

ESHB 1004 - S COMM AMD

By Committee on Environment, Water & Energy

NOT ADOPTED 04/13/2009

1 Strike everything after the enacting clause and insert the
2 following:

3 "Sec. 1. RCW 19.260.020 and 2006 c 194 s 1 are each amended to
4 read as follows:

5 The definitions in this section apply throughout this chapter
6 unless the context clearly requires otherwise.

7 (1) "Automatic commercial ice cube machine" means a factory-made
8 assembly, not necessarily shipped in one package, consisting of a
9 condensing unit and ice-making section operating as an integrated unit
10 with means for making and harvesting ice cubes. It may also include
11 integrated components for storing or dispensing ice, or both.

12 ~~(2) ("Ballast" means a device used with an electric discharge lamp
13 to obtain necessary circuit conditions, such as voltage, current, and
14 waveform, for starting and operating the lamp.~~

15 ~~(3) "Commercial clothes washer" means a soft mount horizontal or
16 vertical axis clothes washer that: (a) Has a clothes container
17 compartment no greater than 3.5 cubic feet in the case of a horizontal-
18 axis product or no greater than 4.0 cubic feet in the case of a
19 vertical axis product; and (b) is designed for use by more than one
20 household, such as in multifamily housing, apartments, or coin
21 laundries.~~

22 ~~(4) "Commercial prerinse spray valve" means a handheld device
23 designed and marketed for use with commercial dishwashing and
24 warewashing equipment and that sprays water on dishes, flatware, and
25 other food service items for the purpose of removing food residue prior
26 to their cleaning)) "Bottle-type water dispenser" means a water
27 dispenser that uses a bottle or reservoir as the source of potable
28 water.~~

29 (3) "Commercial hot food holding cabinet" means a heated, fully
30 enclosed compartment, with one or more solid or partial glass doors,

1 that is designed to maintain the temperature of hot food that has been
2 cooked in a separate appliance. "Commercial hot food holding cabinet"
3 does not include heated glass merchandising cabinets, drawer warmers,
4 or cook and hold appliances.

5 ((+5)) (4)(a) "Commercial refrigerators and freezers" means
6 refrigerators, freezers, or refrigerator-freezers designed for use by
7 commercial or institutional facilities for the purpose of storing or
8 merchandising food products, beverages, or ice at specified
9 temperatures that: (i) Incorporate most components involved in the
10 vapor-compression cycle and the refrigerated compartment in a single
11 cabinet; and (ii) may be configured with either solid or transparent
12 doors as a reach-in cabinet, pass-through cabinet, roll-in cabinet, or
13 roll-through cabinet.

14 (b) "Commercial refrigerators and freezers" does not include: (i)
15 Products with 85 cubic feet or more of internal volume; (ii) walk-in
16 refrigerators or freezers; (iii) consumer products that are federally
17 regulated pursuant to 42 U.S.C. Sec. 6291 et seq.; (iv) products
18 without doors; or (v) freezers specifically designed for ice cream.

19 ((+6)) (5) "Compensation" means money or any other valuable thing,
20 regardless of form, received or to be received by a person for services
21 rendered.

22 (6) "Cook and hold appliance" means a multiple mode appliance
23 intended for cooking food that may be used to hold the temperature of
24 the food that has been cooked in the same appliance.

25 (7) "Department" means the department of community, trade, and
26 economic development.

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

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

36 (10) ~~"Metal halide lamp fixture" means a light fixture designed to~~
37 ~~be operated with a metal halide lamp and a ballast for a metal halide~~

1 ~~lamp~~) "Drawer warmer" means an appliance that consists of one or more
2 heated drawers and that is designed to hold hot food that has been
3 cooked in a separate appliance at a specified temperature.

4 (9) "Heated glass merchandising cabinet" means an appliance with a
5 heated cabinet constructed of glass or clear plastic doors which, with
6 seventy percent or more clear area, is designed to display and maintain
7 the temperature of hot food that has been cooked in a separate
8 appliance.

9 (10) "Hot water dispenser" means a small electric water heater that
10 has a measured storage volume of no greater than one gallon.

11 (11) "Minitank electric water heater" means a small electric water
12 heater that has a measured storage volume of more than one gallon and
13 a rated storage of volume less than twenty gallons.

14 ~~((+11))~~ (12) "Pass-through cabinet" means a commercial
15 refrigerator or freezer with hinged or sliding doors on both the front
16 and rear of the unit.

