

CHAPTER 4

AN ACT

HB 4057

Relating to minimum energy efficiency standards; creating new provisions; amending ORS 469.229, 469.233, 469.238 and 469.239; and prescribing an effective date.

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

SECTION 1. ORS 469.229 is amended to read:

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

(1) "À la carte charger" means a battery charger that is individually packaged without batteries, including a multiport charger or a charger with multivoltage capability.

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

(3) "Battery" or "battery pack" means an assembly of one or more rechargeable cells intended to provide electrical energy to a product, in one of the following forms:

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

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

(4) "Battery analyzer" means a device:

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

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

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

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

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

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

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

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

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

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

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

(B) That is classified as a Class II or Class III device for human use under the Federal Food, Drug, and Cosmetic Act, as in effect on January 1, 2014, and that requires listing and approval as a medical device;

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

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

(E) That is a battery analyzer;

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

(G) That is contained completely within a larger product and that provides power for data storage or for continuity within volatile cache or memory systems, that maintains information for system use and that is not capable of powering full operation of the larger product when external AC line voltage is removed.

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

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

(8) "Bottle-type water dispenser" and "water cooler" have the meanings given those terms by the Director of the State Department of Energy by rule.

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

(10) "Combination television" means a system in which a television or television monitor and an additional device or devices, including a video cassette

recorder, are combined into a single unit in which the additional device or devices are included in the television casing.

(11) "Commercial dishwasher" has the meaning given that term by the director by rule.

(12) "Commercial fryer" has the meaning given that term by the director by rule.

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

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

(14) "Commercial steam cooker" has the meaning given that term by the director by rule.

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

(A) Magnetic tape;

(B) Compact disc;

(C) DVD; or

(D) Flash memory.

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

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

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

(18) "Computer" has the meaning given that term by the director by rule.

(19) "Computer monitor" has the meaning given that term by the director by rule.

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

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

(b) "Digital versatile disc recorder" does not include models that have an electronic programming guide function that provides an interactive, on-screen menu of television listings and downloads program information from the vertical blanking interval of a regular television signal.

(22) "Electric storage water heater" has the meaning given that term by the director by rule, after consultation with the State Plumbing Board.

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

(24) "Faucet" has the meaning given that term by the director by rule, after consultation with the State Plumbing Board.

(25) "High color-rendering index fluorescent lamp" and "high CRI fluorescent lamp" have the meanings given those terms by the director by rule.

(26) "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.

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

(A) Is designed for general outdoor lighting purposes;

(B) Contains a tungsten filament;

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

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

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

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

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

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

(A) A tubular quartz infrared heat lamp; or

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

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

(29) "Kitchen faucet" has the meaning given that term by the director by rule, after consultation with the State Plumbing Board.

(30) "Kitchen replacement aerator" has the meaning given that term by the director by rule, after consultation with the State Plumbing Board.

(31)(a) "Large battery charger system" means a battery charger system with a rated input power of more than two kilowatts.

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

(32) "Lavatory faucet" has the meaning given that term by the director by rule, after consultation with the State Plumbing Board.

(33) "Lavatory replacement aerator" has the meaning given that term by the director by rule, after consultation with the State Plumbing Board.

(34) "Multiport charger" means a battery charger that is capable of simultaneously charging two or more batteries and that may have multivolt-

age capability, allowing two or more batteries of different voltages to charge simultaneously.

(35) “No battery mode” means the mode of operation in which a battery charger is connected to the main electricity supply and the battery is not connected to the charger.

(36) “Plumbing fitting” has the meaning given that term by the director by rule, after consultation with the State Plumbing Board.

(37) “Portable electric spa” has the meaning given that term by the director by rule.

(38) “Public lavatory faucet” has the meaning given that term by the director by rule, after consultation with the State Plumbing Board.

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

(40) “Pressure regulator” means a device that maintains constant operating pressure immediately downstream from the device, given higher pressure upstream.

[40] (41) “Residential ventilating fan” has the meaning given that term by the director by rule.

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

[42] (43) “Showerhead” has the meaning given that term by the director by rule, after consultation with the State Plumbing Board.

[43] (44) “Small battery charger system” means:

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

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

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

[44(a)] (46)(a) “Television” means an analog or digital device, including a combination television, a television monitor, a component television and any unit marketed as a television, designed for the display and reception of a terrestrial, satellite, cable or Internet protocol or other broadcast or recorded transmission of analog or digital video or audio signals.

(b) “Television” does not mean a computer monitor.

