

Implementation Report:  
Energy Conservation Standards Activities

Submitted Pursuant to Section 141 of the  
Energy Policy Act of 2005

U.S. Department of Energy

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## List of Acronyms

DOE – U.S. Department of Energy  
EPACT 2005 – Energy Policy Act of 2005  
NOPR – 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 Department of Energy's (DOE or Department) failure to comply with statutory deadlines for new or amended energy conservation standards. Section 141 requires both an initial report and semi-annual implementation reports. This is the first semi-annual implementation report.

The Department submitted the initial report, due February 8, 2006, in a timely fashion. Congress was briefed on the report followed by release of the full report to both Congress and the public on January 31, 2006. In the initial report, the Department documented the history of the Appliance Standards Program, provided a description of the rulemaking process and detailed the statutory requirements that the program needs to fulfill. This report explained the historical reasons for the Department's failure to meet statutory deadlines and described current and planned productivity enhancements that the Department is implementing. Finally, the initial report set an aggressive rulemaking schedule, addressing both backlog rulemakings and the new requirements of EPACT 2005.

Stakeholders generally supported the aggressive rulemaking schedule in the initial report. Industry trade organizations, as well as energy efficiency advocacy organizations, issued press releases to offer congratulations and praise to the Department for its schedule. Some energy efficiency advocacy organizations noted the absence of certain high-potential-energy-saving products in the Department's schedule, which the Department had not included in its schedule because those products have no unfulfilled statutory requirements (i.e., those products were not in the backlog).

During the six months since the initial report, DOE has been diligently implementing the productivity enhancements and improved document review and clearance process described in the initial report. The productivity enhancements, including bundling and valley-filling, are enabling the Department to meet its aggressive schedule. Bundling is enabling the Department to address several products simultaneously, within a single rulemaking, in cases where the Department identified logical product groupings. The Department's use of valley-filling management principles is maximizing the use of resources, avoiding any periods where a given analysis team is not fully utilized.

In addition to the team-level productivity enhancements, the Department is implementing its improved document review and clearance process. The Department has held regular meetings of an intra-agency Crosscutting Review Team that includes the Appliance Standards Program, the Office of General Counsel, and the Office of Policy and International Affairs. The Crosscutting Review Team has become the cornerstone of the improved document review and clearance process. The team addresses critical legal and policy issues that are identified by the program's analysis teams, providing those teams with improved clarity and direction on critical issues early in the rulemaking and analysis process. For example, the Crosscutting Review Team is meeting several times to

comprehensively discuss stakeholder comments on the recent framework documents so that the analysis teams can more effectively incorporate the comments into the analytical plans for each rulemaking. The Department is now establishing an intra-agency agreement about approaches to address key stakeholder issues earlier in the rulemaking process, which in turn clarifies the scope, depth, and focus of analyses for the rulemaking teams. The Department expects that the Crosscutting Review Team meetings will ultimately reduce delays during the review and clearance process for proposed and final rules. These regular meetings of the Crosscutting Review Team have already enhanced the clarity and productivity of the framework public meetings by producing guidance for the rulemaking teams that helped them to effectively solicit stakeholder feedback on key issues.

The aforementioned productivity enhancements and intra-agency measures are enabling the Department to meet its aggressive schedule. Since the initial report, the Department has published a test procedure final rule for distribution transformers and published a departmental determination to initiate a standards rulemaking covering small electric motors.

In addition, the Department has also published notices of proposed rulemaking (NOPR) for both a single-product test procedure (residential central air conditioners and heat pumps) and multiple test procedures to be adopted en masse. The NOPR for the test procedures to be adopted en masse includes ceiling fans; ceiling fan light kits; dehumidifiers; medium base compact fluorescent lamps; battery chargers; external power supplies; torchieres; unit heaters; automatic commercial ice makers; commercial prerinse spray valves; illuminated exit signs; traffic signal modules and pedestrian modules; refrigerated bottled or canned beverage vending machines; very large commercial package air-conditioning and heating equipment; commercial refrigerators, freezers, and refrigerator-freezers; ice-cream freezers; commercial refrigerators, freezers, and refrigerator-freezers with a self-contained condensing unit and without doors; and commercial refrigerators, freezers, and refrigerator-freezers with a remote condensing unit.

