

A-Engrossed
House Bill 3363

Ordered by the House May 19
Including House Amendments dated May 19

Sponsored by Representatives DINGFELDER, JENSON; Senator ATKINSON

SUMMARY

The following summary is not prepared by the sponsors of the measure and is not a part of the body thereof subject to consideration by the Legislative Assembly. It is an editor's brief statement of the essential features of the measure.

Establishes minimum energy efficiency standards for certain products. Prohibits sale or installation of products not meeting standards. Directs manufacturers of products to test and certify products as meeting standards. [*Allows State Department of Energy to inspect products to determine compliance.*]

[*Imposes civil penalty for second or subsequent violation of prohibition on sale or installation of products or of rules established by department.*]

A BILL FOR AN ACT

1
2 Relating to energy efficiency.

3 Whereas energy efficiency standards for certain products sold or installed in this state assure
4 consumers and businesses that such products meet minimum efficiency performance levels, saving
5 them money on utility bills; and

6 Whereas efficiency standards save energy and reduce pollution, including global warming emis-
7 sions and other environmental impacts associated with the production, distribution and use of elec-
8 tricity and natural gas; and

9 Whereas efficiency standards contribute to the economy of this state by helping to better bal-
10 ance energy supply and demand, thus reducing pressure for higher natural gas and electricity prices;
11 and

12 Whereas saving consumers and businesses money on energy bills helps state and local econo-
13 mies, because energy bill savings can be spent on local goods and services; and

14 Whereas efficiency standards can make the electric power grid more reliable by reducing the
15 strain on the grid during peak demand periods; and

16 Whereas improved energy efficiency can reduce or delay the need for new power plants, power
17 transmission lines and power distribution system upgrades; now, therefore,

18 **Be It Enacted by the People of the State of Oregon:**

19 **SECTION 1.** **As used in sections 1 to 9 of this 2005 Act, unless the context clearly re-**
20 **quires otherwise:**

21 **(1) "Automatic commercial ice cube machine" means a factory-made assembly, not nec-**
22 **essarily shipped in one package, consisting of a condensing unit and ice-making section op-**
23 **erating as an integrated unit with means for making and harvesting ice cubes, and any**
24 **integrated components for storing or dispensing ice.**

25 **(2) "Ballast" means a device used with an electric discharge lamp to obtain necessary**
26 **circuit conditions for starting and operating the lamp.**

NOTE: Matter in **boldfaced** type in an amended section is new; matter [*italic and bracketed*] is existing law to be omitted.
New sections are in **boldfaced** type.

1 (3) **“Commercial clothes washer”** means a soft mount horizontal-axis or vertical-axis
2 clothes washer that:

3 (a) Has a clothes compartment no greater than 3.5 cubic feet in the case of a
4 horizontal-axis product or no greater than 4 cubic feet in the case of a vertical-axis product;
5 and

6 (b) Is designed for use by more than one household.

7 (4) **“Commercial prerinse spray valve”** means a handheld device designed and marketed
8 for use with commercial dishwashing equipment and that sprays water on dishes, flatware
9 and other food service items for the purpose of removing food residue prior to their cleaning.

10 (5) **“Commercial refrigerators or freezers”** means refrigerators, freezers or refrigerator-
11 freezers, smaller than 85 cubic feet of internal volume and designed for use by commercial
12 or institutional facilities for the purpose of storing or merchandising food products,
13 beverages or ice at specified temperatures, other than products without doors, walk-in
14 refrigerators or freezers, consumer products that are federally regulated pursuant to 42
15 U.S.C. 6291 et seq. or freezers specifically designed for ice cream. **“Commercial refrigerators
16 or freezers”**:

17 (a) Must incorporate most components involved in the vapor-compression cycle and the
18 refrigerated compartment in a single cabinet; and

19 (b) May be configured with either solid or transparent doors as a reach-in cabinet, pass-
20 through cabinet, roll-in cabinet or roll-through cabinet.

