

Tuesday, January 10th, 2023

Appliance and Equipment Efficiency Standards

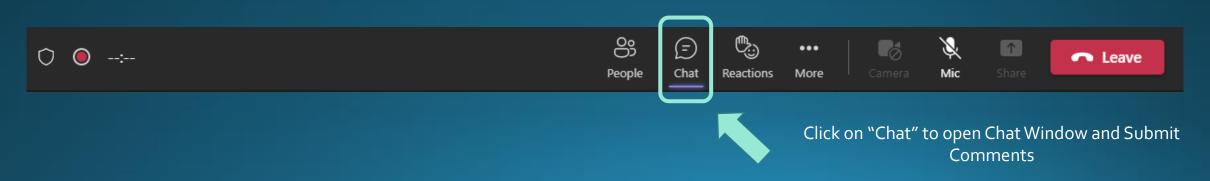
Moderator: Helaine Barr, Chief, Bureau of Climate Change and Clean Energy

Agenda

- Introduction and Background
- Overview of Certification, Labeling and Testing Requirements
- Certification Process
- Overview of Requirements by Appliance Category
- Enforcement & Inspection
- Requested Feedback + Public Comment
- Closing Remarks

Ground Rules

- 1. This meeting is being recorded, by being here you agree to be recorded.
- 2. This meeting will be made available on <u>dep.nj.gov/appliancestandards/</u>
- 3. If you have a comment or question, please enter it into the chat.
- 4. Comments and questions may be taken at the end of the presentation. The Department intends to develop a FAQ which will be posted at: <u>https://dep.nj.gov/appliancestandards/</u>
- 5. This presentation is for informative purposes only. The statute takes precedence over the information presented in this presentation.





Public Comments

Accepted through February 13th 2023
Send to appliancestandards@dep.nj.gov



Introduction and Background

Robert Kettig, Assistant Director Climate Change, Clean Energy, and Sustainability

