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# **ENERGY STAR Products Plan 2016**

# 2015 Accomplishments: New and Revised Specifications

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## **New Specifications Completed**

Large Network Equipment

## **Revisions Completed**

Room Air Conditioners

Residential Dishwashers

Luminaires

Displays

Commercial Ovens (expanded scope to Rack Ovens)

Lamps

Fryers

## **Reviews**

Griddles

Ceiling Fans

GHP

Air Cleaners

# Keeping Product Specifications Up-to-date

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- 23 total specification updates underway in 2016/2017 anticipate 10 completed
- Drivers:
  - growing market share
  - new federal standards
  - new efficiency opportunities
  - opportunity to expand coverage
  - 3 years since last revision completed for long lived products; 2 years for shorter lived products (MOU)
- 8 specification development efforts for new products underway; anticipate completing 6
- Drivers:
  - significant energy savings
  - potential to differentiate products

# International

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Program focus in two areas:

- Maintaining international agreements on ENERGY STAR products
- Promote international harmonization of test methods and approaches as well as data sharing and testing and certification (*as appropriate*)
  - In 2016, participate in IEA harmonization efforts regarding Networked Products and any relevant SEAD efforts
  - Coordinate with the G7 and others to share information on the ENERGY STAR database
  - Facilitate consideration of SERT as a server efficiency test method by China through work with CNIS and SPECpower
  - Coordinate technical exchanges with CNIS, lighting manufacturers and other policy makers to share best practices on the development of LED lighting specifications
  - Work with Chinese lighting manufacturers on quality assurance programs for ENERGY STAR products
  - Participate as a technical expert in UNEP's en.lighten programme to phase out incandescent lighting worldwide

# ENERGY STAR Most Efficient

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- Maintain 12 product categories from 2015
- Support communications and marketing teams on promotion
- Consider high priority new categories for 2017 (i.e., Dryers)
- Support roll out of price and location info on ESME website

# ENERGY STAR Revisions/Development by Product Category

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ENERGY STAR Product Category	Revisions Underway	New Developments Underway
Electronics	8	
Heating and Cooling	6	2
Residential Appliances	2	1
Lighting	2	
Medical		2
Commercial Food Service	4	1
Other	1	2

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Appendix #1:

# **DETAILED PLAN FOR REVISED SPECIFICATIONS**

# Electronics & Computing

Product Category / Product	Drivers	Milestones (finalized and projected dates)	Testing Protocol
Imaging	High market share. Consider streaming lining included products. Consider proposal for commercial copiers.	5/16: Launch V3 development	DOE-Developed ENERGY STAR Test Procedure
UPSs	Large market share (estimated >70% total, with most of the share in residential/commercial).	6/16: Launch V2 development.	DOE-Developed ENERGY STAR Test Procedure
Small Network Equipment	Set new, more stringent levels given v1.0 qualification data received and Voluntary Agreement.	5/16: Launch V2 development	DOE-Developed ENERGY STAR Test Procedure
Audio	Current spec does not accurately account for whole home audio- need to include and develop test method. Also market share for Blu-Ray players and soundbars high(64%/80% respectively), providing an opportunity to further differentiate more efficient products.	5/16: Launch development for A/V revision, call for data. Launch draft test procedure to account for whole home audio.	Work with DOE re: addition to test method to account for whole home audio.
Set –Top Boxes	In anticipation of Tier 2 of the US VA, launch development of V5.0	11/15: launch 4/16: Finalize Version 5.0	CEA-2043, Set-top Box (STB) Power Measurement

# Electronics & Computing

Product Category / Product	Drivers	Milestones (finalized and projected dates)	Testing Protocol
Computers	Need to address power management and MS for notebooks, desktop efficiency opportunities.	2/16: Launch V7 development	DOE-Developed ENERGY STAR Test Procedure
Enterprise Servers	International interest in ENERGY STAR furthering active mode server testing. Data analysis from v2.0 products largely complete by Q1/2016, ready to move forward with active mode metric/specification.	3/16: Launch V3 development.	DOE-Developed ENERGY STAR Test Procedure
Telephony	MOU trigger. Market share analog phones 46% in 2014 (new spec took effect Oct 2014, need to confirm). VoIP phones 2%.	6/16 Launch review/revision	DOE-Developed ENERGY STAR Test Procedure

# Heating, Cooling, & Other

Product Category / Product	Drivers	Milestones (finalized and projected dates)	Testing Protocol
Ceiling Fans	Revise based on updated test method, first minimum efficiency standards	7/16: Launch (estimated; depends on DOE timing)	DOE Regulatory Test Procedure (Currently under rulemaking)
Dehumidifiers	Revise based on market share	11/15: Draft 1 3/16: Finalize	DOE Regulatory Test Procedure
LCHVACs	New federal standard	1/16: Draft 1 6/16: Finalize	DOE Regulatory Test Procedure
GHP additional products	Opportunity for further savings through inclusion of three categories of previously not labeled GHP products; 2 commercial and one residential	11/15: Strategy (expand LCHVAC spec, expand GHP spec, or start new spec, or a combination) 8/16: Finalize	DOE regulatory test methods, or ANSI/AHRI test methods (may vary depending on equipment)
Commercial Water Heaters	3 years since last revision completed (MOU). Heat Pump: Potential for savings; electric and gas equity.	6/16: Launch	DOE Regulatory Test Procedure; DOE developed Heat Pump Test procedure under development
Furnaces	3 years since last revision completed (MOU; use of new fans metric FERS)	3/16: Launch	DOE Regulatory Test Procedures

