AN ACT

RELATING TO PUBLIC UTILITIES AND CARRIERS -- ESTABLISHING APPLIANCE AND EQUIPMENT ENERGY AND WATER EFFICIENCY STANDARDS OF 2020

Introduced By: Senators Satchell, Sosnowski, Valverde, Seveney, and Coyne

Date Introduced: January 21, 2020

Referred To: Senate Environment & Agriculture

It is enacted by the General Assembly as follows:

SECTION 1. Title 39 of the General Laws entitled "PUBLIC UTILITIES AND CARRIERS" is hereby amended by adding thereto the following chapter:

CHAPTER 27.1

APPLIANCE AND EQUIPMENT ENERGY AND WATER EFFICIENCY STANDARDS OF 2020


This chapter shall be known and may be cited as the "Appliance and Equipment Energy and Water Efficiency Standards of 2020."


This chapter establishes minimum efficiency standards for certain products sold or installed in the state. This chapter shall, upon enactment, be construed to supersede the provisions of chapter 39 of title 27, "The Energy and Consumer Savings Act of 2005", but only to the extent that any products sold or installed in compliance with the provisions of chapter 39 of title 27 be replaced on or after July 1, 2021, with products that are in accordance with the provisions of this chapter.


The general assembly finds that:

(1) Efficiency standards for certain products sold or installed in the state assure
consumers and businesses that such products meet minimum efficiency performance levels, thus reducing energy and water waste and saving consumers and businesses money on utility bills.

(2) Efficiency standards contribute to the economy of this state by helping to better balance supply and demand for both energy and water, thus reducing pressure that creates higher natural gas, electricity, and water prices. By saving consumers and businesses money on utility bills, efficiency standards help the state and local economy, since utility bill savings can be spent on local goods and services.

(3) The efficiency standards save energy and thus reduce pollution and other environmental impacts associated with the production, distribution, and use of electricity, natural gas, and other fuels.

(4) The water efficiency standards save water and thus reduce the strain on the water supply. Furthermore, improved water efficiency can reduce or delay the need for water and sewer infrastructure improvements.

(5) The efficiency standards can make electricity and natural gas systems more reliable by reducing the strain on systems during peak demand periods. Furthermore, improved efficiency can reduce or delay the need for new power plants, power transmission lines, and power distribution system upgrades as well as new and expanded gas pipelines.


As used in this chapter:

(1) "Air compressor" means a compressor designed to compress air that has an inlet open to the atmosphere or other source of air, and is made up of a compression element (bare compressor), driver(s), mechanical equipment to drive the compressor element, and any ancillary equipment.

(2) "Air purifier," also known as "room air cleaner," means an electric, cord-connected, portable appliance with the primary function of removing particulate matter from the air and which can be moved from room to room.

(3) "Commercial dishwasher" means a machine designed to clean and sanitize plates, pots, pans, glasses, cups, bowls, utensils, and trays by applying sprays of detergent solution (with or without blasting media granules) and a sanitizing rinse.

(4) "Commercial steam cooker," also known as "compartment steamer," means a device with one or more food-steaming compartments in which the energy in the steam is transferred to the food by direct contact. Models may include countertop models, wall-mounted models, and floor models mounted on a stand, pedestal, or cabinet-style base.

(5) "Commissioner" means the commissioner of the Rhode Island office of energy
resources.

(6) "Compensation" means money or any other valuable thing, regardless of form, received or to be received by a person for services rendered.

(7) "Compressor" means a machine or apparatus that converts different types of energy into the potential energy of gas pressure for displacement and compression of gaseous media to any higher-pressure values above atmospheric pressure and has a pressure ratio at full-load operating pressure greater than 1.3.

(8) "Dual-duct portable air conditioner" means a portable air conditioner that draws some or all of the condenser inlet air from outside the conditioned space through a duct attached to an adjustable window bracket, may draw additional condenser inlet air from the conditioned space, and discharges the condenser outlet air outside the conditioned space by means of a separate duct attached to an adjustable window bracket.

