

# HOUSE . . . . . No. 4551

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## The Commonwealth of Massachusetts

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HOUSE OF REPRESENTATIVES, March 12, 2020.

The committee on Telecommunications, Utilities and Energy, to whom was referred the petition (accompanied by bill, House, No. 2832) of Josh S. Cutler and others relative to energy savings efficiency, so called Energy SAVE, reports recommending that the accompanying bill (House, No. 4551) ought to pass.

For the committee,

THOMAS A. GOLDEN, JR..

**HOUSE . . . . . No. 4551**

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**The Commonwealth of Massachusetts**

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**In the One Hundred and Ninety-First General Court  
(2019-2020)**  
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An Act relative to Energy Savings Efficiency (Energy SAVE).

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

1           SECTION 1. Section 2 of chapter 25B of the General Laws, as appearing in the 2016  
2 Official Edition, is hereby amended by inserting before the definition of “Ballast” the following  
3 definition:-

4           SECTION 2. Section 2 of chapter 25B of the General Laws, as appearing in the 2016  
5 Official Edition, is hereby amended by inserting after the definition of “Central furnace” the  
6 following 7 definitions:-

7           “Color rendering index” or “CRI”, the measure of the degree of color-shift objects  
8 undergo when illuminated by a light source as compared to the color of those same objects when  
9 illuminated by a reference source of comparable color temperature.

10          “Commercial hot-food holding cabinet”, a heated, fully-enclosed compartment with 1 or  
11 more solid or transparent doors designed to maintain the temperature of hot food that has been  
12 cooked using a separate appliance. A commercial hot-food holding cabinet shall not include  
13 heated glass merchandizing cabinets, drawer warmers or cook-and-hold appliances.

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

17           “Commercial fryer” an appliance, including a cooking vessel, in which oil is placed to  
18 such a depth that the cooking food is essentially supported by displacement of the cooking fluid  
19 rather than by the bottom of the vessel. Heat is delivered to the cooking fluid by means of an  
20 immersed electric element of band-wrapped vessel (electric fryers) or by heat transfer from gas  
21 burners through either the walls of the fryer or through tubes passing through the cooking fluid  
22 (gas fryers).

23           “Commercial oven” means a chamber designed for heating, roasting, or baking food by  
24 conduction, convection, radiation, and/or electromagnetic energy

25           “Commercial steam cooker,” also known as “compartment steamer,” a device with one or  
26 more food-steaming compartments in which the energy in the steam is transferred to the food by  
27 direct contact. Models may include countertop models, wall-mounted models, and floor models  
28 mounted on a stand, pedestal, or cabinet-style base. SECTION 3. Said section 2 of said chapter  
29 25B, as so appearing, is hereby further amended by inserting after the definition of

30 “Compensation” the following 37 definitions:-

31           “Dual-flush effective flush volume”, the average flush volume of 2 reduced flushes and 1  
32 full flush.

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

35           “Electric vehicle supply equipment” means the conductors, including the ungrounded,  
36 grounded, and equipment grounding conductors, the electric vehicle connectors, attachment  
37 plugs, and all other fittings, devices, power outlets, or apparatuses installed specifically for the  
38 purpose of delivering energy from the premises wiring to the electric vehicle. Charging cords  
39 with NEMA 5-15P and NEMA 5-20P attachment plugs are considered electric vehicle supply  
40 equipment. Excludes conductors, connectors, and fittings that are part of a vehicle.

41           SECTION 4. Said section 2 of said chapter 25B, as so appearing, is hereby further  
42 amended by striking out the definition of “High-intensity discharge lamp”.

43           SECTION 5. Said section 2 of said chapter 25B, as so appearing, is hereby further  
44 amended by inserting after the definition of “Electricity Ratio (ER)” the following 32  
45 definitions:-

46           “Faucet”, a lavatory faucet, kitchen faucet, metering faucet, public lavatory faucet, or  
47 replacement aerator for a lavatory or kitchen faucet.

48           “Flow rate”, the rate of water flow of a plumbing fitting.

49           SECTION 6. Said section 2 of said chapter 25B, as so appearing, is hereby further  
50 amended by inserting after the definition of “F96T12 Lamp” the following 53 definitions:-

51           “General service lamp” has the same meaning as set forth in 10 CFR 430.2.

