Action Date*
		<ul style="list-style-type: none"> Dishwashers (Residential), Standby Mode and Off Mode Ranges and Ovens (Electric and Gas), Standby Mode and Off Mode Dehumidifiers (Residential), Standby Mode and Off Mode 	EISA 2007 EISA 2007 EISA 2007	FY2009, Q3	March 2011
Space Cooling Team	Standards	• Central Air Conditioners and Heat Pumps (Residential) [Backlog Cycle 2]	Backlog	FY2008, Q2	June 2011
		• Packaged Terminal Air-Conditioners and Heat Pumps	EISA 2007	FY2013, Q2	September 2016
	Test Procedures	• Central Air Conditioners and Heat Pumps	7-Year Review	FY2009, Q3	June 2011
Commercial Refrigeration Team	Standards	• Commercial Refrigeration Equipment [Revision 2]	EPACT 2005	FY2010, Q2	January 2013
		• Refrigerated Bottle or Canned Beverage Vending Machines	EPACT 2005	FY2006, Q3	August 2009
		• Automatic Ice Makers (Commercial) [Revision 1]	EPACT 2005	FY2011, Q3	January 2015
		• Walk-In Coolers and Freezers	EISA 2007	FY2009, Q1	January 2012
	Test Procedures	• Walk-In Coolers and Freezers	EISA 2007	FY2009, Q1	January 2010
Battery Chargers and External Power Supplies Team	Determination Analysis	• External Power Supplies (non-Class A)	EPACT 2005, EISA 2007	FY2007, Q1	December 2009
	Standards	<ul style="list-style-type: none"> Battery Chargers External Power Supplies (Class A) 	EISA 2007 EISA 2007	FY2008, Q2	July 2011
	Test Procedures	<ul style="list-style-type: none"> Battery Chargers External Power Supplies (Class A) External Power Supplies (non-Class A) 	7-Year Review 7-Year Review 7-Year Review	FY2009, Q1	July 2011

Implementation Update

Since the last implementation report, DOE has explored process efficiency improvements afforded it by EISA 2007. Section 307 of EISA 2007 removed the requirement for DOE to publish an advance notice of proposed rulemaking (ANOPR) for rulemakings on energy conservation standards for residential products. Because it has been DOE's experience that comments from interested parties at the early stages of the rulemaking are vital to producing a sound standard, DOE is holding public meetings during what would typically have been the ANOPR stage. In lieu of the ANOPR, DOE has begun to issue preliminary technical support documents on its website (http://www1.eere.energy.gov/buildings/appliance_standards). The meetings allow DOE to discuss the analysis presented in the preliminary technical support document with interested parties and to receive comment thereon.

Since publication of the February 2009 semi-annual implementation report, DOE has published six final rules for thirteen products. This includes energy conservation standards for: (1) ranges and ovens; (2) microwave ovens; (3) general service fluorescent lamps; (4) incandescent reflector lamps; (5) commercial package boilers; (6) very large commercial package air conditioning and heating equipment and test procedure final rules for: (7) battery chargers; (8) external power supplies; (9) general service incandescent lamps; (10) incandescent reflector lamps; (11) general service fluorescent lamps; (12) small electric motors, and (13) commercial package boilers. At the time of this report, DOE has issued an additional energy conservation standard final rule for beverage vending machines that has not yet been published in the *Federal Register*. DOE has also completed the codification of prescribed standards for fourteen products contained in EISA 2007. These publications are listed in greater detail below.

Published Rulemaking Documents Since the Last Implementation Report

Since publication of the February 2009 semi-annual implementation report, DOE has (as set forth below in chronological order):

- Published a NOPR to amend the energy conservation standard and test procedure for commercial packaged boilers and to adopt a new energy conservation standard for water cooled and evaporatively cooled commercial packaged air conditioners and heat pumps with a cooling capacity at or above 240,000 Btu/h and less than 760,000 Btu/h. The NOPR was issued on March 10, 2009 and was published in the *Federal Register* on March 20, 2009 (74 Fed. Reg. 12000).
- Published a final rule technical amendment to codify the definitions, energy conservation standards, and test procedures prescribed by EISA 2007. The

technical amendment was issued March 11, 2009 and was published in the *Federal Register* on March 23, 2009 (74 Fed. Reg. 12058).