(9) "Dual-flush effective flush volume" means the average flush volume of two (2) reduced flushes and one full flush.

(10) "Dual-flush water closet" means a water closet incorporating a feature that allows the user to flush the water closet with either a reduced or a full volume of water.

(11) "Faucet" means a lavatory faucet, kitchen faucet, metering faucet, public lavatory faucet, or replacement aerator for a lavatory, public lavatory or kitchen faucet.

(12) "General service lamp" has the same meaning as set forth in the action published at 82 Fed. Reg. 7276, 7321-22 (January 19, 2017) and modified by the action published at 82 Fed. Reg. 7322, 7333 (January 19, 2017).

(13) "Hand-held shower" means a showerhead that can be held or fixed in place for the purpose of spraying water onto a bather and that is connected to a flexible hose.

(14) "High color rendering index (CRI) fluorescent lamp" means a fluorescent lamp with a color rendering index of eighty-seven (87) or greater that is not a compact fluorescent lamp.

(15) "Industrial air purifier" means an indoor air cleaning device manufactured, advertised, marketed, labeled, and used solely for industrial use that are marketed solely through industrial supply outlets or businesses and prominently labeled as "Solely for industrial use. Potential health hazard: emits ozone."

(16) "Metering faucet" means a fitting that, when turned on, will gradually shut itself off over a period of several seconds.

(17) "On demand" means the water cooler heats water as it is requested, which typically takes a few minutes to deliver.

(18) "Plumbing fixture" means an exchangeable device, which connects to a plumbing
system to deliver and drain away water and waste.

(19) "Portable air conditioner" means a portable encased assembly, other than a packaged terminal air conditioner, room air conditioner, or dehumidifier, that delivers cooled, conditioned air to an enclosed space, and is powered by single-phase electric current. It includes a source of refrigeration and may include additional means for air circulation and heating and may be a single-duct or a dual-duct portable air conditioner.

(20) "Portable electric spa" means a factory-built electric spa or hot tub which may or may not include any combination of integral controls, water heating or water circulating equipment.

(21) "Pressure regulator" means a device that maintains constant operating pressure immediately downstream from the device, given higher pressure upstream.

(22) "Public lavatory faucet" means a fitting intended to be installed in nonresidential bathrooms that are exposed to walk-in traffic.

(23) "Replacement aerator" means an aerator sold as a replacement, separate from the faucet to which it is intended to be attached.

(24) "Residential ventilating fan" means a ceiling, wall-mounted, or remotely mounted in-line fan designed to be used in a bathroom or utility room, whose purpose is to move air from inside the building to the outdoors.

(25) "Showerhead" means a device through which water is discharged for a shower bath and includes a hand-held showerhead but does not include a safety shower showerhead.

(26) "Single-duct portable air conditioner" means a portable air conditioner that draws all of the condenser inlet air from the conditioned space without the means of a duct and discharges the condenser outlet air outside the conditioned space through a single duct attached to an adjustable window bracket.

(27) "Spray sprinkler body" means the exterior case or shell of a sprinkler incorporating a means of connection to the piping system designed to convey water to a nozzle or orifice.

(28) "Storage-type" means thermally conditioned water is stored in a tank in the water cooler and is available instantaneously. Point-of-use, dry storage compartment, and bottled water coolers are included in this category.

(29) "Trough-type urinal" means a urinal designed for simultaneous use by two (2) or more persons.

(30) "Uninterruptible power supply" means a battery charger consisting of a combination of convertors, switches and energy storage devices (such as batteries), constituting a power system for maintaining continuity of load power in case of input power failure.
(31) "Urinal" means a plumbing fixture that receives only liquid body waste and conveys the waste through a trap into a drainage system.

(32) "Water closet" means a plumbing fixture having a water-containing receptor that receives liquid and solid body waste through an exposed integral trap into a drainage system.

