

B-Engrossed Senate Bill 692

Ordered by the House May 9
Including Senate Amendments dated April 12 and House Amendments
dated May 9

Sponsored by COMMITTEE ON ENVIRONMENT AND NATURAL RESOURCES

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 that do not meet standards.

A BILL FOR AN ACT

1
2 Relating to minimum energy efficiency standards; creating new provisions; and amending ORS
3 469.229, 469.233, 469.238 and 469.239.

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

DEFINITIONS

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6
7
8 **SECTION 1.** ORS 469.229 is amended to read:

9 469.229. As used in ORS 469.229 to 469.261, unless the context clearly requires otherwise:

10 (1) **“À la carte charger” means a battery charger that is individually packaged without**
11 **batteries, including a multiport charger or a charger with multi-voltage capability.**

12 [(1)] (2) **“Automatic commercial ice cube machine” means a factory-made assembly, not neces-**
13 **sarily shipped in one package, consisting of a condensing unit and ice-making section operating as**
14 **an integrated unit with means for making and harvesting ice cubes, and any integrated components**
15 **for storing or dispensing ice.**

16 [(2)] (3) **“Ballast” means a device used with an electric discharge lamp to obtain necessary cir-**
17 **cuit conditions for starting and operating the lamp.**

18 (4) **“Battery” or “battery pack” means an assembly of one or more rechargeable cells**
19 **intended to provide electrical energy to a product, in one of the following forms:**

20 (a) **A detachable battery that is contained in an enclosure separate from the product and**
21 **that is intended to be removed or disconnected from the product for charging; or**

22 (b) **An integral battery that is contained within the product and is not removed from the**
23 **product for charging.**

24 (5) **“Battery analyzer” means a device:**

25 (a) **Used to analyze and report a battery’s performance and overall condition;**

26 (b) **Capable of being programmed and performing service functions to restore capability**
27 **in deficient batteries; and**

28 (c) **Not intended or marketed to be used on a daily basis for the purpose of charging**

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 **batteries.**

2 (6) **“Battery backup” or “uninterruptible power supply charger (UPS)” means a small**
3 **battery charger system that is voltage and frequency dependent (VFD) and designed to pro-**
4 **vide power to an end-use product in the event of a power outage, including a UPS as defined**
5 **in International Electrotechnical Commission (IEC) publication 62040-3 (March 2011 edition),**
6 **where the output of the VFD UPS is dependent on changes in AC input voltage and frequency**
7 **and is not intended to provide additional corrective functions, such as those relating to the**
8 **use of tapped transformers.**

9 (7)(a) **“Battery charger system” means a battery charger coupled with its batteries, in-**
10 **cluding:**

11 (A) **Electronic devices with a battery that are normally charged from AC line voltage or**
12 **DC input voltage through an internal or external power supply and a dedicated battery**
13 **charger;**

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

16 (C) **Dedicated battery systems primarily designed for electrical or emergency backup; and**

17 (D) **Devices whose primary function is to charge batteries, along with the batteries the**
18 **devices are designed to charge, including chargers for power tool batteries and chargers for**
19 **automotive, AA, AAA, C, D, or nine-volt rechargeable batteries and chargers for batteries**
20 **used in larger industrial motive equipment and à la carte chargers.**

21 (b) **“Battery charger system” does not mean a battery charger:**

22 (A) **Used to charge a motor vehicle that is powered by an electric motor drawing current**
23 **from rechargeable storage batteries, fuel cells or other portable sources of electrical current,**
24 **including a nonelectrical source of power designed to charge batteries and components**
25 **thereof, except for battery chargers for forklifts, electric personal assistive mobility devices**
26 **or low-speed vehicles;**

27 (B) **That is classified as a Class II or Class III device for human use under the Federal**
28 **Food, Drug, and Cosmetic Act, as in effect on the effective date of this 2013 Act, and that**
29 **requires listing and approval as a medical device;**

30 (C) **Used to charge a battery or batteries in an illuminated exit sign, including those**
31 **products that are a combination illuminated exit sign and emergency egress lighting;**

32 (D) **With input that is three phases of line-to-line 300 volts root mean square or more**
33 **and is designed for a stationary power application;**

34 (E) **That is a battery analyzer; or**

35 (F) **That is a voltage independent or voltage and frequency independent uninterruptible**
36 **power supply as defined in International Electrotechnical Commission (IEC) publication**
37 **62040-3 (March 2011 edition).**

38 (c) **The charging circuitry of battery charger systems may or may not be located within**
39 **the housing of the end-use device. In many cases, the battery may be charged with a dedi-**
40 **cated external charger and power supply combination that is separate from the device that**
41 **runs on power from the battery.**

42 (8) **“Battery maintenance mode” means the mode of operation when the battery charger**
43 **system is connected to the main electricity supply and the battery is fully charged and con-**
44 **connected to the charger.**

45 [(3)] (9) **“Bottle-type water dispenser” means a water dispenser that uses a bottle or reservoir**

1 as the source of potable water.

2 **(10) “Charge return factor” means the number of ampere-hours returned to the battery**
3 **during the charge cycle divided by the number of ampere-hours delivered by the battery**
4 **during discharge.**

5 **(11) “Combination television” means a system in which a television or television monitor**
6 **and an additional device or devices, including a video cassette recorder, are combined into a**
7 **single unit in which the additional device or devices are included in the television casing.**

8 [(4)] **(12) “Commercial clothes washer” means a soft mount horizontal-axis or vertical-axis**
9 **clothes washer that:**

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

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

13 [(5)(a)] **(13)(a) “Commercial hot food holding cabinet” means an appliance that is a heated,**
14 **fully-enclosed compartment with one or more solid doors and is designed to maintain the temper-**
15 **ature of hot food that has been cooked in a separate appliance.**

16 (b) “Commercial hot food holding cabinet” does not include heated glass merchandising cabinets,
17 drawer warmers or cook-and-hold appliances.

18 [(6)] **(14) “Commercial prerinse spray valve” means a handheld device designed and marketed for**
19 **use with commercial dishwashing equipment and that sprays water on dishes, flatware and other**
20 **food service items for the purpose of removing food residue prior to their cleaning.**

21 [(7)] **(15) “Commercial refrigerators or freezers” means refrigerators, freezers or refrigerator-**
22 **freezers, smaller than 85 cubic feet of internal volume and designed for use by commercial or insti-**
23 **tutional facilities for the purpose of storing or merchandising food products, beverages or ice at**
24 **specified temperatures, other than products without doors, walk-in refrigerators or freezers, con-**
25 **sumer products that are federally regulated pursuant to 42 U.S.C. 6291 et seq. or freezers specifically**
26 **designed for ice cream. “Commercial refrigerators or freezers”:**

27 (a) Must incorporate most components involved in the vapor-compression cycle and the refrig-
28 erated compartment in a single cabinet; and

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

31 [(8)(a)] **(16)(a) “Compact audio product,” also known as a mini, mid, micro or shelf audio system,**
32 **means an integrated audio system encased in a single housing that includes an amplifier and radio**
33 **tuner and attached or separable speakers that can reproduce audio from one or more of the fol-**
34 **lowing media:**

35 (A) Magnetic tape;

36 (B) Compact disc;

37 (C) DVD; or

38 (D) Flash memory.

39 (b) “Compact audio product” does not include products that can be independently powered by
40 internal batteries, have a powered external satellite antenna or can provide a video output signal.