# Appliances

Product Category / Product	Drivers	Milestones (finalized and projected dates)	Testing Protocol
Commercial Clothes Washers	<p>Commercial washers unchanged by 2014 Clothes Washer 7.0 revision</p> <p>2015 DOE Test Procedure and Federal Standard</p>	<p>12/15: Review completed</p> <p>3/16: Begin revision, to align effective date with DOE</p>	DOE Regulatory Test Procedure for Commercial Clothes Washers
Residential Refrigerator	<p>Energy savings opportunity</p> <p>3 years since last revision completed (MOU)</p>	11/16: Begin review/possible revision	DOE Regulatory Test Procedure for Residential Refrigerators

# Lighting

Product	Drivers	Milestones	Testing Protocol
Dimming	Evaluation of effectiveness of the basic requirements and recommended practices in Lamps specification needed to potentially refine for integration into Lamps V2 and Luminaires V2.	TBD	ENERGY STAR Dimming Test Method
Luminaires 2.1	Additional color temperatures	5/16: Launch	TBD
Lamps 2.1	Additional color temperatures	4/16: Launch	TBD
Lumen Maintenance Guidance	Needs updating based on market developments with LED chip technology.	3/16: Release draft 6/16: Complete	N/A

# Commercial Food Service

Product Category / Product	Drivers	Milestones (finalized and projected dates)	Testing Protocol
Commercial Dishwashers	Revise based on large market share. 3 years since last revision completed (MOU) and New test method recently finalized.	1/16: Commence data collection per the new test method 6/16: Launch spec revision	DOE-Developed ENERGY STAR Test Procedure DOE engaged in the ASTM F26 revision of the test method
Commercial Ice Makers	Revise based on large market share, and MOU timing. New Federal standards take effect in 2018; revise to account for new federal standards	5/16: Launch revision 6/16: Draft 1 8/16: Draft 2 9/16: Draft Final 10/16: Finalize	DOE Regulatory Test Procedure (AHRI 810-2007 for water)

# Commercial Food Service (cont.)/Other

Product Category / Product	Drivers	Milestones (finalized and projected dates)	Testing Protocol
Commercial Refrigeration	Revise based on large market share. New Federal standards take effect in April 2017; revise to account for new federal standards.	12/15: Begin research & data collection 1/16: Draft 1 3/16: Draft 2 4/16: Draft Final 5/16: Finalize	DOE Regulatory Test Procedure
Vending	3 years since last revision completed (MOU). Update when new federal test method is finalized.	1 – 4/16: Track progress of new Federal test method	DOE Regulatory Test Procedure
Pool Pumps	3 years since last revision completed (MOU).	5/16: Launch	DOE developed ENERGY STAR test methods

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Appendix #2:

# **DETAILED PLAN FOR NEW SPECIFICATIONS**

# 2016 New Product Efforts\*

Product	Drivers	Milestones (finalized and projected dates)	Testing Protocol	Schedule (effective)
Connected Thermostats	Opportunity for energy savings.	1/16: Draft 3 spec, Draft 2 test method 5/16: Finalize	EPA developed ENERGY STAR test method including software to analyze field data for savings metric	2016
Miscellaneous Refrigeration	Opportunity for energy savings, manufacturer interest, 2.7 million wine chillers sold in 2013.	2/2016: Draft 1 distributed	Developed via DOE negotiated rulemaking	2017
Medical Imaging	Large energy saving opportunity, align with COCIR effort in Europe.	1/16: data assembly 3/16: Draft 1 released	DOE-Developed ENERGY STAR Test Procedure	2016
Medium Voltage Distribution Transformers	Opportunity to reap significant savings beyond DOE standard.	1/16: Draft 2 distributed 3/16: Final Draft distributed 5/16: Finalize	DOE Regulatory Test Procedure	2016
Commercial Boilers	Large energy savings opportunity.	1/16 Final Draft 3/16: Finalize	DOE Regulatory Test Procedure (Currently under rulemaking)	2016

\* As resources allow

# 2016 New Product Efforts\*

Product	Drivers	Milestones (finalized and projected dates)	Testing Protocol	Schedule (effective)
Lab-grade Refrigerators and Freezers	Manufacturer and end user interest. Energy savings opportunity in large energy using medical industry.	2/16: Final Draft distributed 3/16: Finalized	DOE-Developed ENERGY STAR Test Procedure	2016
Commercial Coffee Brewers	Significant national energy savings.	1/16: Draft 2, including scope expansion & proposed levels for single cup brewers 3/16: Draft Final 4/16: Finalize	ASTM F-2990-12, Standard Test Method for Commercial Coffee Brewers	2016
Electric Vehicle Supply Equipment	Significant growth in annual sales. Differentiation exists between products in standby and connected/network connectivity that can yield moderate savings, incentivize more efficient design.	1/2016: Draft 1 distributed 7/2016: Final distributed	IEC 62301 for Standby Other network protocols: Wi-Fi, EEE Connectivity/DR: TBD	2016
External and Internal Storm Panels (Storm Windows)	Manufacturer and utility interest. Quick payback. Supports low-income weatherization programs.	1/16: Framework document released 6-9/16: Draft 1 1-4/2017: Finalized	NFRC 300-14 and 301-14 procedures for glass emissivity and solar transmittance ASTM E283 procedure for air leakage	2017

\*As resources allow