House Bill 3363
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 as introduced.

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
Relating to energy efficiency.

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

Whereas efficiency standards save energy and reduce pollution, including global warming emissions and other environmental impacts associated with the production, distribution and use of electricity and natural gas; and

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

Whereas saving consumers and businesses money on energy bills helps state and local economies, because energy bill savings can be spent on local goods and services; and

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

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

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

SECTION 1. As used in sections 1 to 10 of this 2005 Act, unless the context clearly requires otherwise:

(1) “Automatic commercial ice cube machine” means a factory-made assembly, not necessarily shipped in one package, consisting of a condensing unit and ice-making section operating as an integrated unit with means for making and harvesting ice cubes, and any integrated components for storing or dispensing ice.

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

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

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

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

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

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

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

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

(6) “Digital television adapter” means an electronic product, other than cable or satellite television set-top boxes, for which the sole purpose is the conversion of digital video terrestrial broadcast signals to analog National Television System Committee video signals for use by an analog device.

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

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

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

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

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

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

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

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

(15) “Roll-through cabinet” means a commercial refrigerator or freezer with hinged or sliding doors on two sides of the cabinet that allow wheeled racks to be rolled through the
"Single-voltage external AC to DC power supply" means a device, other than a product with batteries or battery packs that physically attach directly to the power supply unit, a product with a battery chemistry or type selector switch and indicator light or a product with a battery chemistry or type selector switch and a state of charge meter, that:

(a) Is designed to convert line voltage alternating current input into lower voltage direct current output;
(b) Is able to convert to only one direct current output voltage at a time;
(c) Is sold with, or intended to be used with, a separate end-use product that constitutes the primary power load;
(d) Is contained within a separate physical enclosure from the end-use product;
(e) Is connected to the end-use product via a removable or hard-wired male or female electrical connection, cable, cord or other wiring; and
(f) Has a nameplate output power less than or equal to 250 watts.

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

(a) A bulged reflector or elliptical reflector bulb shape that has a diameter that equals or exceeds 2.25 inches; or
(b) A reflector, parabolic aluminized reflector or similar bulb shape that has a diameter of 2.25 to 2.75 inches.

"Torchiere" means a portable electric lighting fixture with a reflective bowl that directs light upward so as to produce indirect illumination.

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

(a) Eight inches, or approximately 200 millimeters, in diameter; or
(b) Twelve inches, or approximately 300 millimeters, in diameter.

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

SECTION 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, digital television adapter, illuminated exit sign, single-voltage external AC to DC power supply, state-regulated incandescent reflector lamp, torchiere, traffic signal module or unit heater unless the energy efficiency of the new product meets or exceeds the minimum energy efficiency standards specified in section 4 of this 2005 Act and any standards established by the State Department of Energy pursuant to section 7 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 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 clothes washer, commercial prerinse spray valve, commercial refrigerator or freezer, digital television adapter, 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 4 of this 2005 Act and any standards established by the State Department of Energy pursuant to section 7 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. 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:

<table>
<thead>
<tr>
<th>Equipment type</th>
<th>Type of cooling</th>
<th>Harvest rate (lbs. ice/24 hrs.)</th>
<th>Maximum energy use (kWh/100 lbs.)</th>
<th>Maximum condenser water use (gallons/100 lbs. ice)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ice-making head</td>
<td>water</td>
<td>&lt;500</td>
<td>7.80 - .0055H</td>
<td>200 - .022H</td>
</tr>
<tr>
<td></td>
<td></td>
<td>&gt;=500 &lt;1436</td>
<td>5.58 - .0011H</td>
<td>200 - .022H</td>
</tr>
<tr>
<td></td>
<td></td>
<td>&gt;1436</td>
<td>4.0</td>
<td>200 - .022H</td>
</tr>
<tr>
<td>Ice-making head</td>
<td>air</td>
<td>&lt;450</td>
<td>10.26 - .0086H</td>
<td>Not applicable</td>
</tr>
<tr>
<td></td>
<td></td>
<td>&gt;450</td>
<td>6.89 - .0011H</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Remote condensing</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>but not remote</td>
<td>compressors</td>
<td>&lt;1000</td>
<td>8.85 - .0038</td>
<td>Not applicable</td>
</tr>
<tr>
<td></td>
<td></td>
<td>&gt;=1000</td>
<td>5.10</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Remote condensing</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>and remote</td>
<td>compressors</td>
<td>&lt;934</td>
<td>8.85 - .0038H</td>
<td>Not applicable</td>
</tr>
<tr>
<td></td>
<td></td>
<td>&gt;=934</td>
<td>5.30</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Self-contained</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
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<table>
<thead>
<tr>
<th>Equipment Type</th>
<th>Doors</th>
<th>Maximum Daily Energy Consumption (kWh)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reach-in cabinets, pass-through cabinets and roll-in or roll-through</td>
<td>Solid</td>
<td>0.10V + 2.04</td>
</tr>
<tr>
<td>cabinets that are refrigerators</td>
<td>Transparent</td>
<td>0.12V + 3.34</td>
</tr>
<tr>
<td>Reach-in cabinets, pass-through cabinets and roll-in or roll-through cabinets that are “pulldown” refrigerators</td>
<td>Transparent</td>
<td>.126V + 3.51</td>
</tr>
<tr>
<td>Reach-in cabinets, pass-through cabinets and roll-in or roll-through cabinets that are freezers</td>
<td>Solid</td>
<td>0.40V + 1.38</td>
</tr>
<tr>
<td>cabinets that are freezers</td>
<td>Transparent</td>
<td>0.75V + 4.10</td>
</tr>
<tr>
<td>Reach-in cabinets that are refrigerator-freezers with an AV of 5.19 or higher</td>
<td>Solid</td>
<td>0.27AV - 0.71</td>
</tr>
<tr>
<td>kWh = kilowatt hours</td>
<td>V = total volume (ft³)</td>
<td></td>
</tr>
</tbody>
</table>

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

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

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

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

(4)(a) Commercial refrigerators or freezers must meet the applicable requirements listed in the following table:
AV = adjusted volume = \[1.63 \times \text{freezer volume (ft}^3\text{)}\] + \text{refrigerator volume (ft}^3\text{)}

(b) For purposes of this subsection:

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

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

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

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

<table>
<thead>
<tr>
<th>Product or compartment type</th>
<th>Integrated average product temperature in degrees Fahrenheit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Refrigerator</td>
<td>38 +/- 2</td>
</tr>
<tr>
<td>Freezer</td>
<td>0 +/- 2</td>
</tr>
</tbody>
</table>

(5) Digital television adapters must not use more than one watt in “passive standby” mode and may not use more than eight watts in “on” mode. For purposes of this subsection, “passive standby” mode and “on” mode power consumption shall be measured in accordance with International Electrotechnical Commission test method 62087:2002(E), “Methods of Measurement for the Power Consumption of Audio, Video, and Related Equipment.”

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

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

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

<table>
<thead>
<tr>
<th>Nameplate output</th>
<th>Minimum Efficiency in Active Mode</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;1 Watt</td>
<td>0.49 * Nameplate Output</td>
</tr>
<tr>
<td>&gt;= 1 Watt</td>
<td></td>
</tr>
</tbody>
</table>
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

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

(b) For the purposes of this subsection, efficiency of single-voltage external AC to DC power supplies shall be measured in accordance with the United States Environmental Protection Agency's “Test Method for Calculating the Energy Efficiency of Single-Voltage External AC to DC and AC to AC Power Supplies,” dated August 11, 2004.

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

<table>
<thead>
<tr>
<th>Wattage</th>
<th>Minimum average lamp efficiency (lumens per watt)</th>
</tr>
</thead>
<tbody>
<tr>
<td>40 - 50</td>
<td>10.5</td>
</tr>
<tr>
<td>51 - 66</td>
<td>11.0</td>
</tr>
<tr>
<td>67 - 85</td>
<td>12.5</td>
</tr>
<tr>
<td>86 - 115</td>
<td>14.0</td>
</tr>
<tr>
<td>116 - 155</td>
<td>14.5</td>
</tr>
<tr>
<td>156 - 205</td>
<td>15.0</td>
</tr>
</tbody>
</table>

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

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

(11)(a) Traffic signal modules must have maximum and nominal wattage that does not exceed the applicable values in the following table:

<table>
<thead>
<tr>
<th>Module Type</th>
<th>Maximum Wattage (at 74°C)</th>
<th>Nominal Wattage (at 25°C)</th>
</tr>
</thead>
<tbody>
<tr>
<td>12” red ball (or 300 mm circular)</td>
<td>17</td>
<td>11</td>
</tr>
<tr>
<td>8” red ball (or 200 mm circular)</td>
<td>13</td>
<td>8</td>
</tr>
<tr>
<td>12” red arrow (or 300 mm arrow)</td>
<td>12</td>
<td>9</td>
</tr>
</tbody>
</table>
(b) For purposes of this subsection, maximum wattage and nominal wattage shall be measured in accordance with and under the testing conditions specified by the Institute for Transportation Engineers “Interim LED Purchase Specification, Vehicle Traffic Control Signal Heads, Part 2: Light Emitting Diode Vehicle Traffic Signal Modules.”