41 [(9)] **(17) “Compensation” means money or any other valuable thing, regardless of form, received**
42 **or to be received by a person for services rendered.**

43 **(18) “Component television” means a television composed of two or more separate com-**
44 **ponents, including separate display device and tuner, marketed as a television under one**
45 **model or system designation and having one or more power cords.**

1 **(19) “Computer monitor” means an analog or digital device that is designed primarily for**
2 **the display of computer-generated signals and that is not marketed for use as a television.**

3 [(10)] **(20) “Digital versatile disc” or “DVD” means a laser-encoded plastic medium capable of**
4 **storing a large amount of digital audio, video and computer data.**

5 [(11)(a)] **(21)(a) “Digital versatile disc player” or “digital versatile disc recorder” means a com-**
6 **mercially available electronic product encased in a single housing that includes an integral power**
7 **supply and for which the sole purpose is, respectively, the decoding and the production or recording**
8 **of digitized video signal on a DVD.**

9 (b) “Digital versatile disc recorder” does not include models that have an electronic program-
10 **ming guide function that provides an interactive, on-screen menu of television listings and down-**
11 **loads program information from the vertical blanking interval of a regular television signal.**

12 **(22) “Electronic programming guide” means an application that provides an interactive,**
13 **on-screen menu of television listings that downloads program information from the vertical**
14 **blanking interval of a regular television signal.**

15 [(12)] **(23) “High-intensity discharge lamp” means a lamp in which light is produced by the pas-**
16 **sage of an electric current through a vapor or gas, and in which the light-producing arc is stabilized**
17 **by bulb wall temperature and the arc tube has a bulb wall loading in excess of three watts per**
18 **square centimeter.**

19 [(13)] **(24) “Illuminated exit sign” means an internally illuminated sign that is designed to be**
20 **permanently fixed in place to identify a building exit, that consists of an electrically powered inte-**
21 **gral light source that illuminates the legend “EXIT” and any directional indicators and that pro-**
22 **vides contrast between the legend, any directional indicators and the background.**

23 **(25) “Inductive charger system” means a small battery charger system that transfers**
24 **power to the charger through magnetic or electric induction.**

25 **(26)(a) “Large battery charger system” means a battery charger system with a rated in-**
26 **put power of more than two kilowatts.**

27 **(b) “Large battery charger system” does not mean a battery charger system for golf**
28 **carts.**

29 [(14)] **(27) “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, possibly in**
31 **combination with metallic vapors.**

32 [(15)] **(28) “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 **(29) “Multiport charger” means a battery charger that is capable of simultaneously**
35 **charging two or more batteries and that may have multivoltage capability, allowing two or**
36 **more batteries of different voltages to charge simultaneously.**

37 **(30) “No battery mode” means the mode of operation in which a battery charger is con-**
38 **nected to the main electricity supply and the battery is not connected to the charger.**

39 [(16)] **(31) “Pass-through cabinet” means a commercial refrigerator or freezer with hinged or**
40 **sliding doors on both the front and rear of the unit.**

41 [(17)] **(32) “Portable electric spa” means a factory-built electric spa or hot tub supplied with**
42 **equipment for heating and circulating water.**

43 **(33) “Power conversion efficiency” means the instantaneous DC output power of the**
44 **battery charger system divided by the simultaneous utility AC input power.**

45 [(18)] **(34) “Probe-start metal halide lamp ballast” means a ballast used to operate metal halide**

1 lamps that does not contain an igniter and that instead starts metal halide lamps by using a third
2 starting electrode probe in the arc tube.

3 [(19)] (35) "Reach-in cabinet" means a commercial refrigerator or freezer with hinged or sliding
4 doors or lids, other than roll-in or roll-through cabinets or pass-through cabinets.

5 [(20)] (36) "Roll-in cabinet" means a commercial refrigerator or freezer with hinged or sliding
6 doors that allow wheeled racks to be rolled into the unit.

7 [(21)] (37) "Roll-through cabinet" means a commercial refrigerator or freezer with hinged or
8 sliding doors on two sides of the cabinet that allow wheeled racks to be rolled through the unit.

9 (38) "Selected input mode" means the input port selected that the television uses as a
10 source to produce a visible or audible output and that is required for televisions with multi-
11 ple possible inputs, including coaxial, composite, S-Video, HDMI and component connectors.

12 [(22)(a)] (39)(a) "Single-voltage external AC to DC power supply" means a device, other than a
13 product with batteries or battery packs that physically attach directly to the power supply unit, a
14 product with a battery chemistry or type selector switch and indicator light or a product with a
15 battery chemistry or type selector switch and a state of charge meter, that:

16 (A) Is designed to convert line voltage alternating current input into lower voltage direct cur-
17 rent output;

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

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

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

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

24 (F) Has a nameplate output power less than or equal to 250 watts.

25 (b) "Single-voltage external AC to DC power supply" does not include power supplies that are
26 classified as devices for human use under the Federal Food, Drug and Cosmetic Act, 21 U.S.C. 360c.

27 (40) "Small battery charger system" means:

28 (a) A battery charger system with a rated input power of two kilowatts or less.

29 (b) A golf cart battery charger system, regardless of input power or battery capacity.

30 [(23)] (41) "State-regulated incandescent reflector lamp" means a lamp that is not colored or
31 designed for rough or vibrating service applications, that has an inner reflective coating on the
32 outer bulb to direct the light, that has an E26 medium screw base, that has a rated voltage or
33 voltage range that lies at least partially within 115 to 130 volts and that falls into one of the fol-
34 lowing categories:

35 (a) A bulged reflector or elliptical reflector bulb shape that has a diameter that equals or ex-
36 ceeds 2.25 inches; or

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

39 (42)(a) "Television" means an analog or digital device, including a combination television,
40 a television monitor, a component television and any unit marketed as a television, designed
41 for the display and reception of a terrestrial, satellite, cable or Internet protocol or other
42 broadcast or recorded transmission of analog or digital video or audio signals.

43 (b) "Television" does not mean a computer monitor.

44 (43) "Television monitor" means a television that does not have an internal tuner, re-
45 ceiver or playback device.

1 **(44) “Television standby-passive mode” means the mode of operation in which the tele-**
2 **vision is connected to a power source, produces neither sound nor picture but can be**
3 **switched into another mode with the remote control unit or via an internal signal.**

4 [(24)] **(45) “Torchiere” means a portable electric lighting fixture with a reflective bowl that di-**
5 **rects light upward so as to produce indirect illumination.**

6 [(25)] **(46) “Traffic signal module” means a standard traffic signal indicator, consisting of a light**
7 **source, a lens and all other parts necessary for operation, that is:**

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

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

10 [(26)] **(47) “Unit heater” means a self-contained, vented fan-type commercial space heater, other**
11 **than a consumer product covered by federal standards established pursuant to 42 U.S.C. 6291 et seq.**
12 **or that is a direct vent, forced flue heater with a sealed combustion burner, that uses natural gas**
13 **or propane and that is designed to be installed without ducts within a heated space.**

14 **(48) “USB charger system” means a small battery charger system that uses a universal**
15 **serial bus (USB) connector as the only power source to charge the battery, and is packaged**
16 **with an external power supply rated with a voltage output of five volts and a power output**
17 **of 15 watts or less.**

18 [(27)] **(49) “Walk-in refrigerator” and “walk-in freezer” mean a space refrigerated to temper-**
19 **atures, respectively, at or above and below 32° F that can be walked into.**

20 [(28)] **(50) “Water dispenser” means a factory-made assembly that mechanically cools and heats**
21 **potable water and dispenses the cooled or heated water by integral or remote means.**

22 **SECTION 2.** ORS 469.229, as amended by section 1 of this 2013 Act, is amended to read:

23 469.229. As used in ORS 469.229 to 469.261, unless the context clearly requires otherwise:

24 (1) “À la carte charger” means a battery charger that is individually packaged without batteries,
25 including a multiport charger or a charger with multi-voltage capability.