- Published a final rule establishing test procedures for battery chargers and external power supplies to measure standby mode and off mode energy consumption. The final rule was issued on March 11, 2009 and was published in the *Federal Register* on March 27, 2009 (74 Fed. Reg. 13318).
- Published a final rule for the gas and electric ranges and ovens and microwave ovens energy conservation standard. The final rule was issued on March 31, 2009 and was published in the *Federal Register* on April 8, 2009 (74 Fed. Reg. 16040).
- Published a NOPR for the lamps energy conservation standard. The rulemaking addresses general service fluorescent lamps and incandescent reflector lamps. The NOPR was issued on March 23, 2009 and was published in the *Federal Register* on April 13, 2009 (74 Fed. Reg. 16920).
- Published a NOPR for the refrigerated bottle or canned beverage vending machines energy conservation standard. The NOPR was issued on May 22, 2009 and was published in the *Federal Register* on May 29, 2009 (74 Fed. Reg. 26020).
- Published a notice of data availability (NODA) for the commercial heating, air-conditioning, and water-heating equipment energy conservation standard. The NODA was issued on May 29, 2009 and was published in the *Federal Register* on June 3, 2009 (74 Fed. Reg. 26596).
- Published a notice of availability of the framework document for the battery chargers and external power supplies energy conservation standard. The notice was issued on May 26, 2009 and was published in the *Federal Register* on June 4, 2009 (74 Fed. Reg. 26816).
- Published a final rule to amend the lamps test procedures for general service incandescent, general service fluorescent, and incandescent reflector lamps. The final rule was issued on June 26, 2009 and was published in the *Federal Register* on July 6, 2009 (74 Fed. Reg. 31829).
- Published a final rule for the small electric motors test procedure. The final rule was issued on June 29, 2009 and was published in the *Federal Register* on July 7, 2009 (74 Fed. Reg. 32059).
- Published a NOPR for the metal halide ballasts test procedure. The NOPR was issued on June 29, 2009 and was published in the *Federal Register* on July 10, 2009 (74 Fed. Reg. 33171).

- Published a final rule for the lamps energy conservation standard. The rulemaking addresses general service fluorescent lamps and incandescent reflector lamps. The final rule was issued on June 26, 2009 and was published in the *Federal Register* on July 14, 2009 (74 Fed. Reg. 34080).
- Published a final rule to amend the energy conservation standard and test procedures for commercial packaged boilers and to adopt a new energy conservation standard for water cooled and evaporatively cooled commercial packaged air conditioners and heat pumps with a cooling capacity at or above 240,000 Btu/h and less than 760,000 Btu/h (ASHRAE equipment). The final rule was issued on July 8, 2009 and was published in the *Federal Register* on July 22, 2009 (74 Fed. Reg. 36312).
- Published a NOPR to amend the furnaces and boilers test procedures regarding standby mode and off mode energy consumption. The NOPR was issued on July 9, 2009 and was published in the *Federal Register* on July 27, 2009 (74 Fed. Reg. 36959).
- Issued a final rule for the refrigerated bottle or canned beverage vending machines energy conservation standard. The final rule was issued on August 5, 2009 and is awaiting publication by the *Federal Register*.

Progress Reports of Appliance Product Teams (By Product)

HEATING TEAM

Heating Products. The final rule establishing energy conservation standards for heating products (residential water heaters, direct heating equipment, and pool heaters) is on schedule for issuance in March 2010. DOE published the notice of availability of the framework document in the *Federal Register* on November 24, 2006 (71 Fed. Reg. 67825). A public meeting to discuss the framework document was held on January 16, 2007 at DOE headquarters in Washington, DC. On January 13, 2009, DOE published a notice of public meeting and availability of the preliminary technical support document in the *Federal Register* (74 Fed. Reg. 1643). The public meeting to discuss the analyses was held on February 9, 2009, at DOE headquarters in Washington, DC. DOE is preparing the NOPR for this rulemaking.

EISA 2007 also requires DOE to develop a standby mode and off mode test procedure for heating products. DOE is reviewing the test procedure NOPR for this rulemaking.

ASHRAE 90.1-2007. On January 9, 2008, ASHRAE's Board of Directors gave final approval to ASHRAE Standard 90.1-2007,⁶ which ASHRAE released on January 10, 2008. Because of the provisions in the consent decree and EISA 2007 discussed above, and as discussed in previous implementation reports, the release of ASHRAE Standard 90.1-2007 required DOE to publish an analysis of the potential energy savings of amended standards within six months of ASHRAE's adoption and either adopt the amended ASHRAE standard as a new national standard within 18 months or establish a more stringent standard within 30 months. After careful evaluation and as explained below, DOE determined to adopt the amended ASHRAE standard.

On July 9, 2008 DOE issued a notice of data availability which was published in the *Federal Register* on July 16, 2008 (73 Fed. Reg. 40770). The NODA discusses the results of DOE's analysis of the energy savings potential of amended energy conservation standards for certain commercial equipment covered by ASHRAE Standard 90.1. In the NODA, DOE first assessed whether the efficiency levels in ASHRAE Standard 90.1-2007 for a given piece of equipment represented an increase in efficiency from the existing Federal energy conservation standards for such equipment. For the equipment where it was determined that ASHRAE increased the efficiency of the equipment, DOE assessed the potential energy savings of a national standard set at the ASHRAE efficiency level or at a more stringent level.

