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STATE OF RHODE ISLAND

IN GENERAL ASSEMBLY

JANUARY SESSION, A.D. 2014

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A N A C T

RELATING TO STATE AFFAIRS AND GOVERNMENT -- MINIMUM ENERGY AND
WATER EFFICIENCY STANDARDS

Introduced By: Representatives Handy, Williams, and Almeida

Date Introduced: March 04, 2014

Referred To: House Environment and Natural Resources

It is enacted by the General Assembly as follows:

1 SECTION 1. Title 42 of the General Laws entitled "STATE AFFAIRS AND
2 GOVERNMENT" is hereby amended by adding thereto the following chapter:

3 CHAPTER 140.5

4 MINIMUM ENERGY AND WATER EFFICIENCY STANDARDS

5 **42-140.5-1. General purpose.** -- This chapter establishes minimum efficiency standards
6 for certain products sold or installed in the state.

7 **42-140.5-2. Findings.** -- The legislature finds that:

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

11 (2) Such efficiency standards save energy and thus reduce pollution and other
12 environmental impacts associated with the production, distribution, and use of electricity and
13 natural gas.

14 (3) Such water efficiency standards save water and thus reduce the strain on the water
15 supply. Furthermore, improved water efficiency can reduce or delay the need for infrastructure
16 improvements.

17 (4) Such efficiency standards can make electricity systems more reliable by reducing the
18 strain on the electricity grid during peak demand periods. Furthermore, improved efficiency can

1 reduce or delay the need for new power plants, power transmission lines, and power distribution
2 system upgrades.

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

8 **42-140.5-3. Definitions.** – (a) As used in this chapter:

9 (1) The following definitions apply to battery charger systems:

10 (i) "Battery" or "battery pack" means an assembly of one or more rechargeable cells
11 intended to provide electrical energy to a product, and may be in one of the following forms:

12 (A) Detachable battery. A battery that is contained in a separate enclosure from the
13 product and is intended to be removed or disconnected from the product for recharging; or

14 (B) Integral battery. A battery that is contained within the product and is not removed
15 from the product for charging purposes.

16 (ii) "Battery charger system (BCS)" means a battery charger coupled with its battery or
17 batteries or battery chargers coupled with their batteries, which together are referred to as battery
18 charger systems. This term covers all rechargeable batteries or devices incorporating a
19 rechargeable battery and the chargers used with them. Battery charger systems include, but are
20 not limited to:

21 (A) Electronic devices with a battery that are normally charged from ac line voltage or dc
22 input voltage through an internal or external power supply and a dedicated battery charger;

23 (B) The battery and battery charger components of devices that are designed to run on
24 battery power during part or all of their operations;

25 (C) Dedicated battery systems primarily designed for electrical or emergency backup;
26 and

27 (D) Devices whose primary function is to charge batteries, along with the batteries they
28 are designed to charge. These units include chargers for power tool batteries and chargers for
29 automotive, AA, AAA, C, D, or 9 V rechargeable batteries, as well as chargers for batteries used
30 in larger industrial motive equipment and à la carte chargers.

31 (E) The charging circuitry of battery charger systems may or may not be located within
32 the housing of the end-use device itself. In many cases, the battery may be charged with a
33 dedicated external charger and power supply combination that is separate from the device that
34 runs on power from the battery.

1 (2) "Commissioner" means the commissioner of energy resources as defined in chapter
2 42-140.4.

3 (3) The following definitions apply to commercial dishwashers:

4 (i) "Chemical sanitizing (low temp) machine" means a warewashing machine that applies
5 potable water and a chemical sanitizing solution to the surfaces of wares to achieve sanitization.

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

9 (iii) "Hot water sanitizing (high temp) machine" means a warewashing machine that
10 applies potable hot water to the surfaces of wares to achieve sanitization.

11 (iv) "Multiple tank conveyor dishwasher" means a conveyor type machine that has one or
12 more tanks for wash water and one or more tanks for pumped rinse water, followed by a final
13 sanitizing rinse. This type of machine may include one or more pre-washing sections before the
14 washing section. Multiple tank conveyor dishwashers can be either chemical or hot water
15 sanitizing, with an internal or external booster heater for the latter.