52           “State-regulated general service lamp” includes the following:

53           (1) Shatter-resistant incandescent lamps, 3-way incandescent lamps and high lumen  
54 output incandescent lamps rated at more than 2600 lumens or, in the case of a modified spectrum  
55 lamp, more than 1950 lumens, and less than or equal to 3,300 lumens.

- 56 (2) Incandescent reflector lamps that are:
- 57 (a) ER30, BR30, BR40, or ER40 lamps rated at 50 Watts or less;
- 58 (b) BR30, BR40, or ER40 lamps rated at 65 watts;
- 59 (c) R20 lamps rated at 45 watts or less.
- 60 (3) Incandescent lamps that are:"
- 61 (a) T shape lamps rated at  $\leq 40$  Watts or  $\geq 10$  inches in length;
- 62 (b) B, BA, CA, F, G-16½, G-25, G-30 and S shape lamps;
- 63 (c) M-14 lamps rated at  $\leq 40$  Watts.

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

66 "High color rendering index fluorescent lamp", a fluorescent lamp with a color rendering  
67 index of 87 or greater that is not a compact fluorescent lamp.

68 "Metering faucet", a fitting that, when turned on, will gradually shut itself off over a  
69 period of several seconds.

70 SECTION 7. Said section 2 of said chapter 25B, as so appearing, is hereby further  
71 amended by inserting after the definition of "New appliance" the following 46 definitions:-

72 "On demand", when the water cooler heats water as it is requested.

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

75 “Plumbing fixture”, an exchangeable device, which connects to a plumbing system to  
76 deliver and drain away water and waste.

77 “Portable electric spa”, a factory-built electric spa or hot tub which may or may not  
78 include any combination of integral controls, water heating or water circulating equipment.

79 SECTION 8. Said section 2 of said chapter 25B, as so appearing, is hereby further  
80 amended by inserting after the definition of “Probe-start metal halide ballast” the following  
81 definition:-

82 “Public lavatory faucet”, a fitting intended to be installed in nonresidential bathrooms  
83 that are accessible to walk-in traffic.

84 SECTION 9. Said section 2 of said chapter 25B, as so appearing, is hereby further  
85 amended by inserting after the definition of “Refrigerator-freezer” the following definition:-

86 “Replacement aerator”, an aerator sold as a replacement, separate from the faucet to  
87 which it is intended to be attached.

88 SECTION 10. Said section 2 of said chapter 25B, as so appearing, is hereby further  
89 amended by inserting after the definition of “Residential furnace or boiler” the following two  
90 definitions:-

91 “Residential ventilating fan”, a ceiling, wall-mounted, or remotely mounted in-line fan  
92 designed to be used in a bathroom or utility room, whose purpose is to move air from inside the  
93 building to the outdoors.

94 “Showerhead”, a device through which water is discharged for a shower bath and  
95 includes a handheld showerhead, but does not include a safety showerhead.

96 SECTION 11. Said section 2 of said chapter 25B, as so appearing, is hereby further  
97 amended by inserting after the definition of “Single-voltage external AC to DC power supply”  
98 the following 2 definitions:-

99 “Standby power”, the average power in standby mode, measured in watts.

100 “Spray sprinkler body” the exterior case or shell of a sprinkler incorporating a means of  
101 connection to the piping system designed to convey water to a nozzle or orifice.

102 SECTION 12. Said section 2 of said chapter 25B, as so appearing, is hereby further  
103 amended by inserting after the definition of “State plumbing code” the following definition:-

104 “Storage-type”, thermally conditioned water that is stored in a tank in the water cooler  
105 and is available instantaneously, including, but not limited to, point of use, dry storage  
106 compartment and bottled water coolers.

107 SECTION 13. Said section 2 of said chapter 25B, as so appearing, is hereby further  
108 amended by inserting after the definition of “Transformer” the following 45 definitions:-

109 “Trough-type urinal”, a urinal designed for simultaneous use by 2 or more persons.

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

112 “Water closet”, a plumbing fixture with a water-containing receptor that receives liquid  
113 and solid body waste through an exposed integral trap into a drainage system.

