
ENERGY STAR Products Plan 2021

2020 Accomplishments

Revisions/New Specifications

Data Center Storage

Commercial Dishwashers

Amendments

Imaging Reman 3.1

LNE 1.1

GHP 3.2

Lamps 2.1

Fryers

Griddles

Room Air Conditioners 4.2

Keeping Product Specifications Up-to-date

- 22 total specification updates underway in 2021 anticipate 8 completed
 - Drivers:
 - growing market share
 - new federal standards
 - new efficiency opportunities
 - opportunity to expand coverage
- 1 new product development effort under consideration anticipate 1 completed
 - Drivers:
 - significant energy savings
 - potential to differentiate products
- Test method development to support keeping specifications up-to-date

2021 Planned Revisions and New Specifications

Revisions

- **Electronics:** Audio/Video, Small Network Equipment, TVs, Displays (signage), Set Top Boxes, UPS
- **Heating, Ventilating, and Cooling:** CAC/HP, Furnaces (FERS), Smart Thermostats, Water Heaters, LCHVAC
- **Appliances:** Room Air Conditioners, Clothes Dryers, Clothes Washers, Dishwashers
- **Commercial Food Service:** Commercial Ovens, Commercial Refrigeration Equipment, Steam Cookers
- **Home Envelope:** Windows/Doors/Skylights
- **Other:** Lab Grade Refrigerators/Freezers, Water Coolers

New Specification Developments

- Commercial Electric Cooktops

2021 Planned Amendments and Test Method Activity

- **Electronics:** Imaging Equipment (scope expansion for Professional Products); Residential Battery Storage (support Test Method development); EVSE (scope expansion for DC Fast Charge)
- **Heating, Ventilating, and Cooling:** Connected Thermostats Method to Demonstrate Field Savings and associated software
- **Appliances:** Refrigerators/Freezers (scope expansion for Miscellaneous Refrigeration); Clothes Washers and Clothes Dryers (scope expansion for air-cooled combo washer/dryer)
- **Commercial Food Service:** Commercial Ice Test Method (groundwork for scope expansion for melt and purge); Update referenced test methods for: Commercial Griddles and Commercial Fryers
- **Other:** Pool Pumps Amendment (update optional connected criteria); Lab Grade Refrigerators/Freezers (to address solid state)

2021 ENERGY STAR Revisions/New Products Under Consideration by Product Category

ENERGY STAR Product Category	Revisions Underway	New Products Under Consideration
Electronics	6	
Heating and Cooling	5	
Residential Appliances	5	
Commercial Food Service	3	1
Home Envelope	1	
Other	2	

Appendix #1:

2021 DETAILED PLANS FOR REVISED SPECIFICATIONS

Electronics & Computing

Product Category / Product	Drivers	Milestones (projected dates)	Testing Protocol
Audio/Video	ESRPP interest in Sounds Bars. CTA industry consensus test method development to better recognize gains in efficiency.	1/21: Draft 1 TM (V4.0) 2/21: Call for data 3/21: Draft 1 Spec 5/21: Draft 2 Spec 7/21: Final Draft Spec 8/21: Final	DOE-Developed ENERGY STAR Test Procedure
TVs	Create performance-based spec to reward best performers and drive participation.	2/21: Draft 2 Spec 6/21: Final	ENERGY STAR Test Procedure
Small Network Equipment	Align with the EU Code of Conduct to drive participation in program.	1/21: Draft 1 4/21: Draft 2 6/21: Final	DOE-Developed ENERGY STAR Test Procedure
STBs	Shifting market, VA that acts as backstop	3/21: Propose Sunset	ENERGY STAR Test Procedure
UPS	Review: Increased market share, changing market.	1/21 - Draft 1	DOE Developed ENERGY STAR Test Procedure