[45] (47) “Television monitor” means a television that does not have an internal tuner, receiver or playback device.

[46] (48) “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.

[47] (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.

SECTION 2. ORS 469.233 is amended to read:

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

(1) Bottle-type water dispensers or water coolers manufactured on or after January 1, 2022, and included in the scope of the United States Environmental Protection Agency’s “Energy Star Program Requirements Product Specification for Water Coolers, Version 2.0,” must have an “on mode with no water draw” energy consumption less than or equal to the following values as measured in accordance with the test requirements of that specification:

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

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

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

(2) 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.

(3) 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.”

(4) 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.”

(5) Portable electric spas manufactured on or after January 1, 2022, must meet the requirements of the American National Standards Institute’s “American National Standard for Portable Electric Spa Energy Efficiency (ANSI/APSP/ICC-14 2019).”

(6) A television manufactured on or after January 1, 2014, must automatically enter television standby-passive mode after a maximum of 15 minutes without video or audio input on the selected input mode. A television must enter television standby-passive mode when turned off with the remote control unit or via an internal signal. The peak

luminance of a television in home mode, or in the default mode as shipped, may not be less than 65 percent of the peak luminance of the retail mode or

the brightest selectable preset mode of the television. A television must meet the standards in the following table:

Viewable Screen Area	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)
<1400 sq. in	1 W	$P \leq 0.12 \times A + 25$	0.9
≥ 1400 sq. in	3 W	NA	NA

(7)(a) Large battery charger systems manufactured on or after January 1, 2014, must meet the minimum efficiencies in the following table:

Standards for Large Battery Charger Systems		
Performance Parameter	Standard	
Charge Return Factor	100 percent Depth of Discharge	$\text{Crf} \leq 1.10$
	80 percent Depth of Discharge	$\text{Crf} \leq 1.10$
	40 percent Depth of Discharge	$\text{Crf} \leq 1.15$
Power Conversion Efficiency	≥ 89 percent	
Power Factor	≥ 0.90	
Battery Maintenance Mode Power +0.0012E _b W (E _b = battery capacity of tested battery)	≤ 10	
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:

Standards for Inductive and Small Battery Charger Systems		
Performance Parameter	Standard	
Maximum 24-hour charge and maintenance energy (Wh) (E _b = capacity of all batteries in ports and N =	For E _b of 2.5 Wh or less: $16 \times N$	
	For E _b > 2.5 Wh and ≤ 100 Wh: $12 \times N + 1.6E_b$	
	For E _b > 100 Wh and ≤ 1000 Wh: $22 \times N + 1.5E_b$	

number of charger
ports)

For $E_b > 1000 \text{ Wh}$:
 $36.4 \times N + 1.486E_b$

Battery Maintenance
Mode Power and No
Battery Mode Power (W)
Power Factor (E_b = capacity
of all batteries in ports and
 N = number of charger ports)

The sum of battery maintenance mode power and no
battery mode power must be less than or equal to:
 $1 \times N + 0.0021 \times E_b$

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

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

(ii) Small battery charger systems for sale at retail that are USB charger systems with a battery capacity of 20 watt-hours or more and that are manufactured on or after January 1, 2014.

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

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

(v) Battery backups and uninterruptible power supplies, manufactured on or after January 1, 2014, for small battery charger systems for sale at retail, which may not consume more than $0.8 + (0.0021 \times E_b)$ watts in battery maintenance mode, where (E_b) is the battery capacity in watt-hours.

(vi) Battery backups and uninterruptible power supplies, manufactured on or after January 1, 2017, for small battery charger systems not sold at retail, which may not consume more than $0.8 + (0.0021 \times E_b)$ watts in battery maintenance mode, where (E_b) is the battery capacity in watt-hours.

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

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

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

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

(8) A high light output double-ended quartz halogen lamp manufactured on or after January 1, 2016, must have a minimum efficiency of:

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

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

(9) High CRI fluorescent lamps manufactured on or after January 1, 2023, must meet or exceed the lamp efficacy standards contained in 10 C.F.R. 430.32(n)(4), as in effect on January 1, 2020.

(10) Computers and computer monitors manufactured on or after January 1, 2022, must meet the requirements contained in the California Code of Regulations, Title 20, section 1605.3(v), as adopted on May 10, 2017, and amended on November 8, 2017.