114 “Water cooler”, a freestanding device that consumes energy to cool or heat potable water;  
115 provided however, that such device is not wall-mounted, under-sink or otherwise building  
116 integrated.

117 SECTION 14. Said section 2 of said chapter 25B, as so appearing, is hereby further  
118 amended by inserting after the definition of “Water heater” the following definition:-

119 “Water use”, the quantity of water flowing through a showerhead, faucet, water closet or  
120 urinal at point of use.

121 SECTION 15. Section 3 of said chapter 25B, as so appearing, is hereby amended by  
122 inserting after clause (j) the following clauses:-

123 (k) commercial hot-food holding cabinets.

124 (l) computers and computer monitors.

125 (m) state-regulated general service lamps.

126 (n) high CRI fluorescent lamps.

127 (o) plumbing fittings.

128 (p) plumbing fixtures.

129 (q) portable electric spas.

130 (r) water coolers.

131 (s) residential ventilating fans

132 (t) commercial ovens



- 133 (u) commercial dishwashers
- 134 (v) commercial fryers
- 135 (w) commercial steam cookers
- 136 (x) spray sprinkler bodies
- 137 (w) electric vehicle supply equipment

138 SECTION 16. Section 5 of said chapter 25B, as so appearing, is hereby amended by  
139 striking out the words, in line 24, “clauses (f) to (s)” and inserting in place thereof the following  
140 words:- clauses (f) to (w).

141 SECTION 17. The third paragraph of said section 5 of said chapter 25B, as so appearing,  
142 is hereby amended by adding after clause (5) the following clauses:-

143 (6) Commercial hot-food holding cabinets shall meet the qualification criteria of the  
144 ENERGY STAR program product specifications for commercial hot-food holding cabinets,  
145 Version 2.0.

146 (7) Computers and computer monitors shall meet the requirements of section 1605.3 of  
147 Title 20 of the California Code of Regulations, as in effect on the date of enactment of this Act,  
148 as measured in accordance with test methods prescribed in section 1604 of those regulations.

149 1) The rules shall define “computer” and “computer monitor” to have the same  
150 meaning as set forth in 20 C.C.R. § 1602(v).

151 2) The referenced portions of the C.C.R. shall be those adopted on or before the  
152 effective date of this act. However, the commissioner shall have authority to amend the rules so

153 that the definitions of “computer” and “computer monitor” and the minimum efficiency  
154 standards for computers and computer monitors conform to subsequently adopted modifications  
155 to the referenced sections of the C.C.R.

156 (8) State-regulated general service lamps shall meet or exceed a lamp efficacy of 45  
157 lumens per watt, when tested in accordance with the applicable federal test procedures for  
158 general service lamps, prescribed in Section 430.23 (gg) of Title 10 of the Code of Federal  
159 Regulations.

160 (9) High CRI, fluorescent lamps shall meet the minimum efficiency requirements  
161 contained in Section 430.32(n)(4) of Title 10 of the Code of Federal Regulations as in effect on  
162 January 3, 2019, when tested in accordance with the test procedure prescribed in Appendix R to  
163 Subpart B of Part 430 of Title 10 of the Code of Federal Regulations as in effect on January 3,  
164 2019:

165 (10) Plumbing fittings shall meet the following requirements:

166 (a) When tested in accordance with the flow rate test procedure prescribed in Appendix S  
167 to Subpart B of Part 430 of Title 10 of the Code of Federal Regulations: the flow rate of lavatory  
168 faucets and replacement aerators shall not be greater than 1.5 gallons per minute (hereafter  
169 referred to as gpm) at 60 pounds per square inch (hereafter referred to as psi); for sprayheads  
170 with independently controlled orifices and manual controls, the maximum flow rate of each  
171 orifice that manually turns on or off shall not exceed the maximum flow rate for a lavatory  
172 faucet; and for sprayheads with collectively controlled orifices and manual controls, the  
173 maximum flow rate of a sprayhead that manually turns on or off shall be the product of (i) the

174 maximum flow rate for a lavatory faucet, and (ii) the number of component lavatories (rim space  
175 of the lavatory in inches (millimeters) divided by 20 inches [508 millimeters]);