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

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

32 (4) “Battery” or “battery pack” means an assembly of one or more rechargeable cells intended
33 to provide electrical energy to a product, in one of the following forms:

34 (a) A detachable battery that is contained in an enclosure separate from the product and that
35 is intended to be removed or disconnected from the product for charging; or

36 (b) An integral battery that is contained within the product and is not removed from the product
37 for charging.

38 (5) “Battery analyzer” means a device:

39 (a) Used to analyze and report a battery’s performance and overall condition;

40 (b) Capable of being programmed and performing service functions to restore capability in defi-
41 cient batteries; and

42 (c) Not intended or marketed to be used on a daily basis for the purpose of charging batteries.

43 (6) “Battery backup” or “uninterruptible power supply charger (UPS)” means a small battery
44 charger system that is voltage and frequency dependent (VFD) and designed to provide power to an
45 end-use product in the event of a power outage, including a UPS as defined in International

1 Electrotechnical Commission (IEC) publication 62040-3 (March 2011 edition), where the output of the
2 VFD UPS is dependent on changes in AC input voltage and frequency and is not intended to provide
3 additional corrective functions, such as those relating to the use of tapped transformers.

4 (7)(a) "Battery charger system" means a battery charger coupled with its batteries, including:

5 (A) Electronic devices with a battery that are normally charged from AC line voltage or DC
6 input voltage through an internal or external power supply and a dedicated battery charger;

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

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

10 (D) Devices whose primary function is to charge batteries, along with the batteries the devices
11 are designed to charge, including chargers for power tool batteries and chargers for automotive,
12 AA, AAA, C, D, or nine-volt rechargeable batteries and chargers for batteries used in larger indus-
13 trial motive equipment and à la carte chargers.

14 (b) "Battery charger system" does not mean a battery charger:

15 (A) Used to charge a motor vehicle that is powered by an electric motor drawing current from
16 rechargeable storage batteries, fuel cells or other portable sources of electrical current, including
17 a nonelectrical source of power designed to charge batteries and components thereof, except for
18 battery chargers for forklifts, electric personal assistive mobility devices or low-speed vehicles;

19 (B) That is classified as a Class II or Class III device for human use under the Federal Food,
20 Drug, and Cosmetic Act, as in effect on the effective date of this 2013 Act, and that requires listing
21 and approval as a medical device;

22 (C) Used to charge a battery or batteries in an illuminated exit sign, including those products
23 that are a combination illuminated exit sign and emergency egress lighting;

24 (D) With input that is three phases of line-to-line 300 volts root mean square or more and is
25 designed for a stationary power application;

26 (E) That is a battery analyzer; or

27 (F) That is a voltage independent or voltage and frequency independent uninterruptible power
28 supply as defined in International Electrotechnical Commission (IEC) publication 62040-3 (March
29 2011 edition).

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

34 (8) "Battery maintenance mode" means the mode of operation when the battery charger system
35 is connected to the main electricity supply and the battery is fully charged and connected to the
36 charger.

37 (9) "Bottle-type water dispenser" means a water dispenser that uses a bottle or reservoir as the
38 source of potable water.

39 (10) "Charge return factor" means the number of ampere-hours returned to the battery during
40 the charge cycle divided by the number of ampere-hours delivered by the battery during discharge.

41 (11) "Combination television" means a system in which a television or television monitor and
42 an additional device or devices, including a video cassette recorder, are combined into a single unit
43 in which the additional device or devices are included in the television casing.

44 (12) "Commercial clothes washer" means a soft mount horizontal-axis or vertical-axis clothes
45 washer that:

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

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

4 (13)(a) "Commercial hot food holding cabinet" means an appliance that is a heated, fully-
5 enclosed compartment with one or more solid doors and is designed to maintain the temperature of
6 hot food that has been cooked in a separate appliance.

7 (b) "Commercial hot food holding cabinet" does not include heated glass merchandising cabinets,
8 drawer warmers or cook-and-hold appliances.

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

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

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

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

22 (16)(a) "Compact audio product," also known as a mini, mid, micro or shelf audio system, means
23 an integrated audio system encased in a single housing that includes an amplifier and radio tuner
24 and attached or separable speakers that can reproduce audio from one or more of the following
25 media:

26 (A) Magnetic tape;

27 (B) Compact disc;

28 (C) DVD; or

29 (D) Flash memory.

30 (b) "Compact audio product" does not include products that can be independently powered by
31 internal batteries, have a powered external satellite antenna or can provide a video output signal.

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

34 (18) "Component television" means a television composed of two or more separate components,
35 including separate display device and tuner, marketed as a television under one model or system
36 designation and having one or more power cords.

37 (19) "Computer monitor" means an analog or digital device that is designed primarily for the
38 display of computer-generated signals and that is not marketed for use as a television.

39 (20) "Digital versatile disc" or "DVD" means a laser-encoded plastic medium capable of storing
40 a large amount of digital audio, video and computer data.

41 (21)(a) "Digital versatile disc player" or "digital versatile disc recorder" means a commercially
42 available electronic product encased in a single housing that includes an integral power supply and
43 for which the sole purpose is, respectively, the decoding and the production or recording of digitized
44 video signal on a DVD.

45 (b) "Digital versatile disc recorder" does not include models that have an electronic program-

1 ming guide function that provides an interactive, on-screen menu of television listings and down-
2 loads program information from the vertical blanking interval of a regular television signal.

3 (22) "Electronic programming guide" means an application that provides an interactive, on-
4 screen menu of television listings that downloads program information from the vertical blanking
5 interval of a regular television signal.

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

10 (24)(a) **"High light output double-ended quartz halogen lamp" means a lamp that:**

11 **(A) Is designed for general outdoor lighting purposes;**

12 **(B) Contains a tungsten filament;**

13 **(C) Has a rated initial lumen value of greater than 6,000 and less than 40,000 lumens;**

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

15 **(E) Has a maximum overall length between four and 11 inches;**

16 **(F) Has a nominal diameter less than three-fourths inch (T6); and**

17 **(G) Is designed to be operated at a voltage between 110 volts and 200 volts or is designed**
18 **to be operated at a voltage between 235 volts and 300 volts.**

19 **(b) "High light output double-ended quartz halogen lamp" does not mean a lamp that is:**

20 **(A) A tubular quartz infrared heat lamp; or**

21 **(B) Marked and marketed as a stage and studio lamp with a rated life of 500 hours or**
22 **less.**

23 [(24)] (25) "Illuminated exit sign" means an internally illuminated sign that is designed to be
24 permanently fixed in place to identify a building exit, that consists of an electrically powered inte-
25 gral light source that illuminates the legend "EXIT" and any directional indicators and that pro-
26 vides contrast between the legend, any directional indicators and the background.

27 [(25)] (26) "Inductive charger system" means a small battery charger system that transfers
28 power to the charger through magnetic or electric induction.

29 [(26)(a)] (27)(a) "Large battery charger system" means a battery charger system with a rated
30 input power of more than two kilowatts.

31 (b) "Large battery charger system" does not mean a battery charger system for golf carts.