On March 10, 2009 DOE issued a NOPR for certain commercial equipment covered by ASHRAE Standard 90.1-2007 including commercial packaged boilers and water cooled

⁶ This document is officially referred to as American National Standards Institute (ANSI)/ASHRAE/Illuminating Engineering Society of North America (IESNA) Standard 90.1-2007.

and evaporatively cooled commercial packaged air conditioners and heat pumps with a cooling capacity at or above 240,000 Btu/h and less than 760,000 Btu/h, a subset of very large commercial package air conditioning and heating equipment. The NOPR was published in the *Federal Register* on March 20, 2009 (74 Fed. Reg. 12000). DOE held a public meeting to discuss the NOPR on April 7, 2009 at DOE headquarters in Washington, DC. A NODA and request for public comment to accompany this NOPR was issued on May 29, 2009 and was published in the *Federal Register* on June 3, 2009 (74 Fed. Reg. 26596). On July 8, 2009, DOE issued a final rule to amend the energy conservation standard and test procedure for commercial packaged boilers and to adopt a new energy conservation standard for water cooled and evaporatively cooled commercial packaged air conditioners and heat pumps with a cooling capacity at or above 240,000 Btu/h and less than 760,000 Btu/h, which was published in the *Federal Register* on July 22, 2009 (74 Fed. Reg. 36312). This rulemaking is now complete.

Furnaces and Boilers. EISA 2007 requires that DOE prescribe an amended test procedure for residential furnaces and boilers not later than September 2009. This test procedure will address standby mode and off mode energy consumption for these products. DOE issued a NOPR on July 9, 2009 which was published in the *Federal Register* on July 27, 2009 (74 Fed. Reg. 36959). A public meeting to discuss the NOPR is scheduled for August 18, 2009 at DOE headquarters in Washington, DC. Due to the mandatory 75-day comment period associated with test procedures, it is unlikely that the test procedure final rule for measurement of standby mode and off mode energy consumption will be completed by the date specified in EISA 2007. DOE is committed to completing the test procedure final rule as expeditiously as possible and will prioritize it in the context of its other rulemaking obligations.

It is further noted that DOE previously published an energy conservation standard final rule for residential furnaces and boilers in the *Federal Register* on November 19, 2007 (72 Fed. Reg. 65136). As discussed in the February 2008 implementation report, this rulemaking was bound by a consent decree deadline, and DOE had requested additional time to analyze the effect of alternative standards on natural gas prices for the final rule. The Court denied DOE's motion to modify the consent decree and required DOE to issue the rule. Petitioners then challenged this final rule on several grounds. DOE filed a motion for voluntary remand to allow the agency to consider: (1) the application of regional standards in addition to national standards for furnaces and boilers, as authorized by EISA 2007 (enacted December 19, 2007); and (2) the effect of alternative standards on natural gas prices. This motion for voluntary remand was granted on April 21, 2009. DOE will initiate a rulemaking to consider amended energy conservation standards for residential furnaces and boilers and anticipates completion of the final rule by May 2011. DOE is currently investigating the key issues that will be addressed in this rulemaking.

TRANSFORMERS AND MOTORS TEAM

Small Electric Motors. The final rule for small electric motors is on schedule for issuance not later than February 2010. DOE published an announcement of the availability of the energy conservation standard framework document in the *Federal*

Register on August 10, 2007 (72 Fed. Reg. 44990). A public meeting to discuss the framework document was held on September 13, 2007 at DOE headquarters in Washington, DC. DOE issued a NOPM on December 19, 2008 which was published in the *Federal Register* on December 30, 2008 (73 Fed. Reg. 79723). DOE discussed preliminary analytical results from the work performed to date at a public meeting on January 30, 2009 at DOE headquarters in Washington, DC. DOE is working toward publication of the standards NOPR.

In addition to the energy conservation standard activities, DOE also developed a test procedure for small electric motors. The test procedure NOPR was issued on December 11, 2008 and was published in the *Federal Register* on December 22, 2008 (73 Fed. Reg. 78220). DOE discussed issues related to the test procedure rulemaking at a public meeting on January 29, 2009 at DOE headquarters in Washington, DC. DOE issued the test procedure final rule on June 29, 2009, which was published in the *Federal Register* on July 7, 2009 (74 Fed. Reg. 32059).