Also, since publication of the initial report to Congress, DOE has published four framework documents and held framework public meetings for four standards rulemakings, affecting nine products. These nine products are dishwashers, ranges and ovens, dehumidifiers, commercial clothes washers, incandescent reflector lamps, fluorescent lamps, incandescent general service lamps, beverage vending machines, and a complex set of commercial refrigeration products (counted as one product here). Thus, the Department has met all obligations as scheduled in the initial report to Congress, and the Department remains committed to complying with all future deadlines in the schedule.

As indicated in the initial report to Congress, the Administration strongly supports the Appliance Standards Program. The Administration's National Energy Policy explicitly supports the Appliance Standards Program, and includes recommendations that the Department set higher standards for existing covered products where technologically

feasible and economically justified, and that the program should be expanded to include additional appliances where technologically feasible and economically justified.<sup>1</sup> The Department is committed to effective administration and implementation of the program.

The next section of this report provides a copy of the rulemaking schedule provided in the initial report to Congress, along with a detailed description of activities and progress to date. The Department notes that separate court proceedings (*State of New York, et al. v. Bodman* and *NRDC, Inc. et al. v. Bodman*) could result in changes to the Department's schedule.

## 1 Multi-Year Schedule and Implementation Update

### 1.1 Multi-Year Schedule

Table 1 presents the multi-year schedule which DOE committed to in its initial report to Congress. This schedule results in the issuance of one standard for each of 18 products with one or more backlogged standards. Additionally, the schedule addresses the first cycle of standards that DOE must develop to comply with EPACT 2005 (for some products, EPACT 2005 requires the Department to develop multiple standards over time). Also addressed are determination analyses for small electric motors, high-intensity discharge lamps, and battery chargers and external power supplies; the distribution transformer test procedure; the residential central air-conditioning test procedure; two test procedures that EPACT 2005 requires DOE to develop; and the test procedure rulemaking which is being conducted en masse in response to EPACT 2005.

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<sup>1</sup> National Energy Policy: Report of the National Energy Policy Development Group, Chapter 4, May 2001.

**Table 1 Multi-Year Schedule to Issue One Standard for Each Product in Backlog, and to Develop One Standard for Each Product per EPACT 2005**