(33) "Water cooler" means a freestanding device that consumes energy to cool or heat potable water:

(i) "Cold only units" dispense cold water only.

(ii) "Hot and cold units" dispense both hot and cold water. Some units also offer room-temperature water.

(iii) "Cook and cold units" dispense both cold and room-temperature water.


(a) The provisions of this chapter apply to:

(1) Air compressors;

(2) Air purifiers;

(3) Commercial dishwashers;

(4) Commercial fryers;

(5) Commercial steam cookers;

(6) Computers and computer monitors;

(7) Faucets;

(8) General service lamps;

(9) High CRI fluorescent lamps;

(10) Portable air conditioners;

(11) Portable electric spas;

(12) Residential ventilating fans;

(13) Showerheads;

(14) Spray sprinkler bodies;

(15) Uninterruptible power supplies;

(16) Urinals;

(17) Water closets;

(18) Water coolers; and

(19) Any other products as may be designated by the commissioner.

(b) The provisions of this chapter do not apply to:

(1) New products manufactured in the state and sold outside the state;

(2) New products manufactured outside the state and sold at wholesale inside the state for

(a) Not later than one year after the date of enactment of this chapter, the commissioner, in consultation with the Rhode Island Office of energy resources and the energy efficiency resource management council, shall adopt regulations, in accordance with the provisions of chapter 35 of title 42, establishing minimum efficiency standards for any types of new products set forth in § 39-27.1-5.

(b) The regulations shall provide for the following minimum efficiency standards:

(1) Air compressors that meet the twelve (12) criteria listed on page 350 to 351 of the "Energy Conservation Standards for Air Compressors" final rule issued by the U.S. Department of Energy on December 5, 2016 shall meet the requirements in Table 1 on page 352 following the instructions on page 353 and as measured in accordance with Appendix A to Subpart T of Part 431 of Title 10 of the Code of Federal Regulations "Uniform Test Method for Certain Air Compressors" as in effect on July 3, 2017.

(2) Air purifiers, except industrial air purifiers, shall meet the following requirements as measured in accordance with the ENERGY STAR Program Requirements Product Specification for Room Air Cleaners, Version 1.2:

   (i) Clean air delivery rate (CADR) for dust shall be fifty (50 ppb) or greater;
   (ii) CADR/Watt for dust shall be equal to or greater than two (2.0);
   (iii) For ozone-emitting models, measured ozone shall be less than or equal to fifty parts per billion (50 ppb); and,
   (iv) Standby power shall not exceed two watts (2w).

(3) Commercial dishwashers included in the scope of the ENERGY STAR Program Requirements Product Specification for Commercial Dishwashers, Version 2.0, shall meet the qualification criteria of that specification.

(4) Commercial fryers included in the scope of the ENERGY STAR Program Requirements Product Specification for Commercial Fryers, Version 2.0, shall meet the qualification criteria of that specification.

(5) Commercial steam cookers shall meet the requirements of the ENERGY STAR Program Requirements Product Specification for Commercial Steam Cookers, Version 1.2.

(6) Computers and computer monitors shall meet the requirements of § 1605.3(v) of Title 20 of the California Code of Regulations (C.C.R.) and compliance with those requirements shall
be as measured in accordance with test methods prescribed in § 1604(v) of those regulations.

(i) The rules shall define "computer" and "computer monitor" to have the same meaning as set forth in 20 C.C.R. § 1602(v).

(ii) The referenced portions of the C.C.R. shall be those adopted on or before the effective date of this chapter. However, the commissioner shall have authority to amend the rules so that the definitions of "computer" and "computer monitor" and the minimum efficiency standards for computers and computer monitors conform to subsequently adopted modifications to the referenced sections of the C.C.R.