32 [(27)] (28) "Metal halide lamp" means a high-intensity discharge lamp in which the major portion
33 of the light is produced by radiation of metal halides and their products of dissociation, possibly in
34 combination with metallic vapors.

35 [(28)] (29) "Metal halide lamp fixture" means a light fixture designed to be operated with a metal
36 halide lamp and a ballast for a metal halide lamp.

37 [(29)] (30) "Multiport charger" means a battery charger that is capable of simultaneously
38 charging two or more batteries and that may have multivoltage capability, allowing two or more
39 batteries of different voltages to charge simultaneously.

40 [(30)] (31) "No battery mode" means the mode of operation in which a battery charger is con-
41 nected to the main electricity supply and the battery is not connected to the charger.

42 [(31)] (32) "Pass-through cabinet" means a commercial refrigerator or freezer with hinged or
43 sliding doors on both the front and rear of the unit.

44 [(32)] (33) "Portable electric spa" means a factory-built electric spa or hot tub supplied with
45 equipment for heating and circulating water.

1 [(33)] **(34)** “Power conversion efficiency” means the instantaneous DC output power of the bat-
2 tery charger system divided by the simultaneous utility AC input power.

3 [(34)] **(35)** “Probe-start metal halide lamp ballast” means a ballast used to operate metal halide
4 lamps that does not contain an igniter and that instead starts metal halide lamps by using a third
5 starting electrode probe in the arc tube.

6 [(35)] **(36)** “Reach-in cabinet” means a commercial refrigerator or freezer with hinged or sliding
7 doors or lids, other than roll-in or roll-through cabinets or pass-through cabinets.

8 [(36)] **(37)** “Roll-in cabinet” means a commercial refrigerator or freezer with hinged or sliding
9 doors that allow wheeled racks to be rolled into the unit.

10 [(37)] **(38)** “Roll-through cabinet” means a commercial refrigerator or freezer with hinged or
11 sliding doors on two sides of the cabinet that allow wheeled racks to be rolled through the unit.

12 [(38)] **(39)** “Selected input mode” means the input port selected that the television uses as a
13 source to produce a visible or audible output and that is required for televisions with multiple pos-
14 sible inputs, including coaxial, composite, S-Video, HDMI and component connectors.

15 [(39)(a)] **(40)(a)** “Single-voltage external AC to DC power supply” means a device, other than a
16 product with batteries or battery packs that physically attach directly to the power supply unit, a
17 product with a battery chemistry or type selector switch and indicator light or a product with a
18 battery chemistry or type selector switch and a state of charge meter, that:

19 (A) Is designed to convert line voltage alternating current input into lower voltage direct cur-
20 rent output;

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

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

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

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

27 (F) Has a nameplate output power less than or equal to 250 watts.

28 (b) “Single-voltage external AC to DC power supply” does not include power supplies that are
29 classified as devices for human use under the Federal Food, Drug and Cosmetic Act, 21 U.S.C. 360c.

30 [(40)] **(41)** “Small battery charger system” means:

31 (a) A battery charger system with a rated input power of two kilowatts or less.

32 (b) A golf cart battery charger system, regardless of input power or battery capacity.

33 [(41)] **(42)** “State-regulated incandescent reflector lamp” means a lamp that is not colored or
34 designed for rough or vibrating service applications, that has an inner reflective coating on the
35 outer bulb to direct the light, that has an E26 medium screw base, that has a rated voltage or
36 voltage range that lies at least partially within 115 to 130 volts and that falls into one of the fol-
37 lowing categories:

38 (a) A bulged reflector or elliptical reflector bulb shape that has a diameter that equals or ex-
39 ceeds 2.25 inches; or

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

42 [(42)(a)] **(43)(a)** “Television” means an analog or digital device, including a combination tele-
43 vision, a television monitor, a component television and any unit marketed as a television, designed
44 for the display and reception of a terrestrial, satellite, cable or Internet protocol or other broadcast
45 or recorded transmission of analog or digital video or audio signals.

(b) "Television" does not mean a computer monitor.

[(43)] (44) "Television monitor" means a television that does not have an internal tuner, receiver or playback device.

[(44)] (45) "Television standby-passive mode" means the mode of operation in which the television is connected to a power source, produces neither sound nor picture but can be switched into another mode with the remote control unit or via an internal signal.

[(45)] (46) "Torchiere" means a portable electric lighting fixture with a reflective bowl that directs light upward so as to produce indirect illumination.

[(46)] (47) "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.

[(47)] (48) "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.

[(48)] (49) "USB charger system" means a small battery charger system that uses a universal serial bus (USB) connector as the only power source to charge the battery, and is packaged with an external power supply rated with a voltage output of five volts and a power output of 15 watts or less.

[(49)] (50) "Walk-in refrigerator" and "walk-in freezer" mean a space refrigerated to temperatures, respectively, at or above and below 32° F that can be walked into.

[(50)] (51) "Water dispenser" means a factory-made assembly that mechanically cools and heats potable water and dispenses the cooled or heated water by integral or remote means.

MINIMUM ENERGY EFFICIENCY STANDARDS

SECTION 3. ORS 469.233 is amended to read:

469.233. 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 cooling	Harvest rate (lbs. ice/24 hrs.)	Maximum energy use (kWh/100 lbs.)	Maximum condenser water use (gallons/100 lbs. ice)
Ice-making head	water	<500	7.80 -.0055H	200 -.022H
		≥ 500<1436	5.58 -.0011H	200 -.022H
		≥ 1436	4.0	200 -.022H
Ice-making head	air	<450	10.26 -.0086H	Not applicable
		≥ 450	6.89 -.0011H	Not applicable
Remote condensing but not remote				

1	compressor	air	<1000	8.85 -.0038	Not applicable
2			≥ 1000	5.10	Not applicable
3	Remote condensing				
4	and remote				
5	compressor	air	<934	8.85 -.0038H	Not applicable
6			≥ 934	5.30	Not applicable
7	Self-contained				
8	models	water	<200	11.40 -.0190H	191 -.0315H
9			≥ 200	7.60	191 -.0315H
10	Self-contained				
11	models	air	<175	18.0 -.0469H	Not applicable
12			≥ 175	9.80	Not applicable

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

15
 16

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

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

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

28 (4)(a) Commercial refrigerators or freezers must meet the applicable requirements listed in the
 29 following table:

30
 31

32 Equipment Type	33 Doors	34 Maximum Daily 35 Energy Consumption (kWh)
36 Reach-in cabinets, pass-through 37 cabinets and roll-in or roll-through 38 cabinets that are refrigerators	39 Solid 40 Transparent	41 0.10V + 2.04 42 0.12V + 3.34
43 Reach-in cabinets, pass-through 44 cabinets and roll-in or roll-through 45 cabinets that are “pulldown” 46 refrigerators	47 Transparent	48 0.126V + 3.51
49 Reach-in cabinets, pass-through 50 cabinets and roll-in or roll-through	51 Solid	52 0.40V + 1.38

1	cabinets that are freezers	Transparent	$0.75V + 4.10$
2			
3	Reach-in cabinets that are		
4	refrigerator-freezers with an		
5	AV of 5.19 or higher	Solid	$0.27AV - 0.71$
6			
7	kWh = kilowatt hours		
8			
9	V = total volume (ft ³)		
10			
11	AV = adjusted volume = $1.63 \times \text{freezer volume (ft}^3) + \text{refrigerator volume (ft}^3)$		

(b) For purposes of this subsection:

(A) "Pull-down" 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:

Product or compartment type	Integrated average product temperature in degrees Fahrenheit
Refrigerator	38 ± 2
Freezer	0 ± 2

(5) 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.