(11) The following plumbing fittings manufactured on or after January 1, 2022, must meet the requirements in the California Code of Regulations, Title 20, section 1605.3(h), as in effect on January 1, 2020:

(a) Lavatory faucets and lavatory replacement aerators;

(b) Kitchen faucets and kitchen replacement aerators;

(c) Public lavatory faucets; and

(d) Showerheads.

(12) Commercial fryers manufactured on or after January 1, 2022, and included in the scope of the United States Environmental Protection Agency's "Energy Star Program Requirements Product Specification for Commercial Fryers, Version 2.0," must meet the qualification criteria, testing requirements and other requirements of that specification.

(13) Commercial dishwashers manufactured on or after January 1, 2022, and included in the scope of the United States Environmental Protection Agency's "Energy Star Program Requirements Product Specification for Commercial Dishwashers, Version 2.0," must meet the qualification criteria, testing requirements and other requirements of that specification.

(14) Commercial steam cookers manufactured on or after January 1, 2022, and included in the scope of the United States Environmental Protection Agency's "Energy Star Program Requirements Product Specification for Commercial Steam Cookers, Version 1.2," must meet the qualification criteria, testing requirements and other requirements of that specification.

(15) Residential ventilating fans manufactured on or after January 1, 2022, and included in the scope of the United States Environmental Protection Agency's "Energy Star Program Requirements Product Specification for Residential Ventilating Fans,

Version 3.2,” must meet the qualification criteria, testing requirements and other requirements of that specification.

(16)(a) Electric storage water heaters manufactured on or after January 1, 2022, must have a modular demand response communications port compliant with:

(A) The March 2018 version of the ANSI/CTA-2045-A communication interface standard or a standard determined by the Director of the State Department of Energy to be equivalent; and

(B) The March 2018 version of the ANSI/CTA-2045-A application layer requirements.

(b) A request that the director determine that a communication interface standard is equivalent to the March 2018 version of the ANSI/CTA-2045-A communication interface standard under paragraph (a)(A) of this subsection must be made in the manner prescribed by the director by rule.

(17) Spray sprinkler bodies manufactured on or after January 1, 2023, and included in the scope of the United States Environmental Protection Agency’s “WaterSense Specification for Spray Sprinkler Bodies, Version 1.0,” must include an integral pressure regulator and meet the water efficiency and performance criteria and other requirements of that specification.

SECTION 3. ORS 469.238 is amended to read:

469.238. (1) Except as provided in subsection (2) of this section, a person may not sell or offer for sale a new bottle-type water dispenser, commercial hot food holding cabinet, compact audio product, digital versatile disc player, digital versatile disc recorder, portable electric spa, television, inductive charger system, large battery charger system, small battery charger system, high light output double-ended quartz halogen lamp, high color-rendering index fluorescent lamp, computer, computer monitor, lavatory faucet, kitchen faucet, public lavatory faucet, lavatory replacement aerator, kitchen replacement aerator, showerhead, commercial fryer, commercial steam cooker, commercial dishwasher, residential ventilation fan, [or] electric storage water heater **or spray sprinkler body** unless the energy efficiency of the new product meets or exceeds the minimum energy efficiency standards specified in ORS 469.233.

(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. ORS 469.239 is amended to read:

469.239. (1) Except as provided in subsection (2) of this section, a person may not install a new bottle-type water dispenser, commercial hot food holding cabinet, compact audio product, digital versatile disc player, digital versatile disc recorder, portable electric spa, television, inductive charger system, large battery charger system, small battery charger system, high light output double-ended quartz halogen lamp, high color-rendering index fluorescent lamp, computer, computer monitor, commercial fryer, commercial steam cooker, commercial dishwasher, [or] residential ventilation fan **or spray sprinkler body** for compensation unless the energy efficiency of the new product meets or exceeds the minimum energy efficiency standards specified in ORS 469.233.

(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 5. (1) The amendments to ORS 469.229, 469.233, 469.238 and 469.239 by sections 1 to 4 of this 2022 Act become operative on January 1, 2023.

(2) The State Department of Energy may take any action before the operative date specified in subsection (1) of this section that is necessary for the department to exercise, on and after the operative date specified in subsection (1) of this section, all of the duties, functions and powers conferred on the department by the amendments to ORS 469.229, 469.233, 469.238 and 469.239 by sections 1 to 4 of this 2022 Act.

SECTION 6. This 2022 Act takes effect on the 91st day after the date on which the 2022 regular session of the Eighty-first Legislative Assembly adjourns sine die.

Approved by the Governor March 2, 2022.

Filed in the office of Secretary of State March 2, 2022

Effective date June 3, 2022