16 (v) "Single tank conveyor dishwasher" means a warewashing machine that employs a
17 conveyor or similar mechanism to carry dishes through a series of wash and rinse sprays within
18 the machine. Specifically, a single tank conveyor machine has a tank for wash water followed by
19 a final sanitizing rinse and does not have a pumped rinse tank. This type of machine may include
20 a pre-washing section before the washing section. Single tank conveyor dishwashers can be either
21 chemical or hot water sanitizing, with an internal or external booster heater for the latter.

22 (vi) "Stationary rack, single tank, door type dishwasher" means a machine in which a
23 rack of dishes remains stationary within the machine while subjected to sequential wash and rinse
24 sprays. This definition also applies to machines in which the rack revolves on an axis during the
25 wash and rinse cycles. Subcategories of stationary rack, single tank, door type machines include:
26 single and multiple wash tank, double rack, pot, pan and utensil washers, chemical dump type and
27 hooded wash compartment ("hood type"). Stationary rack, single tank, door type models can be
28 either chemical or hot water sanitizing, with an internal or external booster heater for the latter.

29 (vii) "Under counter dishwasher" means a machine with an overall height of thirty-eight
30 inches (38") or less, in which a rack of dishes remains stationary within the machine while being
31 subjected to sequential wash and rinse sprays, is designed for wash cycles of ten (10) minutes or
32 less, and is designed to be installed under food preparation workspaces. Under counter
33 dishwashers can be either chemical or hot water sanitizing, with an internal booster heater for the
34 latter.

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

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

6 (6) The following definitions apply to high light output double-ended quartz halogen
7 lamps:

8 (i) "High light output double-ended quartz halogen lamp" means a lamp that:

9 (A) Is designed for general outdoor lighting purposes;

10 (B) Contains a tungsten filament;

11 (C) has a rated initial lumen value of greater than six thousand (6,000) and less than forty
12 thousand (40,000) lumens;

13 (D) Has at each end a recessed single contact, R7s base;

14 (E) Has a maximum overall length (MOL) between four (4) and eleven (11) inches;

15 (F) Has a nominal diameter less than three quarters (3/4) inch (T6);

16 (G) Is designed to be operated at a voltage not less than one hundred ten (110) volts and
17 not greater than two hundred (200) volts or is designed to be operated at a voltage between two
18 hundred thirty-five (235) volts and three hundred (300) volts;

19 (H) Is not a tubular quartz infrared heat lamp; and

20 (I) Is not a lamp marked and marketed as a stage and studio lamp with a rated life of five
21 hundred (500) hours or less.

22 (ii) "Tubular quartz infrared heat lamp" means a double-ended quartz halogen lamp that:

23 (A) Is marked and marketed as an infrared heat lamp; and

24 (B) Radiates predominately in the infrared radiation range and in which the visible
25 radiation is not of principle interest.

26 (6) "Lavatory faucet" means a plumbing fitting designed for installation at a washbowl or
27 basin in a room containing a water closet, and includes associated faucet accessories such as flow
28 restrictors, flow regulators, aerator devices, and laminar devices, except that such term does not
29 include fittings designed to be installed in non-residential bathrooms that are exposed to walk-in
30 traffic

31 (7) "Portable electric spa" means a factory-built electric spa or hot tub, supplied with
32 equipment for heating and circulating water.

33 (8) The following definitions apply to room air cleaners:

34 (i) "Room air cleaner" means an electric cord-connected, portable appliance with the

1 primary function of removing particulate matter from the air and which can be moved from room
2 to room.

3 (ii) "Combination product" means a room air cleaner that includes a secondary function,
4 other than air cleaning technology, within the same housing such as a humidifier or dehumidifier.

5 (iii) "Ozone generator" means a device intended to reduce or eliminate microorganisms
6 within a room solely by means of introducing ozone into the room environment.

7 (iv) "Clean air delivery rate (CADR)" means the measure of the delivery of specified,
8 particulate-free air produced by a household electric, cord-connected room air cleaner.

9 (v) "Standby mode" means the lowest power consumption mode which cannot be
10 switched off (influenced) by the user and that may persist for an indefinite time when an air
11 cleaner unit is connected to the main electricity supply and used in accordance with the
12 manufacturer's instructions.

13 (vi) "Standby power" means the average power in standby mode, measured in watts.

14 (8) "Urinal" means a plumbing fixture that receives only liquid body waste and conveys
15 the waste through a trap into a drainage system, except that such term does not include fixtures
16 designed for installation in prisons.

