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# **ENERGY STAR Products Specification Development and 2024 Workplan**

# 2023 Accomplishments

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## Revisions / New Specifications

Room Air Conditioners V5  
Servers V4  
Set Boxes (sunset)  
Lighting (sunset)  
Commercial Electric Cooktops V1  
Residential Electric Cooking Products V1  
Downlights V1

## Amendment

Electric Vehicle Supply  
Equipment V1.2

# Keeping Product Specifications Up-to-date

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- 16 total specification updates underway in 2024; anticipate 5 completed
  - Drivers:
    - growing market share
    - new federal standards
    - new efficiency opportunities
    - opportunity to expand coverage
- 2 new product development efforts under consideration; anticipate 2 completed
  - Drivers:
    - significant energy savings
    - potential to differentiate products
- Test method development to support keeping specifications up-to-date and providing low carbon pathways.

# 2024 Planned Revisions and New Specifications

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## *Revisions*

- **Heating, Ventilating, and Cooling:** Residential Boilers, Commercial Water Heaters, Smart Thermostats, Ceiling and Vent Fans
- **Appliances:** Clothes Dryers, Clothes Washers, Dehumidifiers, Refrigerators, Room Air Conditioners, Room Air Cleaners
- **Electronics:** Audio/Video, Computers
- **Commercial Food Service:** Steam Cookers
- **Medical:** Lab Grade Refrigeration
- **Other:** EVSE

## *New Specification Developments*

- Medical Imaging Equipment
- New heat pump types

# 2024 Planned Amendments and Test Method Activity

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- **Heating, Ventilating, and Cooling:**
  - Smart Thermostats Method to Demonstrate Field Savings and associated software
  - ENERGY STAR test method for commercial central Heat Pump Water Heaters
  - ENERGY STAR method for Heat Pump Boilers
- **Appliances:**
  - Room Air Conditioner Heating Mode Test Procedure
  - Dishwashers
- **Commercial Food Service:**
  - Commercial Refrigeration Equipment
  - Hot Food Holding Cabinets
  - Fryers

# 2024 ENERGY STAR Revisions/New Products Under Consideration by Product Category

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<b>ENERGY STAR Product Category</b>	<b>Revisions Underway</b>	<b>New Products Under Consideration</b>
<b>Electronics</b>	<b>2</b>	
<b>Heating, Cooling, Ventilating</b>	<b>5</b>	<b>1</b>
<b>Residential Appliances</b>	<b>6</b>	
<b>Commercial Food Service</b>	<b>1</b>	
<b>Medical</b>	<b>1</b>	<b>1</b>
<b>Other</b>	<b>1</b>	

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Appendix #1:

# **DETAILED PLAN FOR REVISED SPECIFICATIONS**



# Heating, Cooling, Ventilating & Water Heating

Product Category / Product	Drivers	Milestones	Testing Protocol
Ceiling fans	DOE NOPR would raise levels above ENERGY STAR levels for some fan types.	Q4: Draft 1	DOE Regulatory Test Method
Commercial Water Heaters	Expand participation of central Heat Pump Water Heaters to serve multifamily; Gas Market Share in 2022 51%	Q1: Draft Final TM; Draft 1 specification	DOE Regulatory Test plus ENERGY STAR Test Method for central HPWH
Residential Boilers	Including expanded scope for Heat Pump Boilers	Q2: Draft 1 TM Q3: Draft 1 spec; Draft final TM Q4: Final Draft; Finalize	ENERGY STAR Test Method for Heat Pump Boilers
Smart Thermostats	Opportunity to expand scope and improve savings metric.	Q2: Final Draft (and Final Draft TM) Q3: Finalize	ENERGY STAR Method to Demonstrate Field Savings
Vent fans	Opportunity to address airflow and capture efficiency metric under development.	Q3: Draft 1 ( if TM complete)	Nominal installed airflow + capture efficiency metric in progress by ASHRAE and HVI
Commercial Boilers – For Review	Time since last revision	Q1: TBD	DOE Regulatory Test Method





# Appliances

Product Category / Product	Drivers	Milestones	Testing Protocol
Room Air Conditioners	Market Share in 2022 50% New DOE federal standards required on May 26, 2026	Q2: Draft 1 Q3: Draft 2 Q4: Final	DOE Regulatory Test Procedure; ENERGY STAR RAC Heating Mode Test
Clothes Dryers	Time to review. Market Share in 2022 48%	Q1: Draft 1 Q2: Draft 2 Q3: Final	DOE Regulatory Test Procedure
Consumer Refrigeration Products	Refrigerators Market Share in 2022 66%	Q1: Draft 1 Q2: Draft 2 Q2: Final	DOE Regulatory Test Procedure
Dehumidifiers	Market Share in 2022 90%	Q1: Draft 1 Q2: Draft 2 Q2: Final	DOE Regulatory Test Procedure
Clothes Washers	DOE updating CW test method and standard. Market Share in 2022 61%	Q1: Draft 1 Q2: Draft 2 Q3: Final	DOE Regulatory Test Procedure
Room Air Cleaners	DOE test procedure and new standards. Market Share in 2022 86%	TBD	DOE Regulatory Test Procedure



# Electronics, Computing, CFS, Medical, Other

Product Category / Product	Drivers	Milestones	Testing Protocol
Audio/Video	Time since last revision. Market Share in 2022 59% for DVDs.	TBD	DOE-Developed ENERGY STAR Test Procedure
Computers	Account for changes in the computer market, recognize top performers. Market Share in 2022 68% (71% notebooks, 55% desktops)	Q4 (2023): Draft 1 Q1: Draft 2 Q2: Final Draft Q2: Final	ENERGY STAR Test Procedure
EVSE	Interest from stakeholders in expanding scope	TBD	ENERGY STAR Test Method for EVSE
Lab Grade Refrigerators and Freezers	Time to review Stakeholders requesting revision to spec and Test Method MS (anecdotally) is high	Q3 (2023): Draft 1 Q1 (2024): Draft 2 Q1/Q2 (2024): Final	ENERGY STAR Test Method for Lab Grade Refrigerators and Freezers
Steam Cookers	Market Share in 2022 39%. Opportunity to revise idle rate and cooking efficiency levels	TBD	ASTM F1484-18

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Appendix #2:

# **2024 PLANS FOR NEW SPECIFICATIONS**

# 2024 Plans for New Specifications

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<b>Product</b>	<b>Drivers</b>	<b>Milestones (projected dates)</b>	<b>Test Protocol</b>
Medical Imaging Equipment	Energy savings	Q1: Draft 2 Q1/Q2: Final Draft Q2: Final	COCIR
New Heat Pump Types	Expand coverage of heat pumps for multifamily buildings (PTHP, SPVU, possible space-constrained HPs)	Q1: discussion guide or Draft 1; one spec or more, some types added to res hp specification Finalize by end of year	DOE Regulatory Test Method(s)