HOUSE DOCKET, NO. 3395 FILED ON: 1/20/2017

HOUSE . . . . . No. 3404

The Commonwealth of Massachusetts

PRESENTED BY:

Frank I. Smizik

To the Honorable Senate and House of Representatives of the Commonwealth of Massachusetts in General Court assembled:

The undersigned legislators and/or citizens respectfully petition for the adoption of the accompanying bill:

An Act relative to expanding resource efficiency in the Commonwealth.

PETITION OF:

NAME:	DISTRICT/ADDRESS:
Frank I. Smizik	*15th Norfolk*
James B. Eldridge	*Middlesex and Worcester*
Marjorie C. Decker	*25th Middlesex*
John W. Scibak	*2nd Hampshire*
Josh S. Cutler	*6th Plymouth*
Michael D. Brady	*Second Plymouth and Bristol*
Solomon Goldstein-Rose	*3rd Hampshire*
Paul R. Heroux	*2nd Bristol*

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HOUSE . . . . . No. 3404

By Mr. Smizik of Brookline, a petition (accompanied by bill, House, No. 3404) of Frank I. Smizik and others for legislation to promote efficiency in the use of certain natural resources. Telecommunications, Utilities and Energy.

[SIMILAR MATTER FILED IN PREVIOUS SESSION
SEE HOUSE, NO. *755* OF 2015-2016.]

The Commonwealth of Massachusetts

In the One Hundred and Ninetieth General Court
(2017-2018)

An Act relative to expanding resource efficiency in the Commonwealth.

Be it enacted by the Senate and House of Representatives in General Court assembled, and by the authority of the same, as follows:

SECTION 1. Section 2 of chapter 25B, as so appearing in the 2014 Official Edition, is hereby amended by inserting after the definition of "Central furnace" the following definitions:-

"Color rendering index" or "CRI" means the measure of the degree of color-shift objects undergo when illuminated by a light source as compared with the color of those same objects when illuminated by a reference source of comparable color temperature.

"Commercial hot-food holding cabinet", a heated, fully-enclosed compartment with one or more solid or glass doors designed to maintain the temperature of hot food that has been cooked using a separate appliance. 'Commercial hot food holding cabinet' does not include heated glass merchandizing cabinets, drawer warmers, or cook-and-hold appliances.

SECTION 2. Said section 2 of chapter 25B, as so appearing, is hereby further amended by inserting after the definition of "Compensation" the following definitions:-

"Computer" means a device that performs logical operations and processes data. A computer includes both stationary and portable units and includes a desktop computer, a portable all-in-one, a notebook computer, a mobile gaming system, a high-expandability computer, a small-scale server, a thin client, and a workstation. Although a computer is capable of using input devices and displays, such devices are not required to be included with the computer when the computer is shipped. A computer is composed of, at a minimum:

(1) a central processing unit (CPU) to perform operations or, if no CPU is present, then the device must function as a client gateway to a server, and the server acts as a computational CPU;

(2) ability to support user input devices such as a keyboard, mouse, or touch pad; and

(3) an integrated display screen or the ability to support an external display screen to output information.

"Computer monitor" means an analog or digital device of size greater than or equal to 17 inches and less than or equal to 61 inches, that has a pixel density of greater than 5,000 pixels per square inch, and that is designed primarily for the display of computer-generated signals for viewing by one person in a desk-based environment. A computer monitor is composed of a display screen and associated electronics. A computer monitor does not include:

(1) displays with integrated or replaceable batteries designed to support primary operation without AC mains or external DC power (e.g., electronic readers, mobile phones, portable tablets, battery-powered digital picture frames); and

(2) a television or signage display.

"Deep-dimming fluorescent lamp ballast" means a fluorescent ballast that is capable of operating lamps in dimmed operating modes at any number of levels at or below 50% of full output. The term shall only apply to lamp ballasts designed to operate one, two, three, or four T5 or T8 4-foot linear or U-shape fluorescent lamps.

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

"Dual flush water closet", a tank-type water closet incorporating a feature that allows the user to flush the water closet with either a reduced or a full volume of water.

SECTION 3. Said section 2 of chapter 25B, as so appearing, is hereby further amended by inserting after the definition of "Electricity Ratio" the following definitions:-

"Faucet" means a lavatory faucet, kitchen faucet, metering faucet, or replacement aerator for a lavatory or kitchen faucet.

"Flow rate" means the rate of water flow of a plumbing fitting.