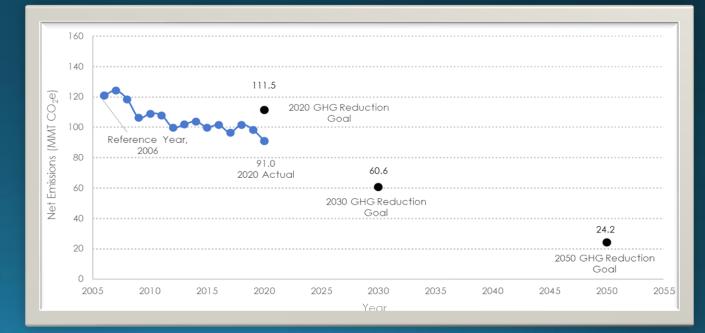
80% REDUCTION

From 2006 baseline
BY THE YEAR 2050

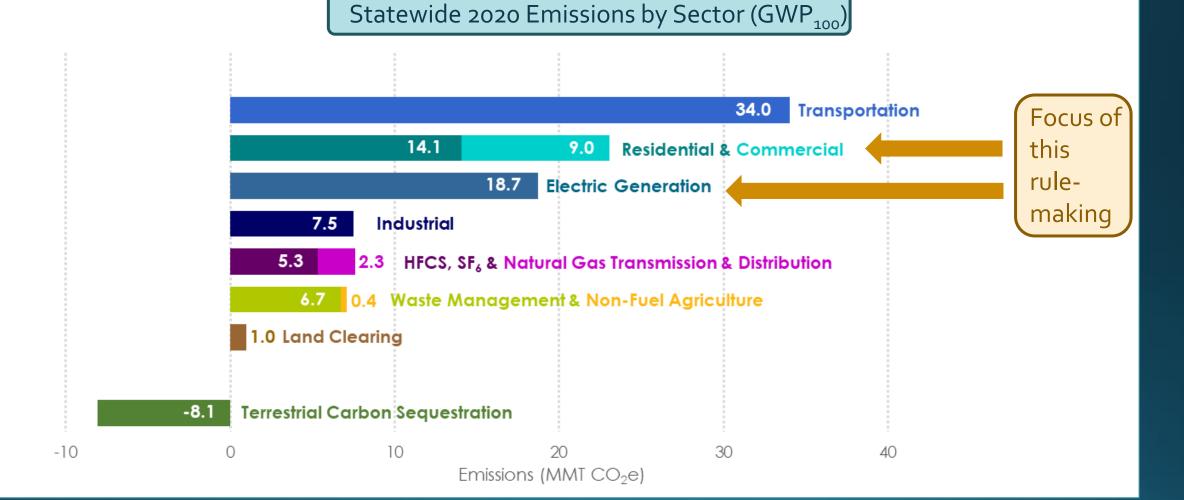
50% REDUCTION

From 2006 baseline
BY THE YEAR 2030

Greenhouse Gas Reduction Goals



Greenhouse Gas Emissions in New Jersey



What are Appliance and Equipment Efficiency Standards?

- Appliance Standards and Equipment Energy Efficiency Standards set minimum energy and water efficiency requirements.
- They work by making sure that all products sold in the market are efficient. Inefficient and wasteful products that don't meet the standard cannot be sold, leased or installed.
- Standards work best when they are consistent across states, so compliance in one state makes it easy to comply in others.



Appliance and Equipment Efficiency Standards Benefits



Estimated Savings for New Jersey

Annual bill savings

- \$126 million in 2025
- \$392 million in 2035

Cumulative savings\$2.5 billion through 2035

Annual emission reductions

- In 2025: 178,000 metric tons
- In 2035: 448,000 metric tons

Cumulative emission reductions

 3.6 million metric tons of CO₂ through 2035 or the equivalent emissions of 775,000 cars

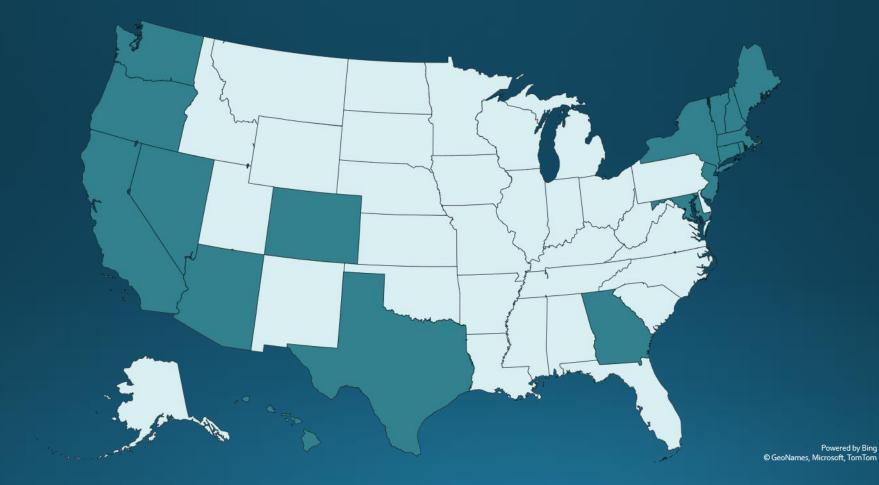
*Savings Estimated by the Appliance Standards Awareness Project

History of Standards



State Appliance Standards Effective: January 18th 2023

State Standards



Source: State Appliance Standards Awareness Project

New Jersey's Appliance and Equipment Efficiency Standards Law

New Jersey's law has five major components

Efficiency Standards



Standards

• ENERGY STAR

- Air Purifiers, Commercial Dishwashers, Commercial Fryers, Commercial hot-food holding cabinets, Commercial Ovens, Commercial Steam Cookers, Electric Vehicle Service Equipment, Water Coolers
- US EPA WaterSense
 - Spray Sprinklers
- California Energy Commission
 Computers or Computer Monitors

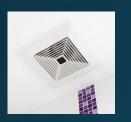






18 Covered Products

Air Purifiers, Fans, Lamps





















Water Fittings, Fixtures, and Appliances









Charging Stations Portable Electric Spas



Computers / Monitors

Electric Vehicle













Exemptions

New products manufactured in the State and sold outside the State;

New products manufactured outside the State and sold outside the State or at wholesale inside the State for final retail sale and installation outside the State;

Products installed in mobile manufactured homes at the time of construction; or

Products designed expressly for installation and use in recreational vehicles.