Electric Motors (1-500 hp). DOE planned to initiate the standards rulemaking for electric motors (1-200 hp) during the first quarter of fiscal year 2008. This rulemaking, covered by the consent decree, was scheduled for issuance of the final rule not later than June 30, 2011. As the framework document was being prepared, EISA 2007 was enacted. EISA 2007 contains prescriptive standards for the same group of motors covered in DOE's rulemaking as well as several other types of motors (42 U.S.C. 6313(b)(2)). Specifically, EISA 2007 prescribed standards for two types of motors with horsepower ratings from 1-200 hp, one type of motor with unspecified horsepower ratings (fire pump motors), and one type of motor (NEMA Design B general purpose motors) with horsepower ratings of more than 200 hp but less than 500 hp. Although the term "fire pump motor" is not defined in the statute, the prescribed standards for fire pump motors point to NEMA MG-1 (2006) Table 12-11, which contains minimum efficiencies for motors rated from 1 to 500 hp. DOE notes that a definition for fire pump motors was proposed in the NOPR for electric motors test procedures published in the *Federal Register* on December 22, 2008 (73 Fed. Reg. 78220). This definition, although not yet finalized, would define "fire pump motor" as rated 500 hp or less. All the prescribed standards were codified in a final rule technical amendment that was issued on March 11, 2009 and published in the *Federal Register* on March 23, 2009 (74 Fed. Reg. 12058).

EPCA requires that DOE publish a final rule no later than 24 months after the effective date of the previous final rule to determine whether to amend the motors standards currently in effect (42 U.S.C. 6313(b)(4)(B)). The effective date of the motors standards prescribed by EISA 2007 is three years after the date of EISA 2007's enactment (*i.e.*, December 19, 2010). Thus, DOE is moving forward with a rulemaking to consider amending the standards for all the motor types included in 42 U.S.C. 6313, with a scheduled completion date of December 19, 2012. Because the current rulemaking will include consideration of motors with horsepower ratings as low as 1 hp, NEMA Design B general purpose motors with horsepower ratings up to 500 hp, and fire pump motors that could be rated up to 500 hp, the shorthand abbreviation for this rulemaking is noted as

“Electric Motors (1-500 hp).” This is the title of the rulemaking in Table 2. DOE is currently evaluating the key issues that will be addressed in this rulemaking.

EISA 2007 also requires that all test procedures be reviewed at least once every seven years, and as such, DOE is developing an amended test procedure for electric motors. DOE initially bundled the test procedure for electric motors (1-500 hp) with the test procedure for small electric motors. The test procedure NOPR was issued on December 11, 2008 and was published in the *Federal Register* on December 22, 2008 (73 Fed. Reg. 78220). In light of comments received at the public meeting and submitted to DOE during the comment period, DOE is reevaluating its course for the 1-500 hp electric motor test procedure final rule. Because the small electric motors test procedure was bound by an upcoming consent decree deadline, DOE split the test procedure rulemaking for 1-500 hp electric motors from the small electric motors test procedure and proceeded to a final rule on the small motors aspect of the rulemaking, which, as discussed above, was issued on June 29, 2009 and was published in the *Federal Register* on July 7, 2009 (74 FR 32059). DOE is currently reviewing a supplemental notice of proposed rulemaking (SNOPR) for the electric motors 1-500 hp test procedure rulemaking.

Distribution Transformers. On September 28, 2007, DOE issued a final rule adopting energy efficiency standards for electric distribution transformers, which was published in the *Federal Register* on October 12, 2007 (72 FR 58190). Petitioners challenged the final rule on several grounds. On July 10, 2009, DOE and the petitioners settled these challenges, agreeing that DOE shall conduct a review of the standards for liquid-immersed and medium-voltage dry-type distribution transformers and publish in the *Federal Register*, no later than October 1, 2011, either: (1) a determination pursuant to EPCA, that standards for these products do not need to be amended, or (2) a notice of proposed rulemaking including any new proposed standards for these products. If DOE determines after the review that amendment of the standards is warranted, DOE will publish in the *Federal Register*, no later than October 1, 2012, a final rule including any amendments to the standards for liquid-immersed and medium-voltage dry-type distribution transformers. Pursuant to the settlement agreement, petitioners dismissed their claims.

LIGHTING TEAM

High-Intensity Discharge Lamps. DOE has begun work on the determination analysis for HID lamps. DOE is currently assessing the market and gathering recent, publicly-available technology and pricing data in preparation for the engineering analysis. The determination notice is scheduled for June 2010 (although DOE anticipates earlier issuance).

Lamps. The final rule regarding energy conservation standards for two categories of lamps (general service fluorescent lamps (GSFL) and incandescent reflector lamps (IRL)) was scheduled for June 2009. DOE published a notice of availability of the framework document on May 31, 2006 (71 Fed. Reg. 30834). Thereafter, DOE began work on an

ANOPR for these products. DOE notes that this rulemaking initially considered a third type of lamp (general service incandescent lamps (GSIL)). However, EISA 2007 prescribed standards for GSILs and eliminated DOE's authority to consider standards for such lamps, thereby significantly altering the scope of coverage for the standards rulemaking.