17 (9) "Water closet" means a plumbing fixture with a water-containing receptor that
18 receives liquid and solid body waste and upon actuation conveys the waste through an integral
19 trap into a drainage system, except that such term does not include fixtures designed for
20 installation in prisons.

21 **42-140.5-4. Scope.--** (a) The provisions of this chapter apply to the following types of
22 new products sold, offered for sale, or installed in the state:

23 (1) Battery charger systems, except those:

24 (i) Used to charge a motor vehicle that is powered by an electric motor drawing current
25 from rechargeable storage batteries, fuel cells, or other portable sources of electrical current, and
26 which may include a nonelectrical source of power designed to charge batteries and components
27 thereof. This exception does not apply to autoettes, electric personal assistive mobility devices,
28 golf carts, or low speed vehicles;

29 (ii) That are classified as Class II or Class III devices for human use under the Federal
30 Food, Drug, and Cosmetic Act and require U.S. Food and Drug Administration listing and
31 approval as a medical device;

32 (iii) Used to charge a battery or batteries in an illuminated exit sign;

33 (iv) With input that is three (3) phase of line-to-line three hundred (300) volts root mean
34 square or more and is designed for a stationary power application;

- 1 [\(v\) That are battery analyzers; or](#)
- 2 [\(vi\) That are voltage independent or voltage and frequency independent uninterruptible](#)
- 3 [power supplies as defined by IEC 62040-3 ed. 2.0 \(March 2011\);](#)
- 4 [\(2\) Commercial dishwashers in the following categories:](#)
- 5 [\(i\) Chemical sanitizing \(low temp\)](#)
- 6 [\(ii\) Hot water sanitizing \(high temp\);](#)
- 7 [\(iii\) Multiple tank conveyors;](#)
- 8 [\(iv\) Single tank conveyor;](#)
- 9 [\(v\) Stationary rack, single tank, door type; and](#)
- 10 [\(vi\) Under counter;](#)
- 11 [\(3\) High light output double-ended quartz halogen lamps;](#)
- 12 [\(4\) Lavatory faucets;](#)
- 13 [\(5\) Portable electric spas;](#)
- 14 [\(6\) Room air cleaners, except those that are combination products or ozone generators;](#)
- 15 [\(7\) Urinals;](#)
- 16 [\(8\) Water closets;](#)
- 17 [\(9\) Water coolers, including both bottled \(including compartment-type\) and bottle-less,](#)
- 18 [but excluding units that provide pressurized water; and](#)
- 19 [\(10\) Any other products as may be designated by the commissioner in accordance with §](#)
- 20 [42-140.5-7.](#)
- 21 [\(b\) The provisions of this chapter do not apply to:](#)
- 22 [\(1\) New products manufactured in the state and sold outside the state;](#)
- 23 [\(2\) New products manufactured outside the state and sold at wholesale inside the state for](#)
- 24 [final retail sale and installation outside the state;](#)
- 25 [\(3\) Products installed in mobile manufactured homes at the time of construction; or](#)
- 26 [\(4\) Products designed expressly for installation and use in recreational vehicles.](#)
- 27 **42-140.5-5. Standards.** – [\(a\) Not later than one year after the date of enactment of this](#)
- 28 [chapter, the commissioner establishing minimum efficiency standards for the types of new](#)
- 29 [products set forth in § 42-140.5-4.](#)
- 30 [\(b\) The regulations shall provide minimum efficiency standards for the following:](#)
- 31 [\(1\) Battery charger systems.](#)
- 32 [\(2\) Commercial dishwashers which shall meet the water consumption requirements of](#)
- 33 [Version 1.1 of the ENERGY STAR program product specifications for commercial dishwashers](#)
- 34 [in effect on October 11, 2007, as measured in accordance with the test methods prescribed in](#)

1 [Version 2.0 of the ENERGY STAR program product specifications for commercial dishwashers](#)
2 [in effect on February 1, 2013.](#)

3 [\(3\) High light output double-ended quartz halogen lamps shall have a minimum](#)
4 [efficiency of:](#)

5 [\(i\) Twenty-seven \(27\) lumens per watt for lamps with a minimum rated initial lumen](#)
6 [value greater than six thousand \(6,000\) and a maximum initial lumen value of fifteen thousand](#)
7 [\(15,000\); and](#)

8 [\(ii\) Thirty-four \(34\) lumens per watt for lamps with a rated initial lumen value greater](#)
9 [than fifteen thousand \(15,000\) and less than forty thousand \(40,000\); as measured in accordance](#)
10 [with IESNA LM-45-00, "Approved Method for Electrical and Photometric Measurements of](#)
11 [General Service Incandescent Filament Lamps."](#)