17 ~~((+12) "Probe start metal halide ballast" means a ballast used to~~
18 ~~operate metal halide lamps which does not contain an igniter and which~~
19 ~~instead starts lamps by using a third starting electrode "probe" in the~~
20 ~~arc tube.))~~

21 (13) "Point-of-use water dispenser" means a water dispenser that
22 uses a pressurized water utility connection as the source of potable
23 water.

24 (14) "Pool heater" means an appliance designed for heating
25 nonpotable water contained at atmospheric pressure for swimming pools,
26 spas, hot tubs, and similar applications.

27 (15) "Portable electric spa" means a factory-built electric spa or
28 hot tub, supplied with equipment for heating and circulating water.

29 (16) "Reach-in cabinet" means a commercial refrigerator or freezer
30 with hinged or sliding doors or lids, but does not include roll-in or
31 roll-through cabinets or pass-through cabinets.

32 ~~((+14))~~ (17) "Residential pool pump" means a pump used to
33 circulate and filter pool water in order to maintain clarity and
34 sanitation.

35 (18)(a) "Roll-in cabinet" means a commercial refrigerator or
36 freezer with hinged or sliding doors that allow wheeled racks of
37 product to be rolled into the unit.

1 (b) "Roll-through cabinet" means a commercial refrigerator or
2 freezer with hinged or sliding doors on two sides of the cabinet that
3 allow wheeled racks of product to be rolled through the unit.

4 ~~((15)(a) "Single voltage external AC to DC power supply" means a~~
5 ~~device that: (i) Is designed to convert line voltage alternating~~
6 ~~current input into lower voltage direct current output; (ii) is able to~~
7 ~~convert to only one DC output voltage at a time; (iii) is sold with, or~~
8 ~~intended to be used with, a separate end use product that constitutes~~
9 ~~the primary power load; (iv) is contained within a separate physical~~
10 ~~enclosure from the end use product; (v) is connected to the end use~~
11 ~~product via a removable or hard wired male/female electrical~~
12 ~~connection, cable, cord, or other wiring; and (vi) has a nameplate~~
13 ~~output power less than or equal to 250 watts.~~

14 ~~(b) "Single voltage external AC to DC power supply" does not~~
15 ~~include: (i) Products with batteries or battery packs that physically~~
16 ~~attach directly to the power supply unit; (ii) products with a battery~~
17 ~~chemistry or type selector switch and indicator light; or (iii)~~
18 ~~products with a battery chemistry or type selector switch and a state~~
19 ~~of charge meter.~~

20 ~~(16))~~ (19) "Showerhead" means a device through which water is
21 discharged for a shower bath.

22 (20) "Showerhead tub spout diverter combination" means a group of
23 plumbing fittings sold as a matched set and consisting of a control
24 valve, a tub spout diverter, and a showerhead.

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

31 (a) A bulged reflector or elliptical reflector bulb shape and which
32 has a diameter which equals or exceeds 2.25 inches;

33 (b) A reflector, parabolic aluminized reflector, or similar bulb
34 shape and which has a diameter of 2.25 to 2.75 inches.

35 ~~((17) "Transformer" means a device consisting of two or more coils~~
36 ~~of insulated wire and that is designed to transfer alternating current~~
37 ~~by electromagnetic induction from one coil to another to change the~~
38 ~~original voltage or current value.~~

1 ~~(18)(a) "Unit heater" means a self-contained, vented fan-type~~
2 ~~commercial space heater that uses natural gas or propane, and that is~~
3 ~~designed to be installed without ducts within a heated space.~~

4 ~~(b) "Unit heater" does not include any products covered by federal~~
5 ~~standards established pursuant to 42 U.S.C. Sec. 6291 et seq. or any~~
6 ~~product that is a direct vent, forced flue heater with a sealed~~
7 ~~combustion burner)) (22) "Tub spout diverter" means a device designed~~
8 ~~to stop the flow of water into a bathtub and to divert it so that the~~
9 ~~water discharges through a showerhead.~~

10 (23) "Wine chillers designed and sold for use by an individual"
11 means refrigerators designed and sold for the cooling and storage of
12 wine by an individual.