(7) Faucets, except for metering faucets, shall meet the standards shown in this subsection when tested in accordance with 10 C.F.R. 430, Subpart B, Appendix S, and compliance with those requirements shall be the “Uniform Test Method for Measuring the Water Consumption of Faucets and Showerheads” as in effect on January 3, 2017.

(i) Lavatory faucets and replacement aerators shall not exceed a maximum flow rate of one and one-half gallons per minute (1.5 gpm) at sixty pounds per square inch (60 psi).

(ii) Residential kitchen faucets and replacement aerators shall not exceed a maximum flow rate of one and eight-tenths gallons per minute (1.8 gpm) at sixty pounds per square inch (60 psi), with optional temporary flow of two and two-tenths gallons per minute (2.2 gpm), provided they default to a maximum flow rate of one and eight-tenths gallons per minute (1.8 gpm) at sixty pounds per square inch (60 psi) after each use.

(iii) Public lavatory faucets and replacement aerators shall not exceed a maximum flow rate of five-tenths gallons per minute (0.5 gpm) at sixty pounds per square inch (60 psi).

(8) General service lamps shall meet or exceed a lamp efficacy of forty-five (45) lumens per watt, when tested in accordance with the applicable federal test procedures for general service lamps, prescribed in 10 C.F.R. § 430.23(gg) as in effect on January 3, 2017.

(9) High CRI fluorescent lamps shall meet the minimum efficacy requirements contained in 10 C.F.R. § 430.32(n)(4) as in effect on January 3, 2017, as measured in accordance with 10 C.F.R. § 430, Subpart B, Appendix R "Uniform Test Method for Measuring Average Lamp Efficacy (LE), Color Rendering Index (CRI), and Correlated Color Temperature (CCT) of Electric Lamps as in effect on January 3, 2017.

(10) Portable air conditioners shall have a Combined Energy Efficiency Ratio (CEER), as measured in accordance with 10 C.F.R. § 430, Subpart B, Appendix CC “Uniform Test Method for Measuring the Energy Consumption of Portable Air Conditioners as in effect on January 3, 2017, that is greater than or equal to:

SACC
1.04 x

(3.7117 x SACC^{0.6384})

where SACC is Seasonally Adjusted Cooling Capacity in Btu/h.

(11) Portable electric spas shall meet the requirements of the "American National Standard for Portable Electric Spa Energy Efficiency" (ANSI/APSP/ICC-14).

(12) Residential ventilating fans shall meet the qualification criteria of the ENERGY STAR Program Requirements Product Specification for Residential Ventilating Fans, Version 3.2.

(13) Showerheads shall not exceed a maximum flow rate of two gallons per minute (2.0 gpm) at eighty pounds per square inch (80 psi) when tested in accordance with 10 C.F.R. § 430, Subpart B, Appendix S and compliance with those requirements shall be the "Uniform Test Method for Measuring the Water Consumption of Faucets and Showerheads" as in effect on January 3, 2017.

(14) Spray sprinkler bodies that are not specifically excluded from the scope of the WaterSense Specification for Spray Sprinkler Bodies, Version 1.0, shall include an integral pressure regulator and shall meet the water efficiency and performance criteria and other requirements of that specification.

(15) Uninterruptible power supplies that utilize a NEMA 1-15P or 5-15P input plug and have an AC output shall have an average load adjusted efficiency that meets or exceed the values shown on page 193 of the pre-publication final rule "Energy Conservation Program: Energy Conservation Standards for Uninterruptible Power Supplies" issued by the U.S. Department of Energy on December 28, 2016, as measured in accordance with test procedures prescribed in 10 C.F.R. § 430, Subpart B, Appendix Y "Uniform Test Method for Measuring the Energy Consumption of Battery Chargers" as in effect on January 11, 2017.