What brings us here today...



This meeting is also intended to receive feedback from stakeholders to inform the Department's rulemaking effort



Requirements Session



Overview of Certification, Labeling, and Testing Requirements

Matthew Rivas, Rule Manager Bureau of Climate Change and Clean Energy

Process

Testing

Labeling

Certification

Testing

- Testing is necessary to ensure that regulated products meet the efficiency standards in the law
- Manufacturers must test products annually in accordance with appliance-specific testing standards in the law
- Testing language in the law varies by appliance



Labeling

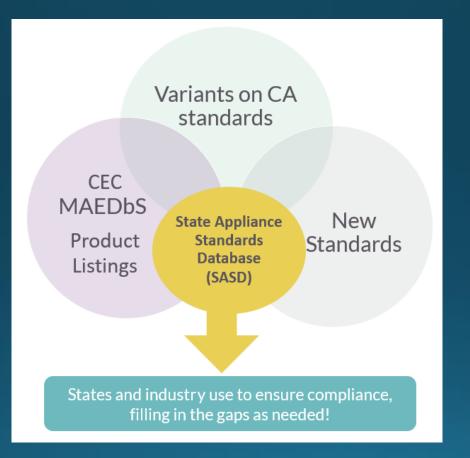
- Labeling is necessary to ensure that regulated products meet the provisions of this law at the point of sale and installation
- Manufacturers must include labeling information with product certification
- Labeling language in the law is broad and allows for use of existing marks, labels or tags



Certification

- Certification is necessary to certify that the regulated products comply with the provisions of this law.
- Manufacturers must certify regulated products annually.
- The Department is considering two certification processes:
 - State Appliance Standards Database (SASD)
 - Modernized Appliance Efficiency Database System (MAEDbS)





SASD is a NEEP product built and administered by Energy Solutions

SASD Product Types

SASD Product Types		
Air Purifiers	Gas fireplaces (not covered in NJ)	
Commercial Dishwashers	Federally-exempt linear fluorescent lamps (High CRI)	
Commercial Fryers	Portable Electric Spa	
Commercial Hot Food Holding Cabinets	Residential Ventilation Fans	
Commercial Ovens	Showerheads	
Commercial Steam Cookers	Spray Sprinkler Bodies	
Computers/Computer Monitors	Urinals	
Electric Vehicle Supply Equipment	Water Coolers	
Faucets	Water Closets (toilets)	

To find more information, please visit: <u>State Appliance Standards Database - Homepage (mendixcloud.com)</u> 25

PRODUCT SEARCH / STATE LISTING

SASD State Appliance Standards Database						Home Resources - Sy:
F	Product Search					
а	o begin your search, enter the model n dditional filters as necessary.	umber, manufacturer name, or bra	nd and click search. Use the	0	0	24.054
	Enter Search roduct(s)	State(s)		Awaiting Manufacturer Approval	Awaiting Your Approval	24,951 Certified Products
	Q Search Reset					
2	Product Import					
	Search Results				4 44 1	l to 30 of 24951 → 🕨
	Product Type	Brand Name	Model Number			
	Air Purifier (Air Cleaner)	Blueair	3431101000		🖸 Edit	>
	Air Purifier (Air Cleaner)	Blueair	3631101000		🖸 Edit	>
	Air Purifier (Air Cleaner)	Blueair	405		🖸 Edit	>
	Air Purifier (Air Cleaner)	Blueair	503		🖸 Edit	>
	Air Purifier (Air Cleaner)	Blueair	505		🖸 Edit	>
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	Air Purifier (Air Cleaner)	Blueair	5431111000		🖸 Edit	>

To find more information, please visit: State Appliance Standards Database - Homepage (mendixcloud.com) 26

Industry Support

SASD State Appliance Standards Database	Home	Resources -	System Tools	Logout	Welcome, cmiziolek
Industry Resource					
1. How do I certify my product to the SASD?					+
2. What is the manufacturer's responsibility in the compliance process?					+
3. What is the distributor, retailer, and installer's responsibility in the compliance process?					+
4. Where can I find information on the scope and requirements of the various state standards?					+
5. Am I supposed to certify my product to the SASD or MAEDbS?					+
6. When do state standards become effective?					+
7. Why are some product types not included in this database?					+
8. Where can I find additional information on appliance standards?					+
9. My product is already listed on the SASD, but I didn't upload or approve it. Why is that?					+