13 **Sec. 2.** RCW 19.260.030 and 2006 c 194 s 2 are each amended to read
14 as follows:

15 (1) This chapter applies to the following types of new products
16 sold, offered for sale, or installed in the state:

17 (a) Automatic commercial ice cube machines;

18 ~~((commercial clothes washers; (c) commercial prerinse spray~~
19 ~~valves; (d))) Commercial refrigerators and freezers; ~~((e) metal halide~~
20 ~~lamp fixtures; (f) single voltage external AC to DC power supplies;~~
21 ~~(g)))~~~~

22 (c) State-regulated incandescent reflector lamps; ((and (h) unit
23 heaters))

24 (d) Wine chillers designed and sold for use by an individual;

25 (e) Hot water dispensers and minitank electric water heaters;

26 (f) Bottle-type water dispensers and point-of-use water dispensers;

27 (g) Pool heaters, residential pool pumps, and portable electric
28 spas;

29 (h) Tub spout diverters; and

30 (i) Commercial hot food holding cabinets.

31 (2) This chapter applies equally to products whether they are sold,
32 offered for sale, or installed as ((a)) stand-alone products or as
33 ((a)) components of ((another)) other products.

34 ~~((+2)) (3) This chapter does not apply to:~~

35 (a) New products manufactured in the state and sold outside the
36 state((7));

1 (b) New products manufactured outside the state and sold at
 2 wholesale inside the state for final retail sale and installation
 3 outside the state((τ))i

4 (c) Products installed in mobile manufactured homes at the time of
 5 construction((τ))i or

6 (d) Products designed expressly for installation and use in
 7 recreational vehicles.

8 **Sec. 3.** RCW 19.260.040 and 2006 c 194 s 3 are each amended to read
 9 as follows:

10 The ((~~legislature establishes the following~~)) minimum efficiency
 11 standards ((~~for~~)) specified in this section apply to the types of new
 12 products set forth in RCW 19.260.030.

13 (1)(a) Automatic commercial ice cube machines must have daily
 14 energy use and daily water use no greater than the applicable values in
 15 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
		>=934	5.3	Not applicable
Self-contained models	water	<200	11.40 - .0190H	191 - .0315H
		>=200	7.60	191 - .0315H
Self-contained models	air	<175	18.0 - .0469H	Not applicable
		>=175	9.80	Not applicable

32 Where H= harvest rate in pounds per twenty-four hours which must be reported within 5% of the tested value.

33 "Maximum water use" applies only to water used for the condenser.

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

~~(2) ((Commercial clothes washers must have a minimum modified energy factor of 1.26. For the purposes of this section, capacity and modified energy factor are defined and measured in accordance with the current federal test method for clothes washers as found at 10 C.F.R. Sec. 430.23.~~

~~(3) Commercial prerinse spray valves must have a flow rate equal to or less than 1.6 gallons per minute when measured in accordance with the American society for testing and materials' "Standard Test Method for Prerinse Spray Valves," ASTM F2324-03.~~

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

Equipment Type	Doors	Maximum Daily Energy Consumption (kWh)
Reach-in cabinets, pass-through cabinets, and roll-in or roll-through cabinets that are refrigerators	Solid	$0.10V + 2.04$
	Transparent	$0.12V + 3.34$
Reach-in cabinets, pass-through cabinets, and roll-in or roll-through cabinets that are "pulldown" refrigerators	Transparent	$.126V + 3.51$
Reach-in cabinets, pass-through cabinets, and roll-in or roll-through cabinets that are freezers	Solid	$0.40V + 1.38$
	Transparent	$0.75V + 4.10$
Reach-in cabinets that are refrigerator-freezers with an AV of 5.19 or higher	Solid	$0.27AV - 0.71$

kWh= kilowatt hours

V= total volume (ft³)

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

(b) For purposes of this section, "pulldown" designates products designed to take a fully stocked refrigerator with beverages at 90 degrees F and cool those beverages to a stable temperature of 38 degrees F within 12 hours or less. Daily energy consumption shall be

1 measured in accordance with the American national standards
 2 institute/American society of heating, refrigerating and air-
 3 conditioning engineers test method 117-2002, except that the back-
 4 loading doors of pass-through and roll-through refrigerators and
 5 freezers must remain closed throughout the test, and except that the
 6 controls of all appliances must be adjusted to obtain the following
 7 product temperatures.