176 (b) The flow rate of residential kitchen faucets and replacement aerators shall not be  
177 greater than 1.8 gpm with optional temporary flow of 2.2 gpm at 60 psi when tested in  
178 accordance with the flow rate test procedure prescribed in Appendix S to Subpart B of Part 430  
179 of Title 10 of the Code of Federal Regulations; and

180 (c) The flow rate of public lavatory faucets and replacement aerators shall not be greater  
181 than 0.5 gpm at 60 psi when tested in accordance with the flow rate test procedure prescribed in  
182 Appendix S to Subpart B of Part 430 of Title 10 of the Code of Federal Regulations;

183 (d) The flow rate of showerheads shall not be greater than 2.0 gpm at 80 psi when tested  
184 in accordance with the flow rate test procedure prescribed in Appendix S to Subpart B of Part  
185 430 of Title 10 of the Code of Federal Regulations, effective on January 3, 2019.

186 (11) Plumbing fixtures shall meet the following requirements:

187 (a) The water consumption of urinals and water closets, other than those designed and  
188 marketed exclusively for use at prisons or mental health care facilities, shall be no greater than  
189 the values shown in items (a)(ii)(A) through (a)(ii)(D) when tested in accordance with the:

190 (i) Water consumption test prescribed in Appendix T to Subpart B of Part 430 of Title 10  
191 of the Code of Federal Regulations.

192 (ii) Waste extraction test for water closets (Section 7.9) of ASME A112.19.2/CSA B45.1-  
193 2018.

194 (b) Urinals shall have a maximum flush volume of 0.5 gallons per flush.

195 (c) Water closets, except for dual-flush tank-type water closets, shall have a maximum  
196 flush volume of 1.28 gallons per flush.

197 (d) Dual-flush tank-type water closets shall have a maximum effective flush volume of  
198 1.28 gallons per flush.

199 (12) Portable electric spas shall meet the requirements of the American National  
200 Standard for Portable Electric Spa Energy Efficiency (ANSI/APSP/ICC-14-2019).

201 (14) Water coolers shall have on mode with no water draw energy consumption, a test  
202 that records the 24-hour energy consumption of a water cooler with no water drawn during the  
203 test period, less than or equal to the following, as measured in accordance with the test criteria  
204 prescribed in Version 2.0 of the ENERGY STAR program product specifications for water  
205 coolers:

206 (a) 0.16 kilowatt-hours per day for cold-only and cook-and-cold units;

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

208 (c) 0.18 kilowatt-hours per day for hot and cold units—on demand.\

209 (15) Residential ventilating fans shall meet the qualification criteria of the ENERGY  
210 STAR Program Requirements Product Specification for Residential Ventilating Fans, Version  
211 4.1.

212 Commercial ovens included in the scope of the ENERGY STAR Program Requirements  
213 Product Specification for Commercial Ovens, Version 2.2, shall meet the qualification criteria of  
214 that specification.

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

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

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

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

227 Electric vehicle supply equipment included in the scope of the ENERGY STAR Program  
228 Requirements Product Specification for Electric Vehicle Supply Equipment, Version 1.0 (Rev.  
229 Apr-2017), shall meet the qualification criteria of that specification.

230 SECTION 18. Said section 5 of said chapter 25B, as so appearing, is hereby further  
231 amended by inserting after the fourth paragraph the following paragraph:-

232 On or after January 1, 2022, no new, commercial dishwasher, commercial fryer,  
233 commercial hot-food holding cabinet, commercial oven, commercial steam cooker, computer or  
234 computer monitor, electric vehicle supply equipment, faucet, high CRI fluorescent lamp, ,  
235 portable electric spa, residential ventilating fan, showerhead, spray sprinkler body, urinal, water

236 closet, or water cooler may be sold or offered for sale, lease, or rent in the state unless the  
237 efficiency of the new product meets or exceeds the efficiency standards set forth in the  
238 regulations adopted pursuant to Section 17.

239 a) On or after the date 12 months after enactment of this ACT, no state-regulated general  
240 service lamp may be sold or offered for sale in the state unless the efficiency of the new product  
241 meets or exceeds the efficiency standards provided in Section 17.

242 SECTION 19. Section 9 of said chapter 25B, as so appearing, is hereby amended by  
243 inserting after the first paragraph the following paragraph:-

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