<b>Rulemaking Team</b>	<b>Rule Type</b>	<b>Product(s)</b>	<b>EPACT 2005, Backlog, Other</b>	<b>Approx. Rule Initiation Date</b>	<b>Final Action Date</b>
Heating Team	Standards	<ul style="list-style-type: none"> <li>Furnaces and Boilers (Residential) [Backlog Cycle 1 including Mobile Home Furnaces, Backlog Cycle 2 for Small Furnaces]</li> </ul>	Backlog	NA	September 2007
		<ul style="list-style-type: none"> <li>Water Heaters (Residential) [Backlog Cycle 2]</li> <li>Direct Heating Equipment [Backlog Cycle 1]</li> <li>Pool Heaters [Backlog Cycle 1]</li> </ul>	Backlog Backlog Backlog	FY2006, Q4	March 2010
Transformers and Motors Team	Determination Analysis	<ul style="list-style-type: none"> <li>Small Electric Motors</li> </ul>	Backlog	NA	June 2006
	Standards	<ul style="list-style-type: none"> <li>Distribution Transformers, MV Dry-Type and Liquid-Immersed</li> </ul>	Backlog	NA	September 2007
		<ul style="list-style-type: none"> <li>Electric Motors, 1-200 HP [Backlog Cycle 1]</li> </ul>	Backlog	FY2008, Q1	June 2011
	Test Procedure	<ul style="list-style-type: none"> <li>Distribution Transformers</li> </ul>	Backlog	NA	April 2006
Lighting Team	Determination Analysis	<ul style="list-style-type: none"> <li>High-Intensity Discharge Lamps</li> </ul>	Backlog	NA	June 2010
	Standards	<ul style="list-style-type: none"> <li>Ceiling Fan Light Kits (other than those with prescribed standards)</li> </ul>	EPACT 2005	NA	January 2007
		<ul style="list-style-type: none"> <li>Incandescent Reflector Lamps [Backlog Cycle 1]</li> <li>Fluorescent Lamps [Backlog Cycle 1]</li> <li>Incandescent General Service Lamps [Backlog Cycle 1]</li> </ul>	Backlog Backlog Backlog	FY2006, Q3	June 2009
		<ul style="list-style-type: none"> <li>Fluorescent Lamp Ballasts [Backlog Cycle 2]</li> </ul>	Backlog	FY2008, Q1	June 2011
Home Appliance Team	Standards	<ul style="list-style-type: none"> <li>Dishwashers (Residential) [Backlog Cycle 2]</li> <li>Ranges and Ovens (Electric and Gas) and Microwave Ovens [Backlog Cycle 1 for Gas, Backlog Cycle 2 for Electric]</li> <li>Dehumidifiers (Residential) [Revision]</li> <li>Clothes Washers (Commercial) [Revision 1]</li> </ul>	Backlog Backlog EPACT 2005 EPACT 2005	FY2006, Q2	March 2009
		<ul style="list-style-type: none"> <li>Clothes Dryers (Residential) [Backlog Cycle 2]</li> <li>Room Air Conditioners [Backlog Cycle 2]</li> </ul>	Backlog Backlog	FY2008, Q1	June 2011
Space Cooling Team	Standards	<ul style="list-style-type: none"> <li>Packaged Terminal Air Conditioners and Heat Pumps</li> </ul>	Backlog	FY2006, Q4	September 2008
		<ul style="list-style-type: none"> <li>Central Air Conditioners and Heat Pumps (Residential) [Backlog Cycle 2]</li> </ul>	Backlog	FY2008, Q2	June 2011
	Test Procedure	<ul style="list-style-type: none"> <li>Central Air Conditioners and Heat Pumps (Residential)</li> </ul>	Other	NA	September 2007

<b>Rulemaking Team</b>	<b>Rule Type</b>	<b>Product(s)</b>	<b>EPACT 2005, Backlog, Other</b>	<b>Approx. Rule Initiation Date</b>	<b>Final Action Date</b>
Commercial Refrigeration Team	Standards	• Refrigerated Bottle or Canned Beverage Vending Machines	EPACT 2005	FY2006, Q3	August 2009
		• Ice-Cream Freezers, Self-Contained Commercial Refrigerators, Freezers, and Refrigerator-Freezers without Doors, and Remote-Condensing Commercial Refrigerators, Freezers and Refrigerator-Freezers (initial)	EPACT 2005	FY2006, Q2	January 2009
		• Automatic Ice Makers (Commercial) [Revision 1]	EPACT 2005	FY2011, Q3	January 2015
	Test Procedure	• Ice-Cream Freezers, Self-Contained Commercial Refrigerators, Freezers, and Refrigerator-Freezers without Doors, and Remote-Condensing Commercial Refrigerators, Freezers and Refrigerator-Freezers	EPACT 2005	NA	January 2008
Battery Chargers and External Power Supplies Team	Determination Analysis	• Battery Chargers and External Power Supplies	EPACT 2005	NA	August 2008
	Standards	• Battery Chargers and External Power Supplies (Contingent on Determination)	EPACT 2005	FY2008, Q4	August 2011
	Test Procedure	• Battery Chargers and External Power Supplies	EPACT 2005	NA	February 2007
Other EPACT 2005	Test Procedure	• 11 Test Procedures Prescribed by EPACT 2005	EPACT 2005	NA	November 2006