(6) 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.

(7)(a) Single-voltage external AC to DC power supplies manufactured on or after July 1, 2008, must meet the requirements in the following table:

1		
2	Nameplate output	Minimum Efficiency in Active Mode
3		
4	<1 Watt	0.5 * Nameplate Output
5	≥ 1 Watt	
6	and ≤ 51 Watts	0.09 * Ln (Nameplate Output) + 0.5
7	> 51 Watts	0.85
8		
9		Maximum Energy Consumption in No-Load Mode
10		
11	Any Output	0.5 Watts
12		
13		

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

16
 17 (b) For the purposes of this subsection, efficiency of single-voltage external AC to DC power
 18 supplies shall be measured in accordance with the United States Environmental Protection Agency's
 19 "Test Method for Calculating the Energy Efficiency of Single-Voltage External AC to DC and AC
 20 to AC Power Supplies," dated August 11, 2004. The efficiency in the active and no-load modes of
 21 power supplies shall be tested only at 115 volts at 60 Hz.

22 (8)(a) State-regulated incandescent reflector lamps manufactured on or after January 1, 2008,
 23 must meet the minimum efficiencies in the following table:

26 Wattage	27 Minimum average lamp efficiency (lumens per watt)
29 40 - 50	10.5
30 51 - 66	11.0
31 67 - 85	12.5
32 86 - 115	14.0
33 116 - 155	14.5
34 156 - 205	15.0

36
 37 (b) Lamp efficiency shall be measured in accordance with the applicable test method found in
 38 10 C.F.R. 430.23.

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

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

1	Module Type	Maximum Wattage	Nominal Wattage
2		(at 74°C)	(at 25°C)
3			
4	12" red ball (or 300 mm circular)	17	11
5	8" red ball (or 200 mm circular)	13	8
6	12" red arrow (or 300 mm arrow)	12	9
7			
8	12" green ball (or 300 mm circular)	15	15
9	8" green ball (or 200 mm circular)	12	12
10	12" green arrow (or 300 mm arrow)	11	11

13 (b) For purposes of this subsection, maximum wattage and nominal wattage shall be measured
 14 in accordance with and under the testing conditions specified by the Institute for Transportation
 15 Engineers "Interim LED Purchase Specification, Vehicle Traffic Control Signal Heads, Part 2: Light
 16 Emitting Diode Vehicle Traffic Signal Modules."

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

19 (12) Bottle-type water dispensers designed for dispensing both hot and cold water may not have
 20 standby energy consumption greater than 1.2 kilowatt-hours per day, as measured in accordance
 21 with the test criteria contained in Version 1 of the United States Environmental Protection
 22 Agency's "Energy Star Program Requirements for Bottled Water Coolers," except that units with
 23 an integral, automatic timer may not be tested using Section D, "Timer Usage," of the test criteria.

24 (13) Commercial hot food holding cabinets shall have a maximum idle energy rate of 40 watts
 25 per cubic foot of interior volume, as determined by the "Idle Energy Rate-dry Test" in ASTM
 26 F2140-01, "Standard Test Method for Performance of Hot Food Holding Cabinets" published by
 27 ASTM International. Interior volume shall be measured in accordance with the method shown in the
 28 United States Environmental Protection Agency's "Energy Star Program Requirements for Com-
 29 mercial Hot Food Holding Cabinets," as in effect on August 15, 2003.

30 (14) Compact audio products may not use more than two watts in standby passive mode for those
 31 without a permanently illuminated clock display and four watts in standby passive mode for those
 32 with a permanently illuminated clock display, as measured in accordance with International
 33 Electrotechnical Commission (IEC) test method 62087:2002(E), "Methods of Measurement for the
 34 Power Consumption of Audio, Video, and Related Equipment."

35 (15) Digital versatile disc players and digital versatile disc recorders may not use more than
 36 three watts in standby passive mode, as measured in accordance with International Electrotechnical
 37 Commission (IEC) test method 62087:2002(E), "Methods of Measurement for the Power Consumption
 38 of Audio, Video, and Related Equipment."

39 (16) Portable electric spas may not have a standby power greater than $5(V^{2/3})$ Watts where
 40 V=the total volume in gallons, as measured in accordance with the test method for portable electric
 41 spas contained in the California Code of Regulations, Title 20, Division 2, Chapter 4, section 1604.

42 (17)(a) Walk-in refrigerators and walk-in freezers with the applicable motor types shown in the
 43 table below shall include the required components shown.

1	Motor Type	Required Components
2		
3	All	Interior lights: light sources with an efficacy of 45
4		lumens per watt or more, including ballast losses
5		(if any)
6		
7	All	Automatic door closers that firmly close all
8		reach-in doors
9		
10	All	Automatic door closers that firmly close all walk-in
11		doors no wider than 3.9 feet and no higher than
12		6.9 feet that have been closed to within one
13		inch of full closure
14		
15	All	Wall, ceiling and door insulation at least R-28 for
16		refrigerators and at least R-34 for freezers
17		
18	All	Floor insulation at least R-28 for freezers (no
19		requirement for refrigerators)
20		
21	Condenser fan motors of	(i) Electronically commutated motors,
22	under one horsepower	(ii) Permanent split capacitor-type motors, or
23		(iii) Polyphase motors of ½ horsepower or more
24		
25	Single-phase evaporator	Electronically commutated motors
26	fan motors of under one	
27	horsepower and less	
28	than 460 volts	
29		

30

31 (b) In addition to the requirements in paragraph (a) of this subsection, walk-in refrigerators and
32 walk-in freezers with transparent reach-in doors shall meet the following requirements:

33 (A) Transparent reach-in doors shall be of triple pane glass with either heat-reflective treated
34 glass or gas fill;

35 (B) If the appliance has an anti-sweat heater without anti-sweat controls, the appliance shall
36 have a total door rail, glass and frame heater power draw of no more than 40 watts if it is a freezer
37 or 17 watts if it is a refrigerator per foot of door frame width; and

38 (C) If the appliance has an anti-sweat heater with anti-sweat heat controls, and the total door
39 rail, glass, and frame heater power draw is 40 watts or greater per foot of door frame width if it is
40 a freezer or 17 watts or greater per foot of door frame width if it is a refrigerator, the anti-sweat
41 heat controls shall reduce the energy use of the anti-sweat heater in an amount corresponding to
42 the relative humidity in the air outside the door or to the condensation on the inner glass pane.