To find more information, please visit: NEEP.org/SASD



Overview of Requirements for:

• Fans, Lamps, and Air Purifiers

Standards – Set in Statute

Appliance	Statutory Standards
Residential Ventilating Fans	See statutory language
Cold Temperature Fluorescent Lamps	10 CFR Part 430.32(n)(4)
High Color Rendering Index Fluorescent Lamps	10 CFR Part 430.32(n)(4)
Impact-resistant Fluorescent Lamps	10 CFR Part 430.32(n)(4)
State-Regulated General Service Lamps	45 lumens per watt
Air Purifiers	See statutory language

Residential Ventilating Fans

Standard:

• Sets maximum power per unit of flow rate



Testing	Home Ventilation Institute Publication 916 "HVI Airflow Test Procedure"
Certification	Considering the State Appliance Standards Database (SASD)
Labeling	Considering no requirement

Fluorescent Lamps

Standard:

High color rendering index, Cold-Temperature & Impact-resistant:

• Minimum efficacy requirements of Section 430.32(n)(4) of Title 10, Code of Federal Regulations



Testing	"Uniform Test Method for Measuring Average Lamp Efficacy (LE), Color Rendering Index (CRI), and Correlated Color Temperature (CCT) of Electric Lamps" in Appendix R to Subpart B of Part 430 of Title 10, Code of Federal Regulations
Certification	Considering the State Appliance Standards Database (SASD)
.abeling	Considering the Federal Energy and Water Label Rule 305.23 (see Appendix L)

State-Regulated General Service Lamps

Standard:

• Efficacy of 45 lumens per watt



Testing	10 CFR Section 430.23(gg)
Certification	Considering the State Appliance Standards Database (SASD)
Labeling	Considering the Federal Energy and Water Label Rule 305.23 (see Appendix L)

Air Purifiers

Standard:

- Sets minimum clean air delivery rate for smoke
- Sets maximum ozone emission limits
- Sets partial on mode power wattage



Testing	Considering ENERGY STAR Version 2.0
Certification	Considering the State Appliance Standards Database (SASD)
Labeling	Considering ENERGY STAR and/or NJ-Specific Labeling Requirements



Overview of Requirements for:

Commercial Food Service Equipment

Standards – Set in Statute

Appliance	Statutory Standard
Commercial Hot Food Holding Cabinets	Energy Star: Version 2.0
Commercial Steam Cookers	Energy Star: Version 1.2
Commercial Dishwashers	Energy Star: Version 2.0
Commercial Fryers	Energy Star: Version 2.0
Commercial Ovens	Energy Star: Version 2.2

Commercial Hot Food Holding Cabinets

Standard:

 Energy Star Program Requirements for Commercial Hot Food Holding Cabinets Version 2.0



Testing	Considering Energy Star Version 2.0
Certification	Considering the State Appliance Standards Database (SASD)
Labeling	Considering Energy Star

Commercial Steam Cookers

Standard:

• Energy Star Program Requirements for Commercial Steam Cookers, Version 1.2



Testing	Considering Energy Star Version 1.2
Certification	Considering the State Appliance Standards Database (SASD)
Labeling	Considering Energy Star

Commercial Dishwasher

Standard:

- Energy Star Program Requirements for Commercial Dishwashers Version 2.0
 - Energy Star Version 2.0 only covers electric models



Testing	Considering Energy Star Version 2.0
Certification	Considering the State Appliance Standards Database (SASD)
Labeling	Considering Energy Star and/or NJ-Specific Labeling Requirements

Commercial Fryers

Standard:

 Energy Star Program Requirements for Commercial Fryers Version 2.0



Testing	Considering Energy Star Version 2.0
Certification	Considering the State Appliance Standards Database (SASD)
Labeling	Considering Energy Star and/or NJ-Specific Labeling Requirements

Commercial Ovens

Standard:

• Energy Star Program Requirements for Commercial Ovens Version 2.2



Testing	Considering Energy Star Version 2.2
Certification	Considering the State Appliance Standards Database (SASD)
Labeling	Considering Energy Star and/or NJ-Specific Labeling Requirements