## 1.2 Implementation Update

During the six months since the initial report, DOE has been working very hard to meet the commitments in the schedule presented to Congress. While continuing rulemakings that were already in progress, the Department has also initiated rulemakings that address products in the backlog and others that implement the requirements in EPACK 2005. Since publication of the initial report, DOE has:

- Issued test procedures for distribution transformers: published in Federal Register on April 27, 2006;
- Initiated home appliances rulemaking: published framework document on March 15, 2006, and held public meeting on April 27, 2006;
- Initiated commercial refrigeration rulemaking: published framework document on April 12, 2006, and held public meeting on May 16, 2006;
- Initiated lamp rulemaking: published framework document on May 31, 2006, and held public meeting on June 15, 2006;
- Issued small motors determination: signed by Assistant Secretary on June 27, 2006;
- Initiated beverage vending machine rulemaking: published framework document on June 5, 2006, and held public meeting on July 11, 2006;
- Published proposed test procedures for central air conditioners and heat pumps (NOPR): published in Federal Register on July 20, 2006; and
- Published proposed test procedures to be adopted en masse (NOPR): published in Federal Register on July 25, 2006.

The paragraphs below describe the progress of each rulemaking team.

### Heating Team

Consistent with the published schedule, the team expects to publish the furnaces and boilers' notice of proposed rulemaking not later than September 2006, followed by a final rule not later than September 2007.

The team is on track to initiate the heating products rulemaking (water heaters, direct heating equipment, and pool heaters) by the end of fiscal year 2006. To initiate the rulemaking, DOE will publish a framework document and then hold a stakeholder public meeting.

### Transformers and Motors Team

**The small electric motors determination was approved and signed on June 27, 2006.** The Department has determined, based on the best information currently available, that energy conservation standards for certain small electric motors are technologically feasible and economically justified, and would result in significant energy savings. This

determination initiates the process of establishing, by notice and comment rulemaking, test procedures and energy conservation standards for this equipment.

The team is on track to publish the distribution transformers' NOPR not later than September 2006, followed by a final rule not later than September 2007.

**The Department published the test procedure final rule for distribution transformers on April 27, 2006.<sup>2</sup>**

Lighting Team

**On June 15, 2006, the Department held its stakeholder framework public meeting, to initiate the rulemaking for three broad categories of lamps (incandescent reflector lamps, fluorescent lamps, and incandescent general service lamps).** The Department and stakeholders discussed the framework document at the public meeting, and the Department received written comments by the end of the comment period of June 29, 2006. The program has reviewed the comments and is incorporating them into its analytical plan for the rulemaking. While this rulemaking covers a large number of product classes and also a significant number of subtle issues regarding definitions and product coverage scope, the Department foresees no delay in meeting the June 2009 final rule date.

For ceiling fan light kits (other than those with standards prescribed by EPACT 2005), the Department recognizes that EPACT 2005 did not allow DOE sufficient time to complete a rulemaking for this niche set of products. However, the Department also realizes that EPACT 2005 also offered "default" standards to take effect if DOE does not issue other standards by January 1, 2007. Therefore, DOE plans to codify the default standards on January 2, 2007, through a technical amendment in the Federal Register.

Home Appliance Team

**On April 27, 2006, the Department held its stakeholder framework public meeting, to initiate the rulemaking for four home appliances (dishwashers, ranges and ovens, dehumidifiers, and commercial clothes washers).** The Department and stakeholders discussed the framework document at the public meeting, and the Department received written comments by the end of the comment period on May 11, 2006. The program has reviewed the comments and is incorporating them into its analytical plan for the rulemaking. The Department foresees no delays in meeting the March 2009 final rule date.

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<sup>2</sup> The National Electric Manufacturers Association requested a technical correction to an equation in the test procedure subsequent to final rule publication. The Appliance Standards Program drafted this technical correction and it is currently being reviewed within the Department.