43 **(18) A television must automatically enter television standby-passive mode after a maxi-**
44 **imum of 15 minutes without video or audio input on the selected input mode. A television**
45 **must enter television standby-passive mode when turned off with the remote control unit**

1 or via an internal signal. The peak luminance of a television in home mode, or in the default
 2 mode as shipped, may not be less than 65 percent of the peak luminance of the retail mode
 3 or the brightest selectable preset mode of the television. A television must meet the stan-
 4 dards in the following table:

Television Standby-passive Mode Power Usage (Watts)	Maximum On Mode Power Usage (P in Watts, A is Viewable Screen area)	Minimum Power Factor for (P ≥ 100W)
1 W	$P \leq 0.12 \times A + 25$	0.9

17 (19)(a) Large battery charger systems must meet the minimum efficiencies in the fol-
 18 lowing table:

Standards for Large Battery Charger Systems		
Performance Parameter	Standard	
Charge Return		
Factor	100 percent Depth of Discharge	$Crf \leq 1.10$
	80 percent Depth of Discharge	$Crf \leq 1.10$
	40 percent Depth of Discharge	$Crf \leq 1.15$
Power Conversion		
Efficiency	≥ 89 percent	
Power Factor	≥ 0.90	
Battery		
Maintenance		
Mode Power	$\leq 10 + 0.0012E_b$ W	

1 (E_b = battery
2 capacity of
3 tested battery)

4

5 No Battery

6 Mode Power ≤ 10 W

7

8

9 (b)(A) As described in subparagraph (B) of this paragraph, inductive charger systems and
10 small battery charger systems must meet the minimum energy efficiency standards in the
11 following table:

12

13

14 **Standards for Inductive and Small Battery Charger Systems**

15

Performance

Standard

16

Parameter

17

18 **Maximum 24-hour**
19 **charge and**

For E_b of 2.5 Wh or less: $16 \times N$

20 **maintenance**

For $E_b > 2.5$ Wh and

21 **energy (Wh)**

≤ 100 Wh: $12 \times N + 1.6E_b$

22 (E_b = capacity

23 of all batteries in

For $E_b > 100$ Wh and

24 ports and N =

≤ 1000 Wh: $22 \times N + 1.5E_b$

25 number of charger

26 ports)

For $E_b > 1000$ Wh:

27

$36.4 \times N + 1.486E_b$

28

29 **Battery Maintenance**

**The sum of battery maintenance mode power and no
battery mode power must be less than or equal to:**

30 **Mode Power and No**

31 **Battery Mode**

$1 \times N + 0.0021 \times E_b$

32 **Power (W)**

33 **Power Factor**

34 (E_b = capacity

35 of all batteries in

36 ports and N =

37 number of charger

38 ports)

39

40

41 (B) The requirements in subparagraph (A) of this paragraph must be met by:

42 (i) Small battery charger systems for sale at retail that are not USB charger systems
43 with a battery capacity of 20 watt-hours or more and that are manufactured on or after
44 January 1, 2014.

45 (ii) Small battery charger systems for sale at retail that are USB charger systems with

1 a battery capacity of 20 watt-hours or more and that are manufactured on or after January
2 1, 2014.

3 (iii) Small battery charger systems that are not sold at retail and that are manufactured
4 on or after January 1, 2017.

5 (iv) Inductive charger systems manufactured on or after January 1, 2014, unless the in-
6 ductive charger system uses less than one watt in battery maintenance mode, less than one
7 watt in no battery mode and an average of one watt or less over the duration of the charge
8 and battery maintenance mode test.

9 (v) Battery backups and uninterruptible power supplies, manufactured on or after Janu-
10 ary 1, 2014, for small battery charger systems for sale at retail, which may not consume
11 more than 0.8 (0.0021xE_b) watts in battery maintenance mode, where (E_b) is the battery ca-
12 pacity in watt-hours.

13 (vi) Small battery charger systems not sold at retail, manufactured after January 1, 2017,
14 which may not consume more than 0.8 (0.0021xE_b) watts in battery maintenance mode, where
15 (E_b) is the battery capacity in watt-hours.

16 (C) The requirements in subparagraph (A) of this paragraph do not need to be met by
17 an à la carte charger that is:

18 (i) Provided separately from and subsequent to the sale of a small battery charger system
19 described in this paragraph;

20 (ii) Necessary as a replacement for, or as a replacement component of, a small battery
21 charger system; and

22 (iii) Provided by a manufacturer directly to a consumer or to a service or repair facility.

23 **SECTION 4.** ORS 469.233, as amended by section 3 of this 2013 Act, is amended to read:

24 469.233. The following minimum energy efficiency standards for new products are established:

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

Equipment type	Type of cooling	Harvest rate (lbs. ice/24 hrs.)	Maximum energy use (kWh/100 lbs.)	Maximum condenser water use (gallons/100 lbs. ice)
Ice-making head	water	<500	7.80 -.0055H	200 -.022H
		≥ 500<1436	5.58 -.0011H	200 -.022H
		≥ 1436	4.0	200 -.022H
Ice-making head	air	<450	10.26 -.0086H	Not applicable
		≥ 450	6.89 -.0011H	Not applicable
Remote condensing but not remote compressor	air	<1000	8.85 -.0038	Not applicable
		≥ 1000	5.10	Not applicable
Remote condensing and remote compressor	air	<934	8.85 -.0038H	Not applicable

1			≥ 934	5.30	Not applicable
2	Self-contained				
3	models	water	< 200	11.40 -0.0190H	191 -0.0315H
4			≥ 200	7.60	191 -0.0315H
5	Self-contained				
6	models	air	< 175	18.0 -0.0469H	Not applicable
7			≥ 175	9.80	Not applicable

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

11
 12 (b) For purposes of this subsection, automatic commercial ice cube machines shall be tested in
 13 accordance with the ARI 810-2003 test method as published by the Air-Conditioning and Refriger-
 14 ation Institute. Ice-making heads include all automatic commercial ice cube machines that are not
 15 split system ice makers or self-contained models as defined in ARI 810-2003.

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

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

23 (4)(a) Commercial refrigerators or freezers must meet the applicable requirements listed in the
 24 following table:

27	Equipment Type	Doors	Maximum Daily Energy Consumption (kWh)
30	Reach-in cabinets, pass-through		
31	cabinets and roll-in or roll-through	Solid	$0.10V + 2.04$
32	cabinets that are refrigerators	Transparent	$0.12V + 3.34$
34	Reach-in cabinets, pass-through		
35	cabinets and roll-in or roll-through		
36	cabinets that are “pulldown”		
37	refrigerators	Transparent	$0.126V + 3.51$
39	Reach-in cabinets, pass-through		
40	cabinets and roll-in or roll-through	Solid	$0.40V + 1.38$
41	cabinets that are freezers	Transparent	$0.75V + 4.10$
43	Reach-in cabinets that are		
44	refrigerator-freezers with an		
45	AV of 5.19 or higher	Solid	$0.27AV - 0.71$

1 kWh = kilowatt hours

2
3 V = total volume (ft³)

4
5 AV = adjusted volume = 1.63 x freezer volume (ft³) + refrigerator volume (ft³)

6
7
8 (b) For purposes of this subsection:

9 (A) "Pull-down" designates products designed to take a fully stocked refrigerator with beverages
10 at 90 degrees Fahrenheit and cool those beverages to a stable temperature of 38 degrees Fahrenheit
11 within 12 hours or less.

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

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

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

20
21

22 Product or compartment type	23 Integrated average product temperature 24 in degrees Fahrenheit
25 Refrigerator	26 38 ± 2
26 Freezer	27 0 ± 2

28

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

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

37 (7)(a) Single-voltage external AC to DC power supplies manufactured on or after July 1, 2008,
38 must meet the requirements in the following table:

39
40

41 Nameplate output	42 Minimum Efficiency in Active Mode
43 <1 Watt	44 0.5 * Nameplate Output
44 ≥ 1 Watt	
45 and ≤ 51 Watts	0.09 * Ln (Nameplate Output) + 0.5

1 > 51 Watts 0.85

2

3

Maximum Energy Consumption in No-Load Mode

4

5 Any Output 0.5 Watts

6

7

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

9

10

11 (b) For the purposes of this subsection, efficiency of single-voltage external AC to DC power
 12 supplies shall be measured in accordance with the United States Environmental Protection Agency's
 13 "Test Method for Calculating the Energy Efficiency of Single-Voltage External AC to DC and AC
 14 to AC Power Supplies," dated August 11, 2004. The efficiency in the active and no-load modes of
 15 power supplies shall be tested only at 115 volts at 60 Hz.