In parallel to the energy conservation standard, DOE was also progressing on a test procedure for GSFLs, IRLs, and GSILs. Following enactment of EISA 2007, substantial revisions were thus required to the analysis and to both the standards ANOPR and test procedure NOPR *Federal Register* notices (both of which had been nearly complete at the time of the Act's passage). DOE made the necessary adjustments to be consistent with EISA 2007 and issued the energy conservation standard ANOPR and test procedure NOPR on February 21, 2008. The notices appeared in the *Federal Register* on March 13, 2008 (73 Fed. Reg. 13620 and 73 Fed. Reg. 13465).

The lamps NOPR was initially issued on January 12, 2009, as reported in the previous implementation update. While awaiting publication, a new Administration took office, and a memorandum issued by the Assistant to the President and Chief of Staff on January 20, 2009 resulted in further regulatory review of the NOPR within the Department. The energy conservation standard NOPR was subsequently re-issued on March 23, 2009 and was published in the *Federal Register* on April 13, 2009 (74 Fed. Reg. 16920). DOE discussed the issues related to the lamps standards NOPR at a public meeting held on February 3, 2009 at DOE headquarters in Washington, DC. DOE issued the energy conservation standard final rule on June 26, 2009 which was published in the *Federal Register* on July 14, 2009 (74 Fed. Reg. 34080).

During the lamps rulemaking, DOE considered its options with respect to certain types of IRLs, namely certain Elliptical Reflector (ER) and Bulge Reflector (BR) lamps. These lamp types were not included in the lamps rulemaking because of exemptions in EPCA. Because these exempted lamps are very common (approximately 40 percent of the market), the lamp exemption was highly controversial in the lamps rulemaking. DOE did not wish to delay the lamps final rule (and the accompanying energy savings to the Nation) for the sole reason of considering this subset of ER, BR, and small-diameter lamps. Instead DOE decided to proceed with setting energy conservation standards for the non-exempt lamps and to consider commencing a separate rulemaking for ER, BR, and small-diameter lamps. If it is determined that DOE has the authority to conduct such a rulemaking, DOE will strive to complete a final rule for these products in 2011.

For the lamps test procedure, DOE issued the final rule on June 26, 2009 and published the final rule in the *Federal Register* on July 6, 2009 (74 Fed. Reg. 31829).

Five Exempted Lamp Types. DOE published a notice of data availability (NODA) announcing the completion of DOE's model of future lamp sales for five exempted lamp types as required by section 321 of EISA (42 U.S.C. 6295(l)(4)). The notice of data availability was issued on December 18, 2008 and was published in the *Federal Register*

on December 24, 2008 (73 Fed. Reg. 79072). The notice announced the availability of historical shipment data for each lamp type and a model forecasting future unit sales. Beginning in calendar year 2010, DOE will track actual United States unit sales data for each of the five lamp types and compare it to this model. When the annual sales rate for any of the five lamp types exceeds the modeled levels by at least 100 percent, DOE will initiate an accelerated rulemaking to establish an energy conservation standard for that lamp type.

Fluorescent Lamp Ballasts. The final rule for fluorescent lamp ballasts energy conservation standards is on schedule for issuance not later than June 2011. DOE completed the framework document and published a NODA in the *Federal Register* on January 22, 2008 (73 Fed. Reg. 3653). DOE held a framework public meeting at its Washington D.C. headquarters on February 6, 2008. DOE is conducting the preliminary analyses at this time.

In addition to the energy conservation standard, DOE is developing two test procedures for fluorescent lamp ballasts. EPCA, as amended by section 310 of EISA 2007, directed DOE to develop a test procedure for fluorescent lamp ballasts that accounts for standby mode and off mode energy consumption by March 31, 2009 (42 U.S.C. 6295(gg)(2)(A) and (B)(ii)). In addition, DOE is developing an active mode test procedure for fluorescent lamp ballasts in support of the energy conservation standard.

DOE issued the standby mode and off mode test procedure NOPR for fluorescent lamp ballasts on January 8, 2009. The notice was published in the *Federal Register* on January 21, 2009 (74 Fed. Reg. 3450). DOE discussed issues related to the fluorescent lamp ballast test procedure NOPR at a public meeting on February 2, 2009 at DOE headquarters in Washington, DC. Because the NOPR comment period ended on April 6, 2009, and DOE could not issue a final rule until after consideration of comments received during the comment period, the final rule was not issued before the date specified in EISA 2007. DOE is committed to completing this test procedure as expeditiously as possible and will prioritize it in the context of its other rulemaking obligations. DOE is currently developing the final rule for the standby mode and off mode test procedure and the NOPR for the active mode test procedure.