12 [\(4\) Lavatory faucets shall have a maximum water use of 1.5 gallons per minute when](#)
13 [tested at a flowing water pressure of sixty \(60\) pounds per square inch in accordance with the](#)
14 [flow rate test procedure prescribed in Appendix S to Subpart B of Part 430 of Title 10 of the](#)
15 [Code of Federal Regulations – "Uniform Test Method for Measuring the Water Consumption of](#)
16 [Faucets and Showerheads."](#)

17 [\(5\) Portable electric spas shall have a normalized standby power not greater than \$5\(V^{2/3}\)\$](#)
18 [watts, where V=the fill volume in gallons \(The \$2/3\$ is a superscript: means "V to the two-thirds](#)
19 [power"\).](#)

20 [\(6\) Room air cleaners shall meet the following requirements:](#)

21 [\(i\) Produce a minimum 50 CADR for dust;](#)

22 [\(ii\) Achieve calculated CADR/Watt equal to or greater than 2.0 CADR/Watt \(Dust\);](#)

23 [\(iii\) For ozone emitting models, measured ozone shall be less than or equal to fifty \(50\)](#)
24 [parts per billion \(ppb\);](#)

25 [\(iv\) Measured standby power shall be less than or equal to two \(2\) Watts; as measured in](#)
26 [accordance with the test criteria prescribed in Version 1.2 of the ENERGY STAR program](#)
27 [product specifications for room air cleaners in effect on July 1, 2004.](#)

28 [\(7\) Urinals:](#)

29 [\(i\) Urinals, except for floor mounted urinals, shall have a maximum water use of one](#)
30 [hundred twenty-five thousandths \(0.125\) gallons per flush when tested in accordance with the](#)
31 [water consumption test prescribed in Appendix T to Subpart B of Part 430 of Title 10 of the Code](#)
32 [of Federal Regulations – "Uniform Test Method for Measuring the Water Consumption of Water](#)
33 [Closets and Urinals."](#)

34 [\(ii\) Floor mounted urinals shall have a maximum water use of five tenths \(0.5\) gallons](#)

1 per flush when tested in accordance with the water consumption test prescribed in Appendix T to
2 Subpart B of Part 430 of Title 10 of the Code of Federal Regulations – "Uniform Test Method for
3 Measuring the Water Consumption of Water Closets and Urinals."

4 (8) Water Closets

5 (i) Water closets, except for dual flush tank-type water closets, shall have a maximum
6 water use of one and three tenths (1.3) gallons per flush when tested in accordance with the water
7 consumption test prescribed in Appendix T to Subpart B of Part 430 of Title 10 of the Code of
8 Federal Regulations – "Uniform Test Method for Measuring the Water Consumption of Water
9 Closets and Urinals."

10 (ii) Dual flush tank-type water closets shall have a maximum effective water use of one
11 and three tenths (1.3) gallons per flush when tested in accordance with the water consumption test
12 prescribed in Appendix T to Subpart B of Part 430 of Title 10 of the Code of Federal Regulations
13 – "Uniform Test Method for Measuring the Water Consumption of Water Closets and Urinals."

14 **42-140.5-6. Implementation.** – (a) On or after January 1, 2016, no battery charger
15 system, commercial dishwasher, lavatory faucet, high light output double-ended quartz halogen
16 lamp, portable electric spa, room air cleaner, urinal, or water closet may be sold or offered for
17 sale in the state unless the efficiency of the new product meets or exceeds the efficiency standards
18 set forth in the regulations adopted pursuant to § 42-140.5-5. Except that as to any battery charger
19 system for which § 42-140.5-5 requires compliance beginning on January 1, 2017, no such
20 battery charger system may be sold or offered for sale in the state on or after January 1, 2017,
21 unless it meets or exceeds the efficiency standards set forth in the regulations adopted pursuant to
22 § 42-140.5-5.

23 (b) One year after the date upon which the sale or offering for sale of certain products
24 becomes subject to the requirements of subsection (a) of this section, no such products may be
25 installed for compensation in the state unless the efficiency of the new product meets or exceeds
26 the efficiency standards set forth in the regulations adopted pursuant to § 42-140.5-5.