21 (6) **“High-intensity discharge lamp”** means a lamp in which light is produced by the pas-
22 sage of an electric current through a vapor or gas, and in which the light-producing arc is
23 stabilized by bulb wall temperature and the arc tube has a bulb wall loading in excess of
24 three watts per square centimeter.

25 (7) **“Illuminated exit sign”** means an internally illuminated sign that is designed to be
26 permanently fixed in place to identify a building exit, that consists of an electrically powered
27 integral light source that illuminates the legend **“EXIT”** and any directional indicators and
28 that provides contrast between the legend, any directional indicators and the background.

29 (8) **“Metal halide lamp”** means a high-intensity discharge lamp in which the major portion
30 of the light is produced by radiation of metal halides and their products of dissociation,
31 possibly in combination with metallic vapors.

32 (9) **“Metal halide lamp fixture”** means a light fixture designed to be operated with a metal
33 halide lamp and a ballast for a metal halide lamp.

34 (10) **“Pass-through cabinet”** means a commercial refrigerator or freezer with hinged or
35 sliding doors on both the front and rear of the unit.

36 (11) **“Probe-start metal halide lamp ballast”** means a ballast used to operate metal halide
37 lamps that does not contain an igniter and that instead starts metal halide lamps by using
38 a third starting electrode probe in the arc tube.

39 (12) **“Reach-in cabinet”** means a commercial refrigerator or freezer with hinged or sliding
40 doors or lids, other than roll-in or roll-through cabinets or pass-through cabinets.

41 (13) **“Roll-in cabinet”** means a commercial refrigerator or freezer with hinged or sliding
42 doors that allow wheeled racks to be rolled into the unit.

43 (14) **“Roll-through cabinet”** means a commercial refrigerator or freezer with hinged or
44 sliding doors on two sides of the cabinet that allow wheeled racks to be rolled through the
45 unit.

1 (15) "Single-voltage external AC to DC power supply" means a device, other than a
2 product with batteries or battery packs that physically attach directly to the power supply
3 unit, a product with a battery chemistry or type selector switch and indicator light or a
4 product with a battery chemistry or type selector switch and a state of charge meter, that:

5 (a) Is designed to convert line voltage alternating current input into lower voltage direct
6 current output;

7 (b) Is able to convert to only one direct current output voltage at a time;

8 (c) Is sold with, or intended to be used with, a separate end-use product that constitutes
9 the primary power load;

10 (d) Is contained within a separate physical enclosure from the end-use product;

11 (e) Is connected to the end-use product via a removable or hard-wired male or female
12 electrical connection, cable, cord or other wiring; and

13 (f) Has a nameplate output power less than or equal to 250 watts.

14 (16) "State-regulated incandescent reflector lamp" means a lamp that is not colored or
15 designed for rough or vibrating service applications, that has an inner reflective coating on
16 the outer bulb to direct the light, that has an E26 medium screw base, that has a rated
17 voltage or voltage range that lies at least partially within 115 to 130 volts and that falls into
18 one of the following categories:

19 (a) A bulged reflector or elliptical reflector bulb shape that has a diameter that equals
20 or exceeds 2.25 inches; or

21 (b) A reflector, parabolic aluminized reflector or similar bulb shape that has a diameter
22 of 2.25 to 2.75 inches.

23 (17) "Torchiere" means a portable electric lighting fixture with a reflective bowl that di-
24 rects light upward so as to produce indirect illumination.

25 (18) "Traffic signal module" means a standard traffic signal indicator, consisting of a
26 light source, a lens and all other parts necessary for operation, that is:

27 (a) Eight inches, or approximately 200 millimeters, in diameter; or

28 (b) Twelve inches, or approximately 300 millimeters, in diameter.

29 (19) "Unit heater" means a self-contained, vented fan-type commercial space heater,
30 other than a consumer product covered by federal standards established pursuant to 42
31 U.S.C. 6291 et seq. or that is a direct vent, forced flue heater with a sealed combustion
32 burner, that uses natural gas or propane and that is designed to be installed without ducts
33 within a heated space.