Metal Halide Lamp Ballasts. Section 324 of EISA 2007 set efficiency standards for metal halide lamp fixtures that became effective January 1, 2009 (42 U.S.C. 6295(hh)(1)(C)). The statute further amended EPCA by requiring that test procedures for metal halide lamp ballasts be based on ANSI Standard C82.6-2005 (42 U.S.C. 6293(b)(18)). DOE issued a NOPR to establish a test procedure for metal halide lamp ballasts (including consideration of standby mode and off mode energy consumption) on December 4, 2008. DOE issued a NOPM on December 11, 2008, which was published in the *Federal Register* on December 17, 2008 (73 Fed. Reg. 76569) and held the public meeting at DOE headquarters in Washington, DC on December 19, 2008 to discuss preliminary results from the test procedure rulemaking. Following review by the new Administration, the test procedure NOPR was re-issued on June 29, 2009 and was

published in the *Federal Register* on July 10, 2009 (74 Fed. Reg. 33171). DOE is performing the analyses for the final rule.

Metal Halide Lamp Fixtures. Section 324 of EISA 2007 (42 U.S.C. 6295(hh)(2)) requires DOE to amend energy conservation standards for metal halide lamp fixtures by January 1, 2012. DOE is currently preparing the framework document for this rulemaking.

HOME APPLIANCE TEAM

Home Appliances, Group 1. The final rule regarding energy conservation standards for three home appliances (ranges and ovens, microwave ovens, and commercial clothes washers) was scheduled to be published no later than March 2009. Originally, this rule also included dishwashers and dehumidifiers. All of these products were included in the ANOPR that was published in the *Federal Register* on November 15, 2007 (72 Fed. Reg. 64432). This rulemaking was subsequently affected by EISA 2007, which prescribed standards for both dehumidifiers and dishwashers. The prescribed standards for dehumidifiers and dishwashers were codified in a separate final rule technical amendment that was issued on March 11, 2009 and published in the *Federal Register* on March 23, 2009 (74 Fed. Reg. 12058). The home appliances energy conservation standards rulemaking continued with the remaining products, and on September 29, 2008, DOE issued a NOPR for gas and electric ranges and ovens, microwave ovens, and commercial clothes washers, which was published in the *Federal Register* on October 17, 2008 (73 Fed. Reg. 62034).

Related to the standards rulemaking above, DOE simultaneously began developing a test procedure for residential microwave ovens to address standby mode and off mode energy consumption. EISA 2007 requires that a revised test procedure for microwave ovens that includes standby and off mode energy consumption shall be completed no later than March 2011. DOE desired to include standby mode and off mode energy consumption in this revision of the test procedure ahead of the EISA 2007 deadline so that it could be completed in tandem with an energy conservation standard for microwave ovens that would also account for standby mode and off mode energy consumption. DOE published the NOPR for the microwave oven test procedure regarding standby mode and off mode energy consumption in the *Federal Register* on October 17, 2008 (73 Fed. Reg. 62134). Public meetings were held at DOE headquarters in Washington, DC to discuss the proposed energy conservation standard on November 13, 2008 and the proposed test procedure on November 14, 2008.

Comments received at the public meeting and submitted in response to the energy conservation standard NOPR suggested that de-bundling certain aspects of this rulemaking would be beneficial, as explained below. For commercial clothes washers, commenters alleged certain data problems affecting DOE's rulemaking analyses. DOE's preliminary assessment suggested that these concerns were valid, thereby necessitating additional, supplemental rulemaking analyses. For microwave ovens, commenters urged

DOE to consider an upcoming version of the industry consensus test procedure for measuring microwave oven standby mode and off mode energy consumption (IEC 62301). Commenters indicated that this later version contains significant modifications and improvements as compared to the current draft, which many commenters believed to be inadequate. DOE agreed that it would be preferable to consider the international standard.

In light of the above, DOE de-bundled the commercial clothes washers energy conservation standard from the current rulemaking and is deferring consideration of microwave oven energy conservation standards for standby mode and off mode until the revised industry standard becomes available for consideration. Therefore, the next rulemaking phase for both the commercial clothes washer energy conservation standard and the microwave oven test procedure is likely to be an SNO PR. DOE ultimately moved forward with a final rule addressing energy conservation standards for kitchen ranges and ovens and microwaves in active mode only. DOE issued the final rule for energy conservation standards for kitchen ranges and ovens and microwave ovens on March 31, 2009, thereby meeting the deadline set forth in the consent decree. The final rule was published in the *Federal Register* on April 8, 2009 (74 Fed. Reg. 16040).

For commercial clothes washers, DOE will work toward publication of a final rule for energy conservation standards by January 1, 2010, the statutory deadline set by EPACT 2005. DOE is currently reviewing a draft SNO PR.