"Fluorescent lamp" means a low-pressure mercury electric-discharge source in which a fluorescing coating transforms some of the ultraviolet energy generated by the mercury discharge into light, and includes only the following:

(1) Any straight-shaped lamp (commonly referred to as 4-foot medium bipin lamps) with medium bipin bases of nominal overall length of 48 inches and rated wattage of 25 or more.

SECTION 4. Said section 2 of chapter 25B, as so appearing, is hereby further amended by inserting after the definition of "F96T12 Lamp" the following definitions:-

"General service lamp" means a lamp that has an ANSI base; is able to operate at a voltage of 12 volts or 24 volts, at or between 100 to 130 volts, at or between 220 to 240 volts, or of 277 volts for integrated lamps, or is able to operate at any voltage for non-integrated lamps; has an initial lumen output of greater than or equal to 310 lumens (or 232 lumens for modified spectrum general service incandescent lamps) and less than or equal to 3,300 lumens; is not a light fixture; is not an LED downlight retrofit kit; and is used in general lighting applications. General service lamps include, but are not limited to, general service incandescent lamps, compact fluorescent lamps, general service light-emitting diode lamps, and general service organic light-emitting diode lamps. General service lamps do not include:

(1) Appliance lamps;

(2) Black light lamps;

(3) Bug lamps;

(4) Colored lamps;

(5) G shape lamps with a diameter of 5 inches or more as defined in ANSI C79.1–2002;

(6) General service fluorescent lamps;

(7) High intensity discharge lamps;

(8) Infrared lamps;

(9) J, JC, JCD, JCS, JCV, JCX, JD, JS, and JT shape lamps that do not have Edison screw bases;

(10) Lamps that have a wedge base or prefocus base;

(11) Left-hand thread lamps;

(12) Marine lamps;

(13) Marine signal service lamps;

(14) Mine service lamps;

(15) MR shape lamps that have a first number symbol equal to 16 (diameter equal to 2 inches) as defined in ANSI C79.1–2002, operate at 12 volts, and have a lumen output greater than or equal to 800;

(16) Other fluorescent lamps;

(17) Plant light lamps;

(18) R20 short lamps;

(19) Reflector lamps that have a first number symbol less than 16 (diameter less than 2 inches) as defined in ANSI C79.1–2002 and that do not have E26/E24, E26d, E26/50x39, E26/53x39, E29/28, E29/53x39, E39, E39d, EP39, or EX39 bases;

(20) S shape or G shape lamps that have a first number symbol less than or equal to 12.5 (diameter less than or equal to 1.5625 inches) as defined in ANSI C79.1–2002;

(21) Sign service lamps;

(22) Silver bowl lamps;

(23) Showcase lamps;

(24) Specialty MR lamps;

(25) T shape lamps that have a first number symbol less than or equal to 8 (diameter less than or equal to 1 inch) as defined in ANSI C79.1–2002, nominal overall length less than 12 inches, and that are not compact fluorescent lamps (as defined in this section);

(26) Traffic signal lamps;

"High color rendering index fluorescent lamp" means a fluorescent lamp with a color rendering index of 87 or greater.

SECTION 5. Said section 2 of chapter 25B, as so appearing, is hereby further amended by inserting after the definition of "New appliance" the following definitions:-

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

"On mode with no water draw" means a test that records the 24-hour energy consumption of a water cooler with no water drawn during the test period.

"Plumbing fitting" means a device that controls and guides the flow of water in a supply system.

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

"Portable electric spa", a factory-built electric spa or hot tub, supplied with equipment for heating and circulating water.

SECTION 6. Said section 2 of chapter 25B, as so appearing, is hereby further amended by inserting after the definition of "Probe-start metal halide ballast" the following definition:-

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

SECTION 7. Said section 2 of chapter 25B, as so appearing, is hereby further amended by inserting after the definition of "Refrigerator-freezer" the following definitions:-

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

SECTION 8. Said section 2 of chapter 25B, as so appearing, is hereby further amended by inserting after the definition of "Residential furnace or boiler" the following definition:-

"Showerhead" means a device through which water is discharged for a shower bath and includes a body sprayer and handheld showerhead, but does not include a safety showerhead.

SECTION 9. Said section 2 of chapter 25B, as so appearing, is hereby further amended by inserting after the definition of "Single-voltage external AC to DC power supply" the following definitions:-

"Small-diameter directional lamp" means a lamp that meets all of the following criteria:

(1) Capable of operation at 12 volts, 24 volts, or 120 volts;

(2) Has an ANSI ANSLG C81.61–2009 (R2014) compliant pin base or E26 base;

(3) Is a non-tubular directional lamp with a diameter of less than or equal to 2.25 inches;

(4) Has a lumen output of less than or equal to 850 lumens or has a wattage of 75 watts or less; and

(5) Has a rated life greater than 300 hours.