34 **SECTION 2.** (1) Except as provided in subsection (2) of this section, a person may not sell
35 or offer for sale a new commercial prerinse spray valve, commercial refrigerator or freezer,
36 illuminated exit sign, single-voltage external AC to DC power supply, state-regulated incan-
37 descent reflector lamp, torchiere, traffic signal module or unit heater unless the energy ef-
38 ficiency of the new product meets or exceeds the minimum energy efficiency standards
39 specified in section 5 of this 2005 Act and any standards established by the State Department
40 of Energy pursuant to section 8 of this 2005 Act.

41 (2) A person may sell or offer for sale a new product not meeting efficiency standards
42 specified in subsection (1) of this section if the product is:

43 (a) Manufactured in this state and sold outside this state;

44 (b) Manufactured outside this state and sold at wholesale inside this state for final retail
45 sale and installation outside this state;

(c) Installed in a mobile or manufactured home at the time of construction; or

(d) Designed expressly for installation and use in recreational vehicles.

SECTION 3. Section 2 of this 2005 Act is amended to read:

Sec. 2. (1) Except as provided in subsection (2) of this section, a person may not sell or offer for sale a new commercial prerinse spray valve, commercial refrigerator or freezer, illuminated exit sign, single-voltage external AC to DC power supply, state-regulated incandescent reflector lamp, torchiere, traffic signal module, **automatic commercial ice cube machine, metal halide lamp fixture** or unit heater unless the energy efficiency of the new product meets or exceeds the minimum energy efficiency standards specified in section 5 of this 2005 Act and any standards established by the State Department of Energy pursuant to section 8 of this 2005 Act.

(2) A person may sell or offer for sale a new product not meeting efficiency standards specified in subsection (1) of this section if the product is:

(a) Manufactured in this state and sold outside this state;

(b) Manufactured outside this state and sold at wholesale inside this state for final retail sale and installation outside this state;

(c) Installed in a mobile or manufactured home at the time of construction; or

(d) Designed expressly for installation and use in recreational vehicles.

SECTION 4. Section 2 of this 2005 Act, as amended by section 3 of this 2005 Act, is amended to read:

Sec. 2. (1) Except as provided in subsection (2) of this section, a person may not sell or offer for sale a new **commercial clothes washer**, commercial prerinse spray valve, commercial refrigerator or freezer, illuminated exit sign, single-voltage external AC to DC power supply, state-regulated incandescent reflector lamp, torchiere, traffic signal module, automatic commercial ice cube machine, metal halide lamp fixture or unit heater unless the energy efficiency of the new product meets or exceeds the minimum energy efficiency standards specified in section 5 of this 2005 Act and any standards established by the State Department of Energy pursuant to section 8 of this 2005 Act.

(2) A person may sell or offer for sale a new product not meeting efficiency standards specified in subsection (1) of this section if the product is:

(a) Manufactured in this state and sold outside this state;

(b) Manufactured outside this state and sold at wholesale inside this state for final retail sale and installation outside this state;

(c) Installed in a mobile or manufactured home at the time of construction; or

(d) Designed expressly for installation and use in recreational vehicles.

SECTION 5. The following minimum energy efficiency standards for new products are established:

(1)(a) Automatic commercial ice cube machines must have daily energy use and daily water use no greater than the applicable values in the following table:

Equipment type	Type of	Harvest rate	Maximum	Maximum
	cooling	(lbs. ice/24 hrs.)	energy use	condenser
			(kWh/100 lbs.)	water use
				(gallons/100 lbs. ice)