For the microwave ovens test procedure, DOE will work toward publication of a final rule by March 31, 2011, the statutory deadline set by EISA 2007. Although information on the IEC website led DOE to believe that an updated version of IEC 62301 would be complete by July 31, 2009, the IEC test procedure remains unfinalized. Upon further inquiry, DOE learned that IEC does not expect finalization until the middle of 2010. Therefore, in order to preserve the schedule for the microwave ovens test procedure, DOE may move forward with the version of the test procedure proposed in the October 17, 2008 NO PR. In conjunction with the test procedure, DOE is simultaneously conducting a review of the energy conservation standards for microwave ovens in standby mode and off mode. As with the test procedure, the rulemaking for energy conservation standards is scheduled to be completed no later than March 31, 2011.

DOE is initiating a test procedure regarding standby mode and off mode for dishwashers, dehumidifiers, and ranges and ovens (electric and gas). DOE is beginning the analysis necessary for a NO PR. The final rule is scheduled for completion by March 2011.

Home Appliances, Group 2. The energy conservation standard rulemaking for clothes dryers and room air conditioners is underway and scheduled to be completed in June 2011. DOE published a notice of availability for the framework document in the *Federal Register* on October 9, 2007 (72 Fed. Reg. 57254). DOE held the framework document public meeting in Washington, DC, on October 24, 2007. DOE is conducting the preliminary analyses for this rulemaking.

Pursuant to section 310 of EISA 2007, revisions to the test procedures for clothes dryers and room air conditioners to account for standby and off mode energy consumption were required by March 31, 2009. DOE published the NOPR to amend these test procedures on December 9, 2008 (73 Fed. Reg. 74639). DOE held a public meeting to discuss the issues raised in the test procedures NOPR at DOE headquarters in Washington, DC, on December 17, 2008.

As discussed above in the Home Appliances, Group 1, section, DOE anticipated that the IEC would finalize a revision to an international test procedure standard (IEC 62301) that would have included procedures for measuring standby mode and off mode energy consumption in clothes dryers and room air conditioners. DOE received public comments on the test procedure NOPR encouraging DOE to consider this newest version of IEC 62301 which was scheduled to be finalized by IEC no later than July 31, 2009. DOE determined it necessary to delay publication of its test procedure final rule to consider this version of IEC 62301, and as a result, DOE did not meet the deadline of March 31, 2009. DOE has since learned that IEC does not expect to publish a revised version of IEC 62301 until the middle of 2010. Therefore, to complete the test procedure in a timely manner and ensure that it can be used for the upcoming energy conservation standard, DOE plans to move forward with the version of the test procedure proposed in the December 9, 2008 NOPR. DOE intends to proceed to a final rule for the standby mode and off mode test procedures as expeditiously as possible.

Additionally, DOE has initiated an active mode test procedure for clothes dryers and room air conditioners in order to support the energy conservation standard rulemaking. DOE is performing the analysis necessary for the NOPR.

Residential Clothes Washers. DOE is undertaking two rulemakings to address the requirements pertaining to residential clothes washers in EISA 2007. Specifically, EISA 2007 requires both an energy conservation standard rulemaking (scheduled for completion in December 2011), as well as a test procedure rulemaking to address standby mode and off mode energy consumption (originally scheduled for completion in June 2009). DOE is reviewing the framework document for the energy conservation standard rulemaking.

As discussed above, DOE anticipated an international test procedure standard (IEC 62301) revision that would have included procedures for measuring standby mode and off mode energy consumption in residential clothes washers. DOE determined it necessary to delay publication of the residential clothes washer test procedure NOPR in order to consider the updated, international consensus test procedure, which was expected to be finalized July 31, 2009. As a result, DOE did not meet its original deadline of June 30, 2009. DOE has since learned that IEC does not expect to publish a revised version of IEC 62301 until the middle of 2010. In order to complete the test procedure in a timely manner, DOE is moving forward with work on the residential clothes washer standby mode and off mode test procedure NOPR. DOE intends to proceed to a final rule for the standby mode and off mode test procedures as expeditiously as possible.

Residential Refrigerators. Under section 311 of EISA 2007, DOE is scheduled to issue energy conservation standards for residential refrigerators by December 31, 2010. DOE initiated this rulemaking by publishing a notice of availability of the framework document. The framework document was issued on September 12, 2008 and published in the *Federal Register* on September 18, 2008 (73 Fed. Reg. 54089). A public meeting to discuss the rulemaking was held at DOE headquarters in Washington, DC, on September 29, 2008. DOE is currently reviewing the preliminary analyses for this energy conservation standard.