Overview of Requirements for:

• Water Fittings, Fixtures, and Appliances

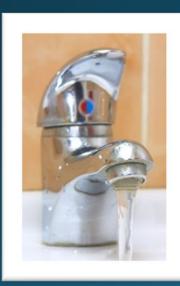
Standards – Set in Statute

Appliance	Statutory Standard
Faucets	See statutory language
Showerheads	See statutory language
Urinals or Toilets	See statutory language
Water Coolers	Energy Star: Version 2.0
Spray Sprinkler Bodies	WaterSense: Version 1.0

Faucets

Standard:

• Sets maximum flow rates for bathroom, kitchen, and public bathroom faucets.



Testing	Tested in Accordance with 10 CFR Part 430, Appendix S to Subpart B
Certification	Considering the State Appliance Standards Database (SASD)
Labeling	Considering Federal Energy and Water Label Rule 305.24

Showerheads

Standard:

• Sets maximum flow rate for showerheads



Testing	Tested in accordance with Appendix S to Subpart B of Part 430 of Title 10 CFR and compliance with those requirements shall be the "Uniform Test Method for Measuring the Water Consumption of Faucets and Showerheads"
Certification	Considering the State Appliance Standards Database (SASD)
Labeling	Considering Federal Energy and Water Label Rule 305.24

Toilets (Water Closets) and Urinals

Standard:

Sets flush maximum volume for • toilets and urinals.





Testing	Tested in accordance with Appendix T to Subpart B of Part 430 of Title 10, CFR "Uniform Test Method for Measuring the Water Consumption of Water Closets and Urinals." A toilet shall be required to pass the waste extraction test for toilets in the ASME standard A112.19.3
Certification	Considering the State Appliance Standards Database (SASD)
Labeling	Considering Federal Energy and Water Label Rule 305.24

Water Coolers

Standard:

 Energy Star Program Requirements Product Specification for Water Coolers, Version 2.0



Testing	Considering Energy Star Version 2.0
Certification	Considering the State Appliance Standards Database (SASD)
Labeling	Considering Energy Star and/or NJ-Specific Labeling Requirements

Spray Sprinkler Bodies

Standard:

 Requires an integral pressure regulator and compliance with the water efficiency and performance criteria and other requirements of the "Specification for Spray Sprinkler Bodies, Version 1.0".



Testing	Considering Appendix B of the WaterSense® Specification for Spray Sprinkler Bodies Version 1.0
Certification	Considering the Sate Appliance Standards Database (SASD)
Labeling	Considering WaterSense®



Overview of Requirements for:

- Portable Electric Spas
- Computers/Computer Monitors
- Electric Vehicle Service Equipment

Standards – Set in Statute

Appliance	Statutory Standard
Portable Electric Spas	American National Standard for Portable Electric Spa Energy Efficiency 14-2019
Computers and Computer Monitors	CCR Title 20, Section 1605.3(v)
Electric Vehicle Service Equipment	Energy Star: Version 1.0

Portable Electric Spas

Standard:

• American National Standard for Portable Electric Spa Energy Efficiency 14-2019



Testing	Considering American National Standard for portable electric spa energy efficiency (ANSI/APSP/ICC- 14 2019)
Certification	Considering the State Appliance Standards Database (SASD)
Labeling	Considering American National Standard for portable electric spa energy efficiency (ANSI/APSP/ICC- 14 2019)

Computers and Computer Monitors

Standard:

 Will meet the requirements of the California Code of Regulations, Title 20, Section 1605.3(v)



Testing	Test methods prescribed in CCR, Title 20, Section 1604(v)
Certification	Considering the State Appliance Standards Database (SASD)
Labeling	Considering California Rule, Section 1607

Electric Vehicle Service Equipment

Standard:

 Energy Star Program Requirements Product Specification for Electric Vehicle Supply Equipment (level 1 and level 2 chargers), Version 1.0



Testing	Considering Energy Star Version 1.0
Certification	Considering the State Appliance Standards Database (SASD)
Labeling	Considering Energy Star



Enforcement and Inspection

Enforcement and Inspection





DEP - Periodic inspections of distributors and retailers

DEP - Investigations of complaints



DEP - Publication of noncompliant products found

Appliance Installation Enforcement

Beginning January 18, 2023...