(16) Urinals and water closets, other than those designed and marketed exclusively for use at prisons or mental health facilities, shall meet the standards shown in this chapter when tested in accordance with 10 C.F.R. § 430, Subpart B, Appendix T "Uniform Test Method for Measuring the Water Consumption of Water Closets and Urinals" as in effect on January 3, 2017 and water closets shall pass the waste extraction test for water closets (Section 7.10) of the American Society of Mechanical Engineers (ASME) A112.19.2/CSA B45.1-2013.

(i) Wall-mounted urinals, except for trough-type urinals, shall have a maximum flush volume of one-half (0.5) gallons per flush.

(ii) Floor-mounted urinals, except for trough-type urinals, shall have a maximum flush volume of one-half (0.5) gallons per flush.
(iii) Water closets, except for dual-flush tank-type water closets, shall have a maximum flush volume of 1.28 gallons per flush.

(iv) Dual-flush tank-type water closets shall have a maximum dual flush effective flush volume of 1.28 gallons per flush.

(17) Water coolers included in the scope of the ENERGY STAR Program Requirements Product Specification for Water Coolers, Version 2.0, shall have on mode with no water draw energy consumption less than or equal the following values as measured in accordance with the test requirements of that program:

(i) Sixteen hundredths kilowatt-hours (0.16 kwh) per day for cold-only units and cook and cold units;

(ii) Eighty-seven hundredths kilowatt-hours (0.87 kwh) per day for storage type hot and cold units; and

(iii) Eighteen hundredths kilowatt-hours (0.18 kwh) per day for on demand hot and cold units.


(a) On or after January 1, 2022, no new air purifier, commercial dishwasher, commercial fryer, commercial steam cooker, computer or computer monitor, faucet, high CRI fluorescent lamp, portable electric spa, residential ventilating fan, showerhead, spray sprinkler body, uninterruptible power supply, urinal, water closet, or water cooler may be sold or offered for sale, lease, or rent in the state unless the efficiency of the new product meets or exceeds the efficiency standards provided in § 39-27.1-6.

(b) No later than six (6) months from the date of enactment of this chapter, and as necessary thereafter, the commissioner shall determine which general service lamps are subject to federal preemption. On or after January 1, 2021, no general service lamp that is not subject to federal preemption may be sold or offered for sale, lease, or rent in the state unless the efficiency of the new product meets or exceeds the efficiency standards provided in § 39-27.1-6.

(c) On or after January 1, 2023, no new air compressor may be sold or offered for sale, lease, or rent in the state unless the efficiency of the new product meets or exceeds the efficiency standards provided in § 39-27.1-6.

(d) On or after February 1, 2023, no new portable air conditioner may be sold or offered for sale, lease, or rent in the state unless the efficiency of the new product meets or exceeds the efficiency standards provided in § 39-27.1-6.

(e) One year after the date upon which the sale or offering for sale of certain products becomes subject to the requirements of subsections (a), (b), (c), or (d) of this section, no such
products may be installed for compensation in the state unless the efficiency of the new product
meets or exceeds the efficiency standards provided in § 39-27.1-6.


The commissioner may adopt regulations, in accordance with the provisions of chapter
35 of title 42, to establish increased efficiency standards for the products listed or incorporated in
§ 39-27.1-5. The commissioner may also establish standards for products not specifically listed in
§ 39-27.1-5. In considering such new or amended standards, the commissioner, in consultation
with the Rhode Island office of energy resources and energy efficiency and resource management
council, shall set efficiency standards upon a determination that increased efficiency standards
would serve to promote energy or water conservation in the state and would be cost effective for
consumers who purchase and use such new products, provided that no new or increased
efficiency standards shall become effective within one year following the adoption of any
amended regulations establishing such increased efficiency standards.


(a) If any of the energy or water conservation standards issued or approved for
publication by the Office of the United States Secretary of Energy as of January 1, 2018, pursuant
to the Energy Policy and Conservation Act 10 C.F.R., Parts 430-431, are withdrawn, repealed, or
otherwise voided, the minimum energy or water efficiency level permitted for products
previously subject to federal energy or water conservation standards shall be the previously
applicable federal standards, and no such new products may be sold or offered for sale, lease or
rent in the state unless it meets or exceeds such standards.