DOE also initiated a rulemaking to amend the test procedures for residential refrigerators. This test procedure was initiated in support of the residential refrigerators energy conservation standard required by EISA 2007, and it will also address standby mode and off mode energy consumption. The revised test procedure will allow DOE to include standby mode and off mode energy use into the energy conservation standard, as required by section 310 of EISA 2007. DOE is reviewing the draft NOPR for this test procedure.

SPACE COOLING TEAM

Residential Central Air Conditioners and Heat Pumps. The final rule regarding energy conservation standards for residential central air conditioners and heat pumps is scheduled for issuance no later than June 2011. DOE published a notice of availability of the framework document in the *Federal Register* on June 6, 2008 (73 Fed. Reg. 32243) and held the framework document public meeting at DOE headquarters in Washington, DC on June 12, 2008. DOE is currently preparing the preliminary analyses for this energy conservation standard.

DOE also initiated a test procedure for residential central air conditioners and heat pumps in support of the energy conservation standard and is working on the test procedure NOPR for this product. The test procedure will address standby mode and off mode energy consumption in order to meet the requirement of section 310 of EISA 2007.

COMMERCIAL REFRIGERATION TEAM

Beverage Vending Machines. The final rule regarding energy conservation standards for beverage vending machines was scheduled to be issued by August 2009. DOE published a notice of availability of the framework document for these products in the *Federal Register* on June 28, 2006 (71 Fed. Reg. 36715). A public meeting on the framework document was held at DOE headquarters in Washington, DC on July 11, 2006. The ANOPR for beverage vending machine standards was issued on June 9, 2008 and published in the *Federal Register* on June 16, 2008 (73 Fed. Reg. 34094). A public meeting to discuss the ANOPR was held June 26, 2008. DOE issued a NOPR on May 22, 2009 which was published in the *Federal Register* on May 29, 2009 (74 Fed. Reg. 26020). DOE held a public meeting to discuss the NOPR on June 17, 2009 at DOE

headquarters in DC. DOE issued a final rule on August 5, 2009, which is awaiting publication by the *Federal Register*. This rulemaking will be complete upon publication.

Walk-In Coolers and Freezers. EISA 2007 requires DOE to develop an energy conservation standard for walk-in coolers and freezers (42 U.S.C. 6313(f)(4)) which is scheduled for completion no later than January 2012. The notice of availability of the framework document was published in the *Federal Register* on January 6, 2009 (74 Fed. Reg. 411). DOE held the Framework public meeting at DOE headquarters in Washington, DC, on February 4, 2009. DOE is currently developing the preliminary analyses for energy conservation standards rulemaking.

EISA 2007 also requires DOE to establish a test procedure for walk-in coolers and freezers by January 2010. DOE is currently preparing the test procedure NOPR.

BATTERY CHARGERS AND EXTERNAL POWER SUPPLIES TEAM

Battery Chargers and External Power Supplies. As discussed in previous implementation reports, EISA 2007 removed battery chargers from the determination analysis that was already underway (leaving only external power supplies) and reduced the schedule for completing the determination to two years after the date of enactment (*i.e.*, by December 19, 2009). DOE is currently reviewing the draft Notice of Proposed Determination (NOPD).

Also pursuant to EISA 2007, DOE is bundling the two requirements to amend standards for Class A external power supplies (42 U.S.C. 6295(u)(3)(D)) and to prescribe energy conservation standards for battery chargers (42 U.S.C. 6295(u)(1)(E)(i)(II)) into a single rulemaking scheduled for completion by July 1, 2011. DOE issued a notice of availability of the framework document for this rulemaking on May 26, 2009, which was published in the *Federal Register* on June 4, 2009 (74 Fed. Reg. 26816). A public meeting to discuss the framework document was held on July 16, 2009 at DOE headquarters in Washington, DC. DOE is analyzing stakeholder comments received on the framework document and is preparing to begin the pre-NOPR analyses.

EISA 2007 also requires DOE to complete a test procedure for battery chargers and external power supplies which includes standby mode and off mode energy consumption by December 31, 2008. (42 U.S.C. 6295(gg)(2)(A)). DOE published the NOPR for the battery chargers and external power supplies test procedure on August 15, 2008 (73 Fed. Reg. 48054). The public meeting to discuss the test procedure NOPR was held on September 12, 2008, at DOE headquarters in Washington, DC, and the comment period closed on October 29, 2008. Although the final rule was not issued by the December 31, 2008, date specified in EPCA (as amended by EISA 2007), the final rule was issued on March 11, 2009, and was published in the *Federal Register* on March 27, 2009 (74 Fed. Reg. 13318). This rulemaking for the standby mode and off mode test procedures for battery chargers and external power supplies is now complete.

In addition, DOE is currently working on the NOPR for an active mode test procedure for battery chargers. This test procedure was initiated in support of the energy conservation standard for battery chargers. DOE is processing comments given at the July 16, 2009, public meeting that are relevant to the test procedure.