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

11 ~~((5) Metal halide lamp fixtures designed to be operated with lamps~~
 12 ~~rated greater than or equal to 150 watts but less than or equal to 500~~
 13 ~~watts shall not contain a probe start metal halide lamp ballast.~~

14 ~~(6)(a) Single voltage external AC to DC power supplies shall meet~~
 15 ~~the requirements in the following table:~~

16 Nameplate output	Minimum Efficiency in Active Mode
17 <1 Watt	0.49 * Nameplate Output
18 >or=1 Watt and <or= 49 Watts	0.09 * Ln (Nameplate Output) + 0.49
19 >49 Watts	0.84
	Maximum Energy Consumption in No-Load Mode
21 <10 Watts	0.5 Watts
22 >or=10 Watts and <or= 250 Watts	0.75 Watts

23 ~~Where Ln (Nameplate Output) - Natural Logarithm of the nameplate output expressed in Watts~~
 24 ~~(b) For the purposes of this section, efficiency of single voltage~~
 25 ~~external AC to DC power supplies shall be measured in accordance with~~
 26 ~~the United States environmental protection agency's "Test Method for~~
 27 ~~Calculating the Energy Efficiency of Single Voltage External AC to DC~~
 28 ~~and AC to AC Power Supplies," by Ecos Consulting and Power Electronics~~
 29 ~~Application Center, dated August 11, 2004.~~

30 ~~(7)) (3)(a) The lamp electrical power input of state-regulated~~
 31 ~~incandescent reflector lamps shall meet the minimum average lamp~~
 32 ~~efficacy requirements for federally regulated incandescent reflector~~
 33 ~~lamps ((contained)) specified in 42 U.S.C. Sec. 6295(i)(1)(A)-(B).~~

1 (b) The following types of incandescent lamps are exempt from these
2 requirements:

3 (i) Lamps rated at fifty watts or less of the following types: BR
4 30, ER 30, BR 40, and ER 40;

5 (ii) Lamps rated at sixty-five watts of the following types: BR
6 30, BR 40, and ER 40; and

7 (iii) R 20 lamps of forty-five watts or less.

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

11 (4)(a) Wine chillers designed and sold for use by an individual
12 must meet requirements specified in the California Code of Regulations,
13 Title 20, section 1605.3 in effect as of the effective date of this
14 section.

15 (b) Wine chillers designed and sold for use by an individual shall
16 be tested in accordance with the method specified in the California
17 Code of Regulations, Title 20, section 1604 in effect as of the
18 effective date of this section.

19 (5)(a) The standby energy consumption of bottle-type water
20 dispensers, and point-of-use water dispensers, dispensing both hot and
21 cold water, manufactured on or after January 1, 2010, shall not exceed
22 1.2 kWh/day.

23 (b) The test method for water dispensers shall be the environmental
24 protection agency energy star program requirements for bottled water
25 coolers version 1.1.

26 (6)(a) The standby energy consumption of hot water dispensers and
27 minitank electric water heaters manufactured on or after January 1,
28 2010, shall be not greater than 35 watts.

29 (b) This subsection does not apply to any water heater:

30 (i) That is within the scope of 42 U.S.C. Sec. 6292(a)(4) or
31 6311(1);

32 (ii) That has a rated storage volume of less than 20 gallons; and

33 (iii) For which there is no federal test method applicable to that
34 type of water heater.

35 (c) Hot water dispensers shall be tested in accordance with the
36 method specified in the California Code of Regulations, Title 20,
37 section 1604 in effect as of the effective date of this section.

1 (d) Minitank electric water heaters shall be tested in accordance
2 with the method specified in the California Code of Regulations, Title
3 20, section 1604 in effect as of the effective date of this section.

4 (7) The following standards are established for pool heaters,
5 residential pool pumps, and portable electric spas:

6 (a) Natural gas pool heaters shall not be equipped with constant
7 burning pilots.

8 (b) Residential pool pump motors manufactured on or after January
9 1, 2010, must meet requirements specified in the California Code of
10 Regulations, Title 20, section 1605.3 in effect as of the effective
11 date of this section.

12 (c) Portable electric spas manufactured on or after January 1,
13 2010, must meet requirements specified in the California Code of
14 Regulations, Title 20, section 1605.3 in effect as of the effective
15 date of this section.

16 (d) Portable electric spas must be tested in accordance with the
17 method specified in the California Code of Regulations, Title 20,
18 section 1604 in effect as of the effective date of this section.

19 (8)(a) The leakage rate of tub spout diverters shall be no greater
20 than the applicable requirements shown in the following table:

		<u>Maximum Leakage Rate</u>
<u>Appliance</u>	<u>Testing Conditions</u>	<u>Effective January 1, 2009</u>
	<u>When new</u>	<u>0.01 gpm</u>
<u>Tub spout diverters</u>	<u>After 15,000 cycles of diverting</u>	<u>0.05 gpm</u>

25 (b) Showerhead-tub spout diverter combinations shall meet both the
26 standard for showerheads and the standard for tub spout diverters.