16 (8)(a) State-regulated incandescent reflector lamps manufactured on or after January 1, 2008,
 17 must meet the minimum efficiencies in the following table:

18

19

20 Wattage	21 Minimum average lamp efficiency (lumens per watt)
23 40 - 50	10.5
24 51 - 66	11.0
25 67 - 85	12.5
26 86 - 115	14.0
27 116 - 155	14.5
28 156 - 205	15.0

29

30

31 (b) Lamp efficiency shall be measured in accordance with the applicable test method found in
 32 10 C.F.R. 430.23.

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

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

38

39

40 Module Type	41 Maximum Wattage (at 74°C)	42 Nominal Wattage (at 25°C)
43 12" red ball (or 300 mm circular)	17	11
44 8" red ball (or 200 mm circular)	13	8
45 12" red arrow (or 300 mm arrow)	12	9

1	12" green ball (or 300 mm circular)	15	15
2	8" green ball (or 200 mm circular)	12	12
3	12" green arrow (or 300 mm arrow)	11	11

(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."

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

(12) Bottle-type water dispensers designed for dispensing both hot and cold water may not have standby energy consumption greater than 1.2 kilowatt-hours per day, as measured in accordance with the test criteria contained in Version 1 of the United States Environmental Protection Agency's "Energy Star Program Requirements for Bottled Water Coolers," except that units with an integral, automatic timer may not be tested using Section D, "Timer Usage," of the test criteria.

(13) Commercial hot food holding cabinets 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 F2140-01, "Standard Test Method for Performance of Hot Food Holding Cabinets" published by ASTM International. Interior volume shall be measured in accordance with the method shown in the United States Environmental Protection Agency's "Energy Star Program Requirements for Commercial Hot Food Holding Cabinets," as in effect on August 15, 2003.

(14) Compact audio products may not use more than two watts in standby passive mode for those without a permanently illuminated clock display and four watts in standby passive mode for those with a permanently illuminated clock display, as measured in accordance with International Electrotechnical Commission (IEC) test method 62087:2002(E), "Methods of Measurement for the Power Consumption of Audio, Video, and Related Equipment."

(15) Digital versatile disc players and digital versatile disc recorders may not use more than three watts in standby passive mode, as measured in accordance with International Electrotechnical Commission (IEC) test method 62087:2002(E), "Methods of Measurement for the Power Consumption of Audio, Video, and Related Equipment."

(16) Portable electric spas may not have a standby power greater than $5(V^{2/3})$ Watts where V=the total volume in gallons, as measured in accordance with the test method for portable electric spas contained in the California Code of Regulations, Title 20, Division 2, Chapter 4, section 1604.

(17)(a) Walk-in refrigerators and walk-in freezers with the applicable motor types shown in the table below shall include the required components shown.

Motor Type	Required Components
All	Interior lights: light sources with an efficacy of 45 lumens per watt or more, including ballast losses (if any)
All	Automatic door closers that firmly close all

1		reach-in doors
2		
3	All	Automatic door closers that firmly close all walk-in
4		doors no wider than 3.9 feet and no higher than
5		6.9 feet that have been closed to within one
6		inch of full closure
7		
8	All	Wall, ceiling and door insulation at least R-28 for
9		refrigerators and at least R-34 for freezers
10		
11	All	Floor insulation at least R-28 for freezers (no
12		requirement for refrigerators)
13		
14	Condenser fan motors of	(i) Electronically commutated motors,
15	under one horsepower	(ii) Permanent split capacitor-type motors, or
16		(iii) Polyphase motors of ½ horsepower or more
17		
18	Single-phase evaporator	Electronically commutated motors
19	fan motors of under one	
20	horsepower and less	
21	than 460 volts	

22
23

24 (b) In addition to the requirements in paragraph (a) of this subsection, walk-in refrigerators and
25 walk-in freezers with transparent reach-in doors shall meet the following requirements:

26 (A) Transparent reach-in doors shall be of triple pane glass with either heat-reflective treated
27 glass or gas fill;

28 (B) If the appliance has an anti-sweat heater without anti-sweat controls, the appliance shall
29 have a total door rail, glass and frame heater power draw of no more than 40 watts if it is a freezer
30 or 17 watts if it is a refrigerator per foot of door frame width; and

31 (C) If the appliance has an anti-sweat heater with anti-sweat heat controls, and the total door
32 rail, glass, and frame heater power draw is 40 watts or greater per foot of door frame width if it is
33 a freezer or 17 watts or greater per foot of door frame width if it is a refrigerator, the anti-sweat
34 heat controls shall reduce the energy use of the anti-sweat heater in an amount corresponding to
35 the relative humidity in the air outside the door or to the condensation on the inner glass pane.

36 (18) A television must automatically enter television standby-passive mode after a maximum of
37 15 minutes without video or audio input on the selected input mode. A television must enter tele-
38 vision standby-passive mode when turned off with the remote control unit or via an internal signal.
39 The peak luminance of a television in home mode, or in the default mode as shipped, may not be less
40 than 65 percent of the peak luminance of the retail mode or the brightest selectable preset mode
41 of the television. A television must meet the standards in the following table:

42		
43		
44		Maximum On
45	Television	Mode Power

1	Standby-	Usage (P in	Minimum
2	passive Mode	Watts, A is	Power
3	Power Usage	Viewable	Factor for
4	(Watts)	Screen area)	(P ≥ 100W)
5			
6	1 W	$P \leq 0.12 \times A + 25$	0.9

(19)(a) Large battery charger systems must meet the minimum efficiencies in the following table:

Standards for Large Battery Charger Systems			
Performance	Standard		
Parameter			
Charge Return			
Factor	100 percent	Crf ≤	1.10
	Depth of		
	Discharge		
	80 percent	Crf ≤	1.10
	Depth of		
	Discharge		
	40 percent	Crf ≤	1.15
	Depth of		
	Discharge		
Power Conversion			
Efficiency		≥	89 percent
Power Factor		≥	0.90
Battery Maintenance			
Mode Power		≤	$10 + 0.0012E_b$ W
(E_b = battery			
capacity of			
tested battery)			
No Battery			
Mode Power		≤	10 W

(b)(A) As described in subparagraph (B) of this paragraph, inductive charger systems and small battery charger systems must meet the minimum energy efficiency standards in the following table:

1		
2		
3		Standards for Inductive and Small Battery Charger Systems
4	Performance	Standard
5	Parameter	
6		
7	Maximum 24-hour	For E_b of 2.5 Wh or less: $16 \times N$
8	charge and	
9	maintenance	For $E_b > 2.5$ Wh and
10	energy (Wh)	≤ 100 Wh: $12 \times N + 1.6E_b$
11	(E_b = capacity	
12	of all batteries in	For $E_b > 100$ Wh and
13	ports and N =	≤ 1000 Wh: $22 \times N + 1.5E_b$
14	number of charger	
15	ports)	For $E_b > 1000$ Wh:
16		$36.4 \times N + 1.486E_b$
17		
18	Battery Maintenance	The sum of battery maintenance mode power and no
19	Mode Power and No	battery mode power must be less than or equal to:
20	Battery Mode	$1 \times N + 0.0021 \times E_b$
21	Power (W)	
22	Power Factor	
23	(E_b = capacity	
24	of all batteries in	
25	ports and N =	
26	number of charger	
27	ports)	