(12) Unit heaters must be equipped with intermittent ignition devices and must have either power venting or an automatic flue damper.

SECTION 5. (1) Except as provided in subsection (2) of this section, a person may not install a new commercial clothes washer, commercial prerinse spray valve, commercial refrigerator or freezer, digital television adapter, illuminated exit sign, single-voltage external AC to DC power supply, state-regulated incandescent reflector lamp, torchiere, traffic signal module or unit heater for compensation unless the energy efficiency of the new product meets or exceeds the minimum energy efficiency standards specified in section 4 of this 2005 Act and any efficiency standards established by the State Department of Energy pursuant to section 7 of this 2005 Act.

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

(a) Installed in a mobile or manufactured home at the time of construction; or
(b) Designed expressly for installation and use in recreational vehicles.

SECTION 6. Section 5 of this 2005 Act is amended to read:

Sec. 5. (1) Except as provided in subsection (2) of this section, a person may not install a new commercial clothes washer, commercial prerinse spray valve, commercial refrigerator or freezer, digital television adapter, 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 for compensation unless the energy efficiency of the new product meets or exceeds the minimum energy efficiency standards specified in section 4 of this 2005 Act and any efficiency standards established by the State Department of Energy pursuant to section 7 of this 2005 Act.

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

(a) Installed in a mobile or manufactured home at the time of construction; or
(b) Designed expressly for installation and use in recreational vehicles.

SECTION 7. Notwithstanding section 4 of this 2005 Act:

(1) Every four years, the State Department of Energy shall review and update the minimum energy efficiency standards specified in section 4 of this 2005 Act.

(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 8. Notwithstanding the requirement of section 7 of this 2005 Act that the State Department of Energy review and update the minimum energy efficiency standards every four years, the department shall first review and update the minimum energy efficiency standards specified in section 4 of this 2005 Act on January 1, 2010. The department may take any actions necessary, prior to January 1, 2010, to enable the department to review and update the minimum energy efficiency standards on January 1, 2010.

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 4 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 4 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 4 of this 2005 Act and any standards established by the department under section 7 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 4 of this 2005 Act and any standards established by the department under section 7 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) The State Department of Energy may test any 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. If the department determines that a product is not in compliance with the minimum energy efficiency standards specified in section 4 of this 2005 Act or standards established by the department under section 7 of this 2005 Act, the department shall:

(a) Charge the manufacturer of the product for the cost of product purchase and testing; and

(b) Make information available to the public on products found not to be in compliance with the standards.

(2) With prior notice and at reasonable and convenient hours, the department may perform periodic inspections of manufacturers, installers, distributors or retailers of products specified in section 2 of this 2005 Act in order to determine compliance with sections 2, 5 and 9 of this 2005 Act.
(3) The department shall investigate complaints received concerning violations of sections 2, 5 and 9 of this 2005 Act.

SECTION 11. (1) A person who violates section 2, 5 or 9 of this 2005 Act or any rules adopted by the department to implement sections 1 to 10 of this 2005 Act shall be:
(a) For a first violation, issued a warning of the violation from the Director of the State Department of Energy.
(b) For a second and subsequent violation, subject to a civil penalty of not more than $250.
(2) Each violation constitutes a separate offense, and each day that the violation continues is a separate offense.
(3) Penalties assessed under this section are in addition to costs charged to a manufacturer under section 10 of this 2005 Act.

SECTION 12. (1) Section 2 of this 2005 Act becomes operative January 1, 2007.
(2) Section 3 of this 2005 Act becomes operative January 1, 2008.
(3) Section 5 of this 2005 Act becomes operative January 1, 2008.
(4) Section 6 of this 2005 Act becomes operative January 1, 2009.
(5) Section 7 of this 2005 Act becomes operative January 1, 2010.