 Upon final inspection of the installation of any appliance or product subject to the State Uniform Construction Code, the official is required to check that the product contains a mark, label, or tag denoting that the product meets or exceeds the efficiency standards

Section 3 of P.L. 2021 c. 464





Inspection and Enforcement

- The Department may periodically inspect distributors or retailers of new products to determine compliance
- The Department shall investigate complaints received in violations of this act
 - 1st Violation: Warning
 - 2nd Violation: Civil Penalty up to \$1000
 - 3rd and Subsequent Violations: Civil Penalty not more than \$5000
- In addition to the above penalties the Department shall issue an additional civil penalty equal to <u>twice</u> the cost of the product purchase and testing.
- The Department shall make information available to the public on products found not to be in compliance with the standards
 - The Department is **considering** making this information available to the public through NJEMS.









Three Year Report

Looking Forward

3 Year Study & Report Requirements

By January 18th 2025:

- The Department of Environmental Protection, Board of Public Utilities and the Department of Community Affairs are required to conduct a study to evaluate whether to add more products and/or adopt more stringent standards.
- The Department is required to submit a report to the Governor and to the Legislature with recommendations for legislative action.

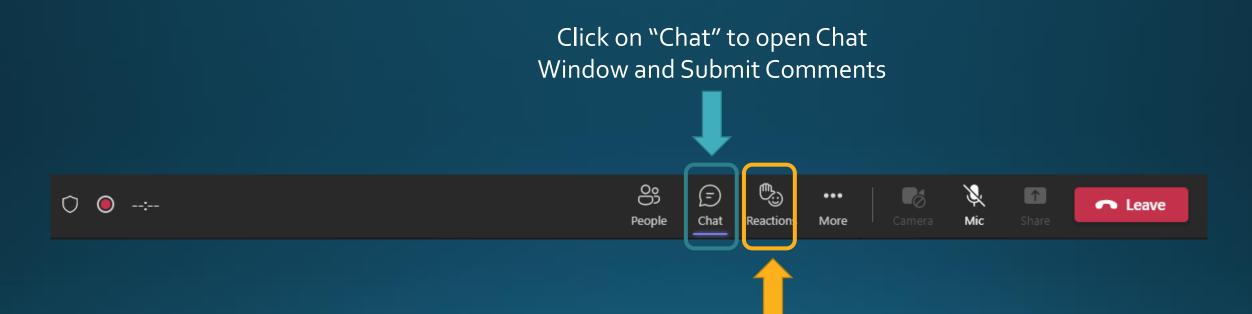






Requested Feedback + Public Comment

Teams Functionality



Click on "Reactions" to and select "Raise Hand Feature" to indicate you'd like to speak

General Questions

- 1. The Department is seeking recommendations on the time of the year for annual reporting cycles for manufacturers. This information will inform certification requirements.
- 2. The Department is seeking recommendations on what additional resources should be posted on the Appliance and Equipment Efficiency Standards Website.
 - https://dep.nj.gov/appliancestandards/

Questions: Labeling

1. The Department is seeking stakeholder input on what type of labeling information (i.e. manufacturer name, model number, etc.) should be required for products that cannot utilize third-party labeling (such as products that meet Energy Star standards in the law, but do not meet the most current Energy Star version specifications).

Questions: Benefits Assessment

- 1. The Department is seeking input on sources of data for regulated products, including:
 - 1. Product energy use;
 - 2. Product sales; and
 - 3. Market penetration

The Department will quantify the benefits of the new standards in terms of energy, cost and emissions reduction. Sources of other information that can improve benefit assessment, for example improved methods for quantifying use and consumption, would also be helpful.

2. The Department is seeking input to inform the mandatory 3-year study and report.



Public Comments

Accepted through February 13th 2023
Send to: appliancestandards@dep.nj.gov

Stay Updated

• Get updates delivered to your inbox: <u>dep.nj.gov/appliancestandards/</u>

Closing Remarks

- What's Next
 - Comment period closes February 13, 2023
 - FAQ to be released following the comment period
- Thank you for your participation