1	Ice-making head	water	<500	7.80 - .0055H	200 - .022H
2			>=500<1436	5.58 - .0011H	200 - .022H
3			>=1436	4.0	200 - .022H
4	Ice-making head	air	<450	10.26 - .0086H	Not applicable
5			>=450	6.89 - .0011H	Not applicable
6	Remote condensing				
7	but not remote				
8	compressor	air	<1000	8.85 - .0038	Not applicable
9			>=1000	5.10	Not applicable
10	Remote condensing				
11	and remote				
12	compressor	air	<934	8.85 - .0038H	Not applicable
13			>=934	5.30	Not applicable
14	Self-contained				
15	models	water	<200	11.40 - .0190H	191 - .0315H
16			>=200	7.60	191 - .0315H
17	Self-contained				
18	models	air	<175	18.0 - .0469H	Not applicable
19			>=175	9.80	Not applicable

20 **Where H = harvest rate in pounds per 24 hours, which must be reported within 5 percent**
 21 **of the tested value. Maximum water use applies only to water used for the condenser.**

24 **(b) For purposes of this subsection, automatic commercial ice cube machines shall be**
 25 **tested in accordance with the ARI 810-2003 test method as published by the Air-Conditioning**
 26 **and Refrigeration Institute. Ice-making heads include all automatic commercial ice cube**
 27 **machines that are not split system ice makers or self-contained models as defined in ARI**
 28 **810-2003.**

29 **(2) Commercial clothes washers must have a minimum modified energy factor of 1.26 and**
 30 **a maximum water consumption factor of 9.5. For purposes of this subsection, capacity,**
 31 **modified energy factor and water consumption factor are defined and shall be measured in**
 32 **accordance with the federal test method for commercial clothes washers under 10 C.F.R.**
 33 **430.23.**

34 **(3) Commercial prerinse spray valves must have a flow rate equal to or less than 1.6**
 35 **gallons per minute when measured in accordance with the ASTM International's "Standard**
 36 **Test Method for Prerinse Spray Valves," ASTM F2324-03.**

37 **(4)(a) Commercial refrigerators or freezers must meet the applicable requirements listed**
 38 **in the following table:**

41 Equipment Type	42 Doors	43 Maximum Daily
		44 Energy Consumption (kWh)
45 Reach-in cabinets, pass-through cabinets and roll-in or roll-through	Solid	0.10V + 2.04

1	cabinets that are refrigerators	Transparent	0.12V + 3.34
2	Reach-in cabinets, pass-through		
3	cabinets and roll-in or roll-through		
4	cabinets that are “pulldown”		
5	refrigerators	Transparent	.126V + 3.51
6	Reach-in cabinets, pass-through		
7	cabinets and roll-in or roll-through	Solid	0.40V + 1.38
8	cabinets that are freezers	Transparent	0.75V + 4.10
9	Reach-in cabinets that are		
10	refrigerator-freezers with an		
11	AV of 5.19 or higher	Solid	0.27AV - 0.71

12
13 kWh = kilowatt hours

14 V = total volume (ft³)

15 AV = adjusted volume = [1.63 x freezer volume (ft³)] + refrigerator volume (ft³)

16

17

18 (b) For purposes of this subsection:

19 (A) “Pulldown” designates products designed to take a fully stocked refrigerator with
20 beverages at 90 degrees Fahrenheit and cool those beverages to a stable temperature of 38
21 degrees Fahrenheit within 12 hours or less.

22 (B) Daily energy consumption shall be measured in accordance with the American Na-
23 tional Standards Institute/American Society of Heating, Refrigerating and Air-Conditioning
24 Engineers test method 117-2002, except that:

25 (i) The back-loading doors of pass-through and roll-through refrigerators and freezers
26 must remain closed throughout the test; and

27 (ii) The controls of all commercial refrigerators or freezers shall be adjusted to obtain
28 the following product temperatures, in accordance with the California Code of Regulations,
29 Title 20, Division 2, Chapter 4, Article 4, section 1604, table A-2, effective November 27, 2002:

30

31

32 Product or compartment type	Integrated average product temperature 33 in degrees Fahrenheit
34 Refrigerator	35 38 +/- 2
36 Freezer	0 +/- 2

37

38

39 (5) Illuminated exit signs must have an input power demand of five watts or less per il-
40 luminated face. For purposes of this subsection, input power demand shall be measured in
41 accordance with the conditions for testing established by the United States Environmental
42 Protection Agency’s Energy Star exit sign program version 3.0. Illuminated exit signs must
43 also meet all applicable building and safety codes.

