
**Technology & Economic Development
Committee**

HB 1100

Brief Description: Creating new appliance efficiency standards.

Sponsors: Representatives Morris, S. Hunt, Hudgins, Ormsby and Fey.

Brief Summary of Bill

- Creates minimum efficiency and testing standards for certain new appliances.

Hearing Date: 1/20/15

Staff: Nikkole Hughes (786-7156).

Background:

Efficiency Standards for Electrical Products.

Washington law sets minimum energy efficiency standards for several categories of electrical products sold, offered for sale, or installed in the state, including:

- automatic commercial ice cube machines;
- commercial refrigerators and freezers;
- certain incandescent reflector lights;
- commercial hot food holding cabinets; and
- bottle-type and point-of-use water dispensers.

Federal law generally allows states to establish minimum energy efficiency standards for electrical products that are not addressed in federal law. Once a federal energy efficiency standard is established for an electrical product, the federal standard will preempt existing state standards unless the state is granted a waiver of federal preemption.

This analysis was prepared by non-partisan legislative staff for the use of legislative members in their deliberations. This analysis is not a part of the legislation nor does it constitute a statement of legislative intent.

The Department of Commerce (Commerce) may recommend updates to the energy efficiency standards and test methods for products listed under the state energy efficiency laws. Commerce may also recommend establishing state standards for additional non-federally covered products. In making its recommendations, Commerce must use criteria established in statute, including:

- multiple manufacturers produce products that meet the proposed standard at the time of recommendation;
- products meeting the proposed standard are available at the time of recommendation;
- the products are cost-effective to consumers on a life-cycle basis using average Washington resource rates;
- the utility of the energy efficient product meets or exceeds the utility of the comparable product available for purchase; and
- the standard exists in at least two other states.

The American Society of Heating and Refrigerating Institute and American Society of Heating, Refrigerating and Air-Conditioning Engineers Standards.

The Air-Conditioning, Heating, and Refrigerating Institute (AHRI) is the global trade association representing manufacturers of heating, ventilating, air-conditioning, refrigeration, and water heating equipment. The AHRI provides a certification program for heating, water heating, ventilation, air conditioning, and commercial refrigeration equipment.

The American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE), founded in 1894, develops industry standards in the areas of heating, ventilating, air-conditioning, and refrigerating.

The American National Standards Institute.

The American National Standards Institute (ANSI) is a not-for-profit organization that produces voluntary consensus standards and conformity assessment systems for a variety of industry sectors.

Summary of Bill:

Efficiency Standards for Battery Charger Systems, Battery Backup, and Uninterruptible Power Supplies.

Efficiency standards for battery charger systems, battery backup, and uninterruptible power supplies are established. The minimum efficiency standards for these products are incorporated by reference to the California Code of Regulations Title 20, section 1605, as of the effective date of the bill.

Large and small battery charger systems, if manufactured on or after January 1, 2017, may not be sold or offered for sale in the state unless the efficiency of new product meets or exceeds the efficiency standards. Large and small battery charger systems, if manufactured on or after January 1, 2017, may not be installed for compensation in the state on or after January 1, 2018, unless the efficiency of the new product meets or exceeds the efficiency standards.

Certain battery charger systems are exempt from meeting the efficiency standard for battery charger systems. They include battery charger systems:

- used to charge a motor vehicle powered by an electric motor drawing current from rechargeable storage batteries, fuel cells, or other portable sources of electrical current;
- used in certain medical devices approved for human use under the federal Food, Drug, and Cosmetic Act and listed and approved by the United States Food and Drug Administration as a medical device;
- used to charge a battery or batteries in an illuminated exit sign;
- designed for certain stationary power applications;
- that are battery analyzers; and
- that are voltage independent or voltage and frequency independent uninterruptible power supplies.

Battery backup and uninterruptible power supplies that are not consumer products, if manufactured on or after January 1, 2017, may not be sold or offered for sale in the state unless the efficiency of the new product meets or exceeds the efficiency standards.

Efficiency Standards for Deep-Dimming Fluorescent Ballasts.

Efficiency standards for deep-dimming fluorescent ballasts are established. Effective January 1, 2016, a deep-dimming fluorescent ballast must meet the following efficiency standard in kilowatt-hours per year: annual energy use $\leq 0.22 \times$ maximum arc power + 18. Testing methods for deep-dimming fluorescent ballasts are incorporated by reference to 10 C.F.R. section 430.23 (g) with certain modifications.

Efficiency Standards for State-Regulated Light Emitting Diode Lamps, High Light Output Double-Ended Quartz Halogen Lamps, and Small Diameter Directional Lamps.

Efficiency standards for state-regulated light emitting diode (LED) lamps, high light output double-ended quartz halogen lamps (quartz halogen lamp), and small diameter directional lamps are established.

Effective January 1, 2017, a state-regulated LED lamp must meet the minimum efficiency standard of 55 lumens per watt and a minimum color rendering index of 82. Effective January 1, 2019, a state-regulated LED lamp must meet the minimum efficiency standard of 65 lumens per watt and a minimum color rendering index of 84.

A quartz halogen lamp must meet minimum efficiency standards of: (1) 27 lumens per watt for lamps with a minimum rated initial lumen value greater than 6,000 and a maximum initial lumen value of 15,000; and (2) 34 lumens per watt for lamps with a rated initial lumen value greater than 15,000 and less than 40,000.

A quartz halogen lamp, if manufactured on or after January 1, 2017, may not be sold or offered for sale in the state unless the efficiency of the new product meets or exceeds the efficiency standards. A quartz halogen lamp, if manufactured on or after January 1, 2017, may not be installed for compensation in the state on or after January 1, 2018, unless the efficiency of the new product meets or exceeds the efficiency standards.

A small diameter directional lamp, if manufactured on or after January 1, 2017, must meet the minimum efficiency standards of: (1) 80 lumens per watt; (2) a power factor of 0.9; and (3) a rated life of 25,000 hours.

Test Methods for Heat-Pump Water-Chilling Packages.

Test methods for heat-pump water-chilling packages are established. Heat-pump water-chilling packages must be tested using certain American National Standards Institute (ANSI) and Air-Conditioning, Heating and Refrigeration Institute (AHRI) standards. Heating capacity tests must be conducted at ambient temperatures of each 47 and 17 degrees Fahrenheit and a leaving water temperature of 120 degrees Fahrenheit. If a heat-pump water-chilling package is capable of cooling, it must be tested at an ambient temperature of 95 degrees Fahrenheit and a leaving water temperature of 44 degrees Fahrenheit.

Test Methods for Heating, Ventilating, and Air-Conditioning Air Filters.

Test methods for heating, ventilating, and air-conditioning air filters are established. Appliance performance criteria for HVAC air filters must be tested with the following methods promulgated by AHRI and American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) (shown in parentheses):

- air filter pressure drop (AHRI 680-2009);
- air filter particle size efficiency and minimum efficiency reporting value (AHRI 680-2009 or ASHRAE 52.2-2012); and
- dust holding capacity (AHRI 680-2009 or ASHRAE 52.2-2012).

Appropriation: None.

Fiscal Note: Available.

Effective Date: The bill takes effect 90 days after adjournment of the session in which the bill is passed.