27 (9)(a) The idle energy rate of commercial hot food holding cabinets
28 manufactured on or after January 1, 2010, shall be no greater than 40
29 watts per cubic foot of measured interior volume.

30 (b) The idle energy rate of commercial hot food holding cabinets
31 shall be determined using ANSI/ASTM F2140-01 standard test method for
32 the performance of hot food holding cabinets (test for idle energy rate
33 dry test). Commercial hot food holding cabinet interior volume shall
34 be calculated using straight line segments following the gross interior

1 dimensions of the appliance and using the following equation: Interior
2 height x interior width x interior depth. Interior volume shall not
3 account for racks, air plenums, or other interior parts.

4 **Sec. 4.** RCW 19.260.050 and 2006 c 194 s 4 are each amended to read
5 as follows:

6 (1) No new (~~commercial prerinse spray valve, commercial clothes~~
7 ~~washer,~~) commercial refrigerator or freezer(~~(,)~~) or state-regulated
8 incandescent reflector lamp(~~(, or unit heater)~~) manufactured on or
9 after January 1, 2007, may be sold or offered for sale in the state
10 unless the efficiency of the new product meets or exceeds the
11 efficiency standards set forth in RCW 19.260.040. No new automatic
12 commercial ice cube machine(~~(, single voltage external AC to DC power~~
13 ~~supply, or metal halide lamp fixtures)~~) manufactured on or after
14 January 1, 2008, may be sold or offered for sale in the state unless
15 the efficiency of the new product meets or exceeds the efficiency
16 standards set forth in RCW 19.260.040.

17 (2) On or after January 1, 2008, no new (~~commercial prerinse spray~~
18 ~~valve, commercial clothes washer,~~) commercial refrigerator or
19 freezer(~~(, single voltage external AC to DC power supply,~~) or state-
20 regulated incandescent reflector lamp(~~(, or unit heater)~~) manufactured
21 on or after January 1, 2007, may be installed for compensation in the
22 state unless the efficiency of the new product meets or exceeds the
23 efficiency standards set forth in RCW 19.260.040. On or after January
24 1, 2009, no new automatic commercial ice cube machine (~~(or metal halide~~
25 ~~lamp fixtures)~~) manufactured on or after January 1, 2008, may be
26 installed for compensation in the state unless the efficiency of the
27 new product meets or exceeds the efficiency standards set forth in RCW
28 19.260.040.

29 (3) Standards for (~~metal halide lamp fixtures and~~) state-
30 regulated incandescent reflector lamps are effective on the dates in
31 subsections (1) and (2) of this section.

32 (4) The following products, if manufactured on or after January 1,
33 2010, may not be sold or offered in the state unless the efficiency of
34 the new product meets or exceeds the efficiency standards set forth in
35 RCW 19.260.040:

36 (a) Wine chillers designed and sold for use by an individual;

37 (b) Hot water dispensers and minitank electric water heaters;

- 1 (c) Bottle-type water dispensers and point-of-use water dispensers;
2 (d) Pool heaters, residential pool pumps, and portable electric
3 spas;
4 (e) Tub spout diverters; and
5 (f) Commercial hot food holding cabinets.
6 (5) The following products, if manufactured on or after January 1,
7 2010, may not be installed for compensation in the state on or after
8 January 1, 2011, unless the efficiency of the new product meets or
9 exceeds the efficiency standards set forth in RCW 19.260.040:
10 (a) Wine chillers designed and sold for use by an individual;
11 (b) Hot water dispensers and minitank electric water heaters;
12 (c) Bottle-type water dispensers and point-of-use water dispensers;
13 (d) Pool heaters, residential pool pumps, and portable electric
14 spas;
15 (e) Tub spout diverters; and
16 (f) Commercial hot food holding cabinets.

17 NEW SECTION. **Sec. 5.** If any provision of this act or its
18 application to any person or circumstance is held invalid, the
19 remainder of the act or the application of the provision to other
20 persons or circumstances is not affected."

ESHB 1004 - S COMM AMD

By Committee on Environment, Water & Energy

NOT ADOPTED 04/13/2009

21 On page 1, line 1 of the title, after "Relating to" strike the
22 remainder of the title and insert "revising the energy efficiency code;
23 and amending RCW 19.260.020, 19.260.030, 19.260.040, and 19.260.050."

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