44 (6) Metal halide lamp fixtures designed to be operated with lamps rated greater than or
45 equal to 150 watts but less than or equal to 500 watts may not contain a probe-start metal

1 halide lamp ballast.

2 (7)(a) Single-voltage external AC to DC power supplies must meet the requirements in
3 the following table:

Nameplate output	Minimum Efficiency in Active Mode
<1 Watt	0.49 * Nameplate Output
>= 1 Watt and <= 49 Watts	0.09 * Ln (Nameplate Output) + 0.49
>49 Watts	0.84
	Maximum Energy Consumption in No-Load Mode
<= 10 Watts	0.5 Watts
>10 Watts and <= 250 Watts	0.75 Watts

17 Where Ln (Nameplate Output) - Natural Logarithm of the nameplate output expressed in
18 Watts

21 (b) For the purposes of this subsection, efficiency of single-voltage external AC to DC
22 power supplies shall be measured in accordance with the United States Environmental Pro-
23 tection Agency's "Test Method for Calculating the Energy Efficiency of Single-Voltage Ex-
24 ternal AC to DC and AC to AC Power Supplies," dated August 11, 2004.

25 (8)(a) State-regulated incandescent reflector lamps, other than 50 watt elliptical reflector
26 lamps, must meet the minimum efficiencies in the following table:

Wattage	Minimum average lamp efficiency (lumens per watt)
40 - 50	10.5
51 - 66	11.0
67 - 85	12.5
86 - 115	14.0
116 - 155	14.5
156 - 205	15.0

40 (b) Lamp efficiency shall be measured in accordance with the applicable test method
41 found in 10 C.F.R. 430.23.

42 (9) Torchieres may not use more than 190 watts. A torchiere uses more than 190 watts
43 if any commercially available lamp or combination of lamps can be inserted in a socket and
44 cause the torchiere to draw more than 190 watts when operated at full brightness.

45 (10)(a) Traffic signal modules must have maximum and nominal wattage that does not

1 exceed the applicable values in the following table:

2	3	4	5	6
7	8	9	10	11
12	13	14	15	16
17	18	19	20	21
22	23	24	25	26
27	28	29	30	31
32	33	34	35	36
37	38	39	40	41
42	43	44	45	46
47	48	49	50	51
52	53	54	55	56
57	58	59	60	61
62	63	64	65	66
67	68	69	70	71
72	73	74	75	76
77	78	79	80	81
82	83	84	85	86
87	88	89	90	91
92	93	94	95	96
97	98	99	100	101

16 (b) For purposes of this subsection, maximum wattage and nominal wattage shall be
 17 measured in accordance with and under the testing conditions specified by the Institute for
 18 Transportation Engineers “Interim LED Purchase Specification, Vehicle Traffic Control Sig-
 19 nal Heads, Part 2: Light Emitting Diode Vehicle Traffic Signal Modules.”

20 (11) Unit heaters must be equipped with intermittent ignition devices and must have ei-
 21 ther power venting or an automatic flue damper.

22 **SECTION 6.** (1) Except as provided in subsection (2) of this section, a person may not
 23 install a new commercial prerinse spray valve, commercial refrigerator or freezer, illumi-
 24 nated exit sign, single-voltage external AC to DC power supply, state-regulated incandescent
 25 reflector lamp, torchiere, traffic signal module or unit heater for compensation unless the
 26 energy efficiency of the new product meets or exceeds the minimum energy efficiency stan-
 27 dards specified in section 5 of this 2005 Act and any efficiency standards established by the
 28 State Department of Energy pursuant to section 8 of this 2005 Act.