(6) Small-diameter directional lamp includes incandescent filament, LED, and any other lighting technology.

(7) Is not a "general service lamp."

"Standby power", the average power in standby mode, measured in Watts.

SECTION 10. Said section 2 of chapter 25B, as so appearing, is hereby further amended by inserting after the definition of "State plumbing code" the following definition:-

"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.

SECTION 11. Said section 2 of chapter 25B, as so appearing, is hereby further amended by inserting after the definition of "Transformer" the following definitions:-

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

"Urinal", a plumbing fixture that receives only liquid body waste and conveys the waste through a trap into a drainage system.

"Water closet", a plumbing fixture with a water-containing receptor that receives liquid and solid body waste and upon actuation conveys the waste through an exposed integral trap into a drainage system.

"Water cooler", a freestanding (i.e., not wall mounted, under sink, or otherwise building integrated) device that consumes energy to cool and/or heat potable water.

(1) 'Cold only' units dispense cold water.

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

(3) 'Cook and cold units' dispense both cold and room-temperature water.

SECTION 12. Said section 2 of chapter 25B, as so appearing, is hereby further amended by inserting after the definition of "Water heater" the following definitions:-

"Water use" means the quantity of water flowing through a showerhead, faucet, water closet, or urinal at point of use.

SECTION 13. Section 3 of chapter 25B of the General Laws, as so appearing, is hereby amended by inserting after subsection (j) the following 10 subsections:-

(k) commercial hot food holding cabinets.

(l) computers and computer monitors

(m) deep-dimming fluorescent lamp ballasts

(n) general service lamps

(o) high CRI fluorescent lamps

(p) plumbing fittings

(q) plumbing fixtures

(r) portable electric spas.

(s) small-diameter directional lamps

(t) water coolers.

SECTION 14. Section 5 of said chapter 25B of the General Laws, as so appearing, is hereby amended by striking out the words "clauses (f) to (s)" in line 23 and inserting in place thereof the words "clauses (f) to (t)".

SECTION 15. Said section 5 of chapter 25B of the General Laws, as so appearing, is hereby amended by inserting the following subsections:-

(6) Commercial hot-food holding cabinets with an interior volume of 8 cubic feet or greater shall have a maximum idle energy rate of 40 watts per cubic foot of interior volume, as determined by the "idle energy rate-dry test" in ASTM Standard F2140-11, "Test Method for the Performance of Hot Food Holding Cabinets," published by ASTM International. Interior volume shall be measured as prescribed in Version 2.0 of the ENERGY STAR program product specifications for commercial hot-food holding cabinets on which took effect on October 1, 2011.

(7) Computers and computer monitors shall meet the requirements of Section 1605.3 of Title 20 of the California Code of Regulations as adopted on December 14, 2016 as measured in accordance with test methods prescribed in Section 1604 of those regulations.

(8) Deep-dimming fluorescent lamp ballasts shall meet the requirements of Section 1605.3 of Title 20 of the California Code of Regulations as in effect on January 3, 2017 as measured in accordance with test methods prescribed in Section 1604 of those regulations.

(9) General service lamps shall meet or exceed a lamp efficacy of 45 lumens per watt, when tested in accordance with the applicable federal test methods for general service lamps, prescribed in Appendices R, W, BB, and DD to Subpart B of Part 430 of Title 10 of the Code of Federal Regulations as in effect on January 3, 2017.

(10) High CRI fluorescent lamps shall meet the following requirements:

(1) The minimum average lamp efficacy (lumens/watt) of high CRI fluorescent lamps with a correlated color temperature less than or equal to 4,500 K shall meet or exceed 92.4; and

(2) The minimum average lamp efficacy (lumens/watt) of high CRI fluorescent lamps with a correlated color temperature greater than 4,500 K and less than or equal to 7,000 K shall meet or exceed 88.7;

when tested in accordance with the test procedure prescribed in Appendix R to Subpart B of Part 430 of Title 10 of the Code of Federal Regulations—"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:

(11) Plumbing fittings shall meet the following requirements:

(1) The flow rate of lavatory faucets and replacement aerators shall not be greater than 1.2 gpm at 60 pounds per square inch (psi). For sprayheads with independently controlled orifices and manual controls, the maximum flow rate of each orifice that manually turns on or off shall not exceed the maximum flow rate for a lavatory faucet. For sprayheads with collectively controlled orifices and manual controls, the maximum flow rate of a sprayhead that manually turns on or off shall be the product of (a) the maximum flow rate for a lavatory faucet and (b) the number of component lavatories (rim space of the lavatory in inches (millimeters) divided by 20 inches [508 millimeters]);