27 **42-140.5-7. New and revised standards.** – (a) The commissioner may adopt regulations,
28 to establish increased efficiency standards for the products listed in § 42-140.5-4. The
29 commissioner may also establish standards for products not specifically listed in § 42-140.5-4. In
30 considering such new or amended standards, the commissioner shall set efficiency standards upon
31 a determination that increased efficiency standards would serve to promote energy or water
32 conservation in the state and would be cost-effective for consumers who purchase and use such
33 new products, provided that no new or increased efficiency standards shall become effective
34 within one year following the adoption of any amended regulations establishing such increased

1 efficiency standards.

2 **42-140.5-8. Testing, certification, labeling and enforcement.** – (a) The manufacturers
3 of products covered by this chapter shall test samples of their products in accordance with the test
4 procedures adopted pursuant to this chapter or those specified in the state building code. The
5 commissioner shall adopt by rule, test procedures for determining the energy efficiency of the
6 products covered by § 42-140.5-4 if such procedures are not provided for in § 42-140.5-5 of this
7 chapter or in chapter 273 of title 23. The commissioner shall adopt U.S. Department of Energy
8 approved test methods, or in the absence of such test methods, other appropriate national or state
9 test methods. The commissioner may adopt updated test methods when new versions of test
10 procedures become available.

11 (b) Manufacturers of new products covered by § 42-140.5-4 shall certify to the
12 commissioner that such products are in compliance with the provisions of § 42-140.5-4. Such
13 certifications shall be based on test results. The commissioner shall promulgate regulations
14 governing the certification of such products and shall coordinate with the certification programs
15 of other states and federal agencies with similar standards.

16 (c) Manufacturers of new products covered by § 42-140.5-4 shall identify each product
17 offered for sale or installation in the state as in compliance with the provisions of this chapter by
18 means of a mark, label, or tag on the product and packaging at the time of sale or installation. The
19 commissioner shall promulgate regulations governing the identification of such products and
20 packaging, which shall be coordinated to the greatest practical extent with the labeling programs
21 of other states and federal agencies with equivalent efficiency standards. The commissioner shall
22 allow the use of existing marks, labels, or tags which connote compliance with the efficiency
23 requirements of this chapter.

24 (d) The commissioner may test products covered by § 42-140.5-4. If products so tested
25 are found not to be in compliance with the minimum efficiency standards established under § 42-
26 140.5-5, the commissioner shall:

27 (1) Charge the manufacturer of such product for the cost of product purchase and testing;
28 and

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

31 (e) With prior notice and at reasonable and convenient hours, the commissioner may
32 cause periodic inspections to be made of distributors or retailers of new products covered by § 42-
33 140.5-4 in order to determine compliance with the provisions of this chapter. The commissioner
34 shall also coordinate with the appropriate building inspector regarding inspections prior to

1 occupancy of newly constructed buildings containing new products that are also covered by
2 chapter 27-3 of title 23.

3 (f) The commissioner shall investigate complaints received concerning violations of this
4 chapter and shall report the results of such investigations to the attorney general. The attorney
5 general may institute proceedings to enforce the provisions of this chapter. Any manufacturer,
6 distributor, or retailer, or any person who installs a product covered by this chapter for
7 compensation, who violates any provision of this chapter shall be issued a warning by the
8 commissioner for any first violation. Repeat violations shall be subject to a civil penalty of not
9 more than two hundred fifty dollars (\$250). Each violation shall constitute a separate offense, and
10 each day that such violation continues shall constitute a separate offense. Penalties assessed under
11 this subsection are in addition to costs assessed under subsection (d) of this section.

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

14 **42-140.5-9. Severability of provisions. –** The provisions of this chapter shall be
15 severable and if the application of any clause, sentence, paragraph, subdivision, section or part of
16 this chapter shall be adjudged by any court of competent jurisdiction to be invalid, such judgment
17 shall not affect, impair, or invalidate the application of any other clause, sentence, paragraph,
18 subdivision, section or part of this chapter.

19 SECTION 2. This act shall take effect upon passage.

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EXPLANATION
BY THE LEGISLATIVE COUNCIL
OF

A N A C T

RELATING TO STATE AFFAIRS AND GOVERNMENT -- MINIMUM ENERGY AND
WATER EFFICIENCY STANDARDS

1 This act would set specific, up-to-date standards for selected commercial and residential
2 products. These energy and water efficiency standards are based on ENERGY STAR
3 specifications or on standards adopted by various states.

4 This act would take effect upon passage.

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