- 28
- 29
- 30 (B) The requirements in subparagraph (A) of this paragraph must be met by:
- 31 (i) Small battery charger systems for sale at retail that are not USB charger systems with a
- 32 battery capacity of 20 watt-hours or more and that are manufactured on or after January 1, 2014.
- 33 (ii) Small battery charger systems for sale at retail that are USB charger systems with a battery
- 34 capacity of 20 watt-hours or more and that are manufactured on or after January 1, 2014.
- 35 (iii) Small battery charger systems that are not sold at retail that are manufactured on or after
- 36 January 1, 2017.
- 37 (iv) Inductive charger systems manufactured on or after January 1, 2014, unless the inductive
- 38 charger system uses less than one watt in battery maintenance mode, less than one watt in no bat-
- 39 tery mode and an average of one watt or less over the duration of the charge and battery mainte-
- 40 nance mode test.
- 41 (v) Battery backups and uninterruptible power supplies, manufactured on or after January 1,
- 42 2014, for small battery charger systems for sale at retail, which may not consume more than 0.8
- 43 ($0.0021 \times E_b$) watts in battery maintenance mode, where (E_b) is the battery capacity in watt-hours.
- 44 (vi) Small battery charger systems not sold at retail, manufactured after January 1, 2017, which
- 45 may not consume more than 0.8 ($0.0021 \times E_b$) watts in battery maintenance mode, where (E_b) is the

1 battery capacity in watt-hours.

2 (C) The requirements in subparagraph (A) of this paragraph do not need to be met by an à la
3 carte charger that is:

4 (i) Provided separately from and subsequent to the sale of a small battery charger system de-
5 scribed in this paragraph;

6 (ii) Necessary as a replacement for, or as a replacement component of, a small battery charger
7 system; and

8 (iii) Provided by a manufacturer directly to a consumer or to a service or repair facility.

9 **(20) A high light output double-ended quartz halogen lamp must have a minimum effi-
10 ciency of:**

11 **(a) 27 lumens per watt for lamps with a minimum rated initial lumen value of greater
12 than 6,000 lumens and a maximum initial lumen value of 15,000 lumens; or**

13 **(b) 34 lumens per watt for lamps with a rated initial lumen value of greater than 15,000
14 and less than 40,000 lumens.**

15
16 **SALE**

17
18 **SECTION 5.** ORS 469.238 is amended to read:

19 469.238. (1) Except as provided in subsection (2) of this section, a person may not sell or offer
20 for sale a new commercial clothes washer, commercial prerinse spray valve, commercial refrigerator
21 or freezer, illuminated exit sign, single-voltage external AC to DC power supply, state-regulated in-
22 candescent reflector lamp, torchiere, traffic signal module, automatic commercial ice cube machine,
23 metal halide lamp fixture, unit heater, bottle-type water dispenser, commercial hot food holding
24 cabinet, compact audio product, digital versatile disc player, digital versatile disc recorder, portable
25 electric spa, walk-in refrigerator, [or] walk-in freezer, **television, inductive charger system, large
26 battery charger system or small battery charger system** unless the energy efficiency of the new
27 product meets or exceeds the minimum energy efficiency standards specified in ORS 469.233.

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

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

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

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

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

35 **SECTION 6.** ORS 469.238, as amended by section 5 of this 2013 Act, is amended to read:

36 469.238. (1) Except as provided in subsection (2) of this section, a person may not sell or offer
37 for sale a new commercial clothes washer, commercial prerinse spray valve, commercial refrigerator
38 or freezer, illuminated exit sign, single-voltage external AC to DC power supply, state-regulated in-
39 candescent reflector lamp, torchiere, traffic signal module, automatic commercial ice cube machine,
40 metal halide lamp fixture, unit heater, bottle-type water dispenser, commercial hot food holding
41 cabinet, compact audio product, digital versatile disc player, digital versatile disc recorder, portable
42 electric spa, walk-in refrigerator, walk-in freezer, television, inductive charger system, large battery
43 charger system, [or] small battery charger system **or high light output double-ended quartz
44 halogen lamp** unless the energy efficiency of the new product meets or exceeds the minimum energy
45 efficiency standards specified in ORS 469.233.

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

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

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

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

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

8
9 **INSTALLATION**

10
11 **SECTION 7.** ORS 469.239 is amended to read:

12 469.239. (1) Except as provided in subsection (2) of this section, a person may not install a new
13 commercial clothes washer, commercial prerinse spray valve, commercial refrigerator or freezer, il-
14 luminated exit sign, single-voltage external AC to DC power supply, state-regulated incandescent
15 reflector lamp, torchiere, traffic signal module, automatic commercial ice cube machine, metal halide
16 lamp fixture, unit heater, bottle-type water dispenser, commercial hot food holding cabinet, compact
17 audio product, digital versatile disc player, digital versatile disc recorder, portable electric spa,
18 walk-in refrigerator, [or] walk-in freezer, **television, inductive charger system, large battery**
19 **charger system or small battery charger system** for compensation unless the energy efficiency
20 of the new product meets or exceeds the minimum energy efficiency standards specified in ORS
21 469.233.

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

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

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

26 **SECTION 8.** ORS 469.239, as amended by section 7 of this 2013 Act, is amended to read:

27 469.239. (1) Except as provided in subsection (2) of this section, a person may not install a new
28 commercial clothes washer, commercial prerinse spray valve, commercial refrigerator or freezer, il-
29 luminated exit sign, single-voltage external AC to DC power supply, state-regulated incandescent
30 reflector lamp, torchiere, traffic signal module, automatic commercial ice cube machine, metal halide
31 lamp fixture, unit heater, bottle-type water dispenser, commercial hot food holding cabinet, compact
32 audio product, digital versatile disc player, digital versatile disc recorder, portable electric spa,
33 walk-in refrigerator, walk-in freezer, television, inductive charger system, large battery charger
34 system, [or] small battery charger system **or high light output double-ended quartz halogen lamp**
35 for compensation unless the energy efficiency of the new product meets or exceeds the minimum
36 energy efficiency standards specified in ORS 469.233.

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

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

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

41
42 **MISCELLANEOUS**

43
44 **SECTION 9.** The unit captions used in this 2013 Act are provided only for the convenience
45 of the reader and do not become part of the statutory law of this state or express any leg-

1 **islative intent in the enactment of this 2013 Act.**

2 **SECTION 10. (1) The amendments to ORS 469.229 by section 2 of this 2013 Act become**
3 **operative on January 1, 2016.**

4 **(2) The amendments to ORS 469.233 by section 4 of this 2013 Act become operative on**
5 **January 1, 2016.**

6 **(3) The amendments to ORS 469.238 by section 6 of this 2013 Act become operative on**
7 **January 1, 2016.**

8 **(4) The amendments to ORS 469.239 by section 8 of this 2013 Act become operative on**
9 **January 1, 2016.**

10 **(5) The minimum energy efficiency standards specified in ORS 469.233 (19)(b) do not apply**
11 **to a small battery charger system that is made available by a manufacturer directly to a**
12 **consumer or to a service or repair facility, as a service part or spare part, after and separate**
13 **from the original sale of the product that requires the small battery charger system as a**
14 **service part or spare part, or for a battery charger that is not sold at retail, before July 1,**
15 **2017.**

16 _____