### Space Cooling Team

**The Department published a NOPR for the residential central air conditioner and heat pump test procedure on July 20, 2006, and is on track for a final rule in September 2007.**

The team is on track to initiate the packaged terminal air conditioner and heat pump rule by the end of fiscal year 2006. To initiate the rulemaking, DOE will publish a framework document and then hold a stakeholder public meeting.

### Commercial Refrigeration Team

**On May 16, 2006, the Department held its stakeholder framework public meeting to initiate the rulemaking for commercial refrigeration products.** The Department and stakeholders discussed the framework document at the public meeting, and the Department received written comments by the end of the comment period on May 30, 2006. The program has reviewed the comments and is incorporating them into its analytical plan for the rulemaking. The Department foresees no delays in meeting the January 2009 final rule date.

**On July 11, 2006, the Department held its stakeholder framework public meeting to initiate the rulemaking for beverage vending machines.** The Department and stakeholders discussed the framework document at the public meeting, and the Department received written comments by the end of the comment period on July 27, 2006. The program is reviewing the comments and will incorporate them into its analytical plan for the rulemaking. The Department foresees no delays in meeting the August 2009 final rule date.

**The Department published the NOPR for the commercial refrigeration test procedures on July 25, 2006.** In the initial report to Congress, the Department scheduled a test procedure final rule, affecting multiple commercial refrigeration products, for January 2008. The Department now plans to adopt these test procedures as part of the larger test procedure rule to be adopted en masse in November 2006 (see below for an update of the test procedures to be adopted en masse). Therefore, the commercial refrigeration test procedure rulemaking is currently ahead of schedule.

### Battery Chargers and External Power Supplies Team

The team is on track to publish a determination notice for battery chargers and external power supplies by the scheduled date of August 2008. If the determination is positive, the Department would then proceed with a standards rulemaking, issuing a final rule on the scheduled date of August 2011.

**The Department published the NOPR for the battery chargers and external power supplies test procedures on July 25, 2006.** Similar to the commercial refrigeration test procedures discussed above, the Department plans to adopt the test procedures for battery

chargers and external power supplies as part of the larger test procedure rule to be adopted en masse in November 2006 (see below for an update of the test procedures to be adopted en masse). Therefore, the battery chargers and external power supplies test procedure rulemaking is currently ahead of schedule.

#### Test Procedures in Fulfillment of EPACT 05

**The Department published a NOPR for the rulemaking to adopt test procedures en masse on July 25, 2006.** The NOPR addresses the products listed below. While most of the test procedures included in this NOPR are based on the test procedures referenced in EPACT 2005, in order to ensure workability for industry, the Department has proposed several technical modifications to clarify or update these test procedures. Despite the appropriate test procedure references in EPACT 2005, and despite DOE's extensive efforts to clarify and update those test procedures, DOE still anticipates that stakeholders will raise technical issues concerning some of the test procedures in response to the NOPR publication. The Department plans to hold a public meeting in September 2006 to discuss any issues that stakeholders may raise in response to the NOPR. Since the final rule is aggressively scheduled for November 2006, DOE might have to separate products for which stakeholders raise significant issues into another rulemaking (or multiple rulemakings), so as not to slow down the final rule publication for the test procedures to be adopted en masse.

#### **Products Addressed in the Notice of Proposed Rulemaking to Adopt Test Procedures En Masse - 71 FR 42178 - July 25, 2006**

- Ceiling fans
- Ceiling fan light kits
- Dehumidifiers
- Medium base compact fluorescent lamps
- Battery chargers
- External power supplies
- Torchieres
- Unit heaters
- Automatic commercial ice makers
- Commercial prerinse spray valves
- Illuminated exit signs
- Traffic signal modules and pedestrian modules
- Refrigerated bottled or canned beverage vending machines
- Very large commercial package air-conditioning and heating equipment
- Commercial refrigerators, freezers, and refrigerator-freezers
- Ice-cream freezers; commercial refrigerators, freezers, and refrigerator-freezers with a self-contained condensing unit and without doors; and commercial refrigerators, freezers, and refrigerator-freezers with a remote condensing unit