(2) The flow rate of kitchen faucets and replacement aerators shall not be greater than 1.8 gpm with optional temporary flow of 2.2 gpm at 60 psi; and

(3) The flow rate of public lavatory faucets and replacement aerators shall not be greater than 0.5 gpm at 60 psi;

when tested in accordance with the flow rate test procedure prescribed in Appendix S to Subpart B of Part 430 of Title 10 of the Code of Federal Regulations—"Uniform Test Method for Measuring the Water Consumption of Faucets and Showerheads" as in effect on January 3, 2017.

(4) Showerheads shall meet:

(a) The U.S. EPA WaterSense specifications for showerheads, Version 1.0, which took effect on February 9, 2010.

(b) As measured in accordance with the test criteria prescribed in the WaterSense specifications for showerheads, Version 1.0 which took effect on February 9, 2010

(12) Plumbing fixtures shall meet the following requirements:

(1) The water consumption of urinals and water closets, other than those designed and marketed exclusively for use at prisons or mental health care facilities, shall be no greater than the values shown in items (1)(b)(i) through (1)(b)(iv) when tested in accordance with the:

(a) Water consumption test prescribed in Appendix T to Subpart B of Part 430 of Title 10 of the Code of Federal Regulations—"Uniform Test Method for Measuring the Water Consumption of Water Closets and Urinals"—as in effect on January 3, 2017.

(b) Waste extraction test for water closets (Section 7.10) of ASME A112.19.2/CSA B45.1-2013.

(i) Trough-type urinals shall have a maximum gallons per flush of:

Trough length (in inches)

16

(ii) Wall-mounted urinals shall have a maximum flush volume of 0.125 gallons per flush. Other urinals shall have a maximum flush volume of 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 effective flush volume of 1.28 gallons per flush.

(13) Portable electric spas shall meet the requirements of the "American National Standard for Portable Electric Spa Energy Efficiency" (ANSI/APSP/ICC-14 2014) as approved on September 12, 2014.

(14) Small diameter directional lamps must have a rated life of 25,000 hours or greater and meet one of the following requirements:

(1) have luminous efficacy of at least 80 lumens per watt.

(2) have a minimum luminous efficacy of 70 lumens per watt or greater and a minimum compliance score of 165 or greater, where compliance is calculated as the sum of the luminous efficacy and CRI.

When tested in accordance with the test methods in Table K-1 of the California Code of Regulations, Section 1604 as in effect on January 3, 2017

(15) Water coolers shall have on mode with no water draw energy consumption less than or equal to:

(1) 0.16 kilowatt-hours per day for cold-only and cook and cold units

(2) 0.87 kilowatt-hours per day for hot and cold units—storage type; and

(3) 0.18 kilowatt-hours per day for hot and cold units—on demand,

as measured in accordance with the test criteria prescribed in Version 2.0 of the ENERGY STAR program product specifications for water coolers which took effect on February 1, 2014.

SECTION 16. Said section 5 of said chapter 25B of the General Laws, as so appearing, is hereby further amended by inserting, in line 78, after the figure "2008" the following: -

"On or after January 1, 2019, no commercial hot-food holding cabinet, deep-dimming fluorescent ballast, lavatory faucet, kitchen faucet, public lavatory faucet, portable electric spa, replacement aerator, showerhead, urinal, water closet, water cooler, or high CRI fluorescent lamp may be sold or offered for sale in the state unless the efficiency of the new product meets or exceeds the efficiency standards set forth in the regulations adopted pursuant to this section. On or after July 1, 2019, no computer or computer monitor may be sold or offered for sale in the state unless the efficiency of the new product meets or exceeds the efficiency standards set forth in the regulations adopted pursuant to this section. On or after January 1, 2020, no small-diameter directional lamp or general service lamp may be sold or offered for sale in the state unless the efficiency of the new product meets or exceeds the efficiency standards set forth in the regulations adopted pursuant to this section."

SECTION 17. Section 9 of said chapter 25B of the General Laws, as so appearing, is hereby amended by inserting after the first paragraph the following paragraph:-

"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 19, 2017 pursuant to the Energy Policy and Conservation Act (10 C.F.R. §§ 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 product may be sold or offered for sale in the state unless it meets or exceeds such standards. This paragraph 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 U.S.C. § 6306(b)."