Heating, Cooling, & Water Heating

Product Category / Product	Drivers	Milestones (projected dates)	Testing Protocol
LCHVAC	DOE Testing Update; electrification	TBD	DOE Regulatory Test Procedure
CAC/HP	Recognize market leader shift to variable or stepped capacity; incentivize cold climate performance; add optional connected criteria.	1/1: Finalize	DOE Regulatory Test Procedure
Furnaces	Add fan performance (based on FERS); consider how blower-coil units and air handlers fit	Q1/Q2: Launch	DOE Regulatory Test Procedure
Smart Thermostats	Close resistance heating loophole, expand to include communicating and line voltage thermostats, possibly update metric for closer relationship to meter savings	Q1/Q2: Metrics workgroup meets monthly, programming updates Q3: Launch	ENERGY STAR Method to Demonstrate Field Savings
Water Heaters	Opportunity for spec to better reflect products on the market	Q1: Finalize	DOE Regulatory Test Procedure

Appliances

Product Category / Product	Drivers	Milestones (projected dates)	Testing Protocol
Room Air Conditioners	Market share 50%.	2/21: Draft 1 4/21: Draft 2 7/21: Final	DOE Regulatory Test Procedure
Clothes Washer	Market share 50% Potential regulatory changes for CCW	Q3: 2021: Review	DOE Regulatory Test Procedure
Clothes Dryer	Review	TBD	DOE Regulatory Test Procedure
Dishwashers	Market share +90%	1/21: Draft 2 5/21: Final	DOE Regulatory Test Procedure

Home Envelope

Product Category / Product	Drivers	Milestones (projected dates)	Testing Protocol
Windows, doors, and skylights	Residential Windows 85% Hinged Entry Doors 79% All Patio Doors 83% Skylights 68%	Q1: Criteria Analysis Report and Draft 1 Q2: Final Draft	

Commercial Food Service

Product Category / Product	Drivers	Milestones (projected dates)	Testing Protocol
Commercial Ovens	Market share 51% and updates to ASTM F2861-17 and F2093-18.	1/21: Draft 1 4/21: Draft 2 7/21: Final Draft 8/21: Final	ASTM test methods: ASTM F1496-13 (2019), ASTM F2861-17, and ASTM F2093-18.
Commercial Refrigeration	Market share 46%. Test method vetting and scope expansion.	12/20: Discussion Guide 3/21: Draft 1 7/21: Draft 2 11/21: Final Draft 1/22: Final	DOE Regulatory Test Procedure, ASTM F2143, ASHRAE
Steam Cookers	Market share 41%. Opportunity to update referenced test method (ASTM F1484-18), revise idle rate, and cooking efficiency levels, include max water consumption levels, and differentiate boilerless and steam generator efficiency thresholds.	6/21: Draft 1 9/21: Draft 2 12/21: Final Draft 2/22: Final	ASTM F1484-18: <i>Test Method for the Performance of Steamers</i>

Other

Product Category / Product	Drivers	Milestones (projected dates)	Testing Protocol
Water Coolers	Market share 62%. Scope expansion opportunities. More stringent certification levels. Potential test method amendments and definition clarifications.	12/20: Draft 2 3/20: Final draft 4/20: Final	ENERGY STAR test method
Lab Grade Refrigerator/Freezer	Request by stakeholders; Test method does not fully accommodate solid state products or ULTs that use liquid nitrogen/helium	If only spec change: Q1: Draft 1 Final: early Q3 If spec + TM change: Q3/4: Draft 1	ENERGY STAR Test Method for Laboratory Grade Refrigerators, Freezers, and Ultra-Low Temperature Freezers

Appendix #2:

2021 PLANS FOR NEW SPECIFICATIONS

2021 Plans for New Specifications

Product	Drivers	Milestones (projected dates)	Test Protocol
Commercial Electric Cooktops	Energy savings. Electrification and utility interest. Ancillary benefits.	1/21: Discussion Guide 4/21: Draft 1 7/21: Draft 2 10/21: Final Draft 11/21: Final	ASTM F1521-2x (expected revisions): Standard Test Methods for the Performance of Range Tops

2021 Possible Product Scoping

- Demand Control Kitchen Ventilation
- Pressure fryers
- Tilt skillets
- Rotisserie ovens
- Hand dryers
- Bio-safety cabinets
- Heat and Energy Recovery Ventilators
- Air Handler/Blower units to compliment ASHP
- Home Storage Systems
- Datacenter Cooling
- Electric lawn products
- Hot water circulation pumps