29 (2) A person may install a new product not meeting efficiency standards specified in
 30 subsection (1) of this section if the product is:

31 (a) Installed in a mobile or manufactured home at the time of construction; or

32 (b) Designed expressly for installation and use in recreational vehicles.

33 **SECTION 7.** Section 6 of this 2005 Act is amended to read:

34 **Sec. 6.** (1) Except as provided in subsection (2) of this section, a person may not install a new
 35 **commercial clothes washer**, commercial prerinse spray valve, commercial refrigerator or freezer,
 36 illuminated exit sign, single-voltage external AC to DC power supply, state-regulated incandescent
 37 reflector lamp, torchiere, traffic signal module, **automatic commercial ice cube machine, metal**
 38 **halide lamp fixture** or unit heater for compensation unless the energy efficiency of the new product
 39 meets or exceeds the minimum energy efficiency standards specified in section 5 of this 2005 Act
 40 and any efficiency standards established by the State Department of Energy pursuant to section 8
 41 of this 2005 Act.

42 (2) A person may install a new product not meeting efficiency standards specified in subsection
 43 (1) of this section if the product is:

44 (a) Installed in a mobile or manufactured home at the time of construction; or

45 (b) Designed expressly for installation and use in recreational vehicles.

SECTION 8. Notwithstanding section 5 of this 2005 Act:

(1) The State Department of Energy shall periodically review the minimum energy efficiency standards specified in section 5 of this 2005 Act and shall report to the Legislative Assembly when the standards need to be updated, due to federal action or to the outcome of collaborative consultations with manufacturers and the energy departments of other states.

(2) The department may establish additional minimum energy efficiency standards and testing methods, as long as the standards and testing methods:

- (a) Are for products that have no federal energy efficiency standard or testing methods;
- (b) Are cost-effective for consumers;
- (c) Are for products that are commercially available from multiple manufacturers;
- (d) Achieve electricity or natural gas savings; and
- (e) Are applied to products in at least one other state.

SECTION 9. (1) A manufacturer of a product specified in section 2 of this 2005 Act that is sold or offered for sale, or installed or offered for installation, in this state shall test samples of their products in accordance with the test methods specified in section 5 of this 2005 Act or, if more stringent, those specified in the state building code.

(2) The State Department of Energy shall adopt test methods for products required to be tested under this section if the test methods are not provided for in section 5 of this 2005 Act or in the state building code. The department shall use test methods approved by the United States Department of Energy or, in the absence of federal test methods, other appropriate nationally recognized test methods for guidance in adopting test methods. The State Department of Energy may periodically review and revise its test methods.

(3) A manufacturer required to test a product pursuant to this section, except for a manufacturer of single-voltage external AC to DC power supplies, shall certify to the State Department of Energy that the products are in compliance with the minimum energy efficiency standards specified in section 5 of this 2005 Act and any standards established by the department under section 8 of this 2005 Act. The manufacturer shall base its certification on the testing performed pursuant to this section. The department shall establish rules governing the certification of these products and may coordinate with the certification programs of other states and federal agencies with similar standards.

(4) A manufacturer required to test a product pursuant to this section shall identify each product that complies with the minimum energy efficiency standards specified in section 5 of this 2005 Act and any standards established by the department under section 8 of this 2005 Act by means of a mark, label or tag on the product and packaging at the time of sale or installation. The department shall establish rules governing the identification of the products and packaging, which shall be coordinated to the greatest extent practicable with the labeling programs of other states and federal agencies with equivalent efficiency standards.

SECTION 10. (1) Section 2 of this 2005 Act becomes operative January 1, 2007.

(2) The amendments to section 2 of this 2005 Act by section 3 of this 2005 Act become operative January 1, 2008.

(3) Section 6 of this 2005 Act becomes operative January 1, 2008.

(4) The amendments to sections 2 and 6 of this 2005 Act by sections 4 and 7 of this 2005 Act become operative January 1, 2009.