(b) This section shall not apply to any federal energy or water conservation standard set
aside by a court upon the petition of a person who will be adversely affected, as provided in 42


(a) The manufacturers of products covered by this chapter shall test samples of their
products in accordance with the test procedures adopted pursuant to this chapter. The
commissioner may adopt updated test methods when new versions of test procedures become
available.

(b) Manufacturers of new products covered by § 39-27.1-5 shall certify to the
commissioner that such products are in compliance with the provisions of this chapter. Such
certifications shall be based on test results. The commissioner shall promulgate regulations
governing the certification of such products and shall coordinate with the certification programs
of other states and federal agencies with similar standards.
(c) Manufacturers of new products covered by § 39-27.1-5 shall identify each product offered for sale or installation in the state as in compliance with the provisions of this chapter by means of a mark, label, or tag on the product and packaging at the time of sale or installation. The commissioner shall promulgate regulations governing the identification of such products and packaging, which shall be coordinated to the greatest practical extent with the labeling programs of other states and federal agencies with equivalent efficiency standards. The commissioner shall allow the use of existing marks, labels, or tags, which connote compliance with the efficiency requirements of this chapter.

(d) The commissioner may test products covered by § 39-27.1-5. If products so tested are found not to be in compliance with the minimum efficiency standards established under § 39-27.1-5, the commissioner shall:

1. Charge the manufacturer of such product for the cost of product purchase and testing;

and

2. Make information available to the attorney general and the public on products found not to be in compliance with the standards.

(e) With prior notice and at reasonable and convenient hours, the commissioner may cause periodic inspections to be made of distributors or retailers of new products covered by § 39-27.1-4 in order to determine compliance with the provisions of this chapter. The commissioner shall also coordinate with the state building commissioner regarding inspections prior to occupancy of newly constructed buildings containing new products that are also covered by the 2012 IECC.

(f) The commissioner shall investigate complaints received concerning violations of this chapter and shall report the results of such investigations to the attorney general. The attorney general may institute proceedings to enforce the provisions of this chapter. Any manufacturer, distributor, or retailer, or any person who installs a product covered by this chapter for compensation, who violates any provision of this chapter, shall be issued a warning by the commissioner for any first violation and subject to a civil penalty of up to one hundred dollars ($100) for each offense. Repeat violations shall be subject to a civil penalty of not more than five hundred dollars ($500) for each offense. Each violation shall constitute a separate offense, and each day that such violation continues shall constitute a separate offense. Penalties assessed under this subsection are in addition to costs assessed under subsection (d) of this section.

(g) The commissioner may adopt such further regulations as necessary to ensure the proper implementation and enforcement of the provisions of this chapter.

The provisions of this chapter shall be severable, and if the application of any clause, sentence, paragraph, subdivision, section, or part of this chapter shall be adjudged by any court of competent jurisdiction to be invalid, such judgment shall not affect, impair, or invalidate the application of any other clause, sentence, paragraph, subdivision, section, or part of this chapter.

SECTION 2. This act shall take effect upon passage, and shall be construed to supersede the provisions of chapter 39 of title 27, "The Energy and Consumer Savings Act of 2005", but only to the extent that any products sold or installed in compliance with the provisions of chapter 39 of title 27 be replaced on or after July 1, 2021, with products that are in accordance with the provisions of this chapter.

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This act would establish minimum energy and water efficiency standards for appliances and specified equipment purchased or installed after July 1, 2021. This act would take effect upon passage, and would be construed to supersede the provisions of chapter 39 of title 27, "The Energy and Consumer Savings Act of 2005", but only to the extent that any products sold or installed in compliance with the provisions of chapter 39 of title 27 be replaced on or after July 1, 2021, with products that are in accordance with the provisions of this chapter.