

1 H.316

2 Introduced by Representatives Masland of Thetford, Lanpher of Vergennes

3 and Zuckerman of Burlington

4 Referred to Committee on

5 Date:

6 Subject: Conservation; energy efficiency; appliance standards

7 Statement of purpose: This bill proposes to adopt efficiency standards to apply  
8 to the retail sale of various appliances and to establish dates by which each of  
9 these standards takes effect.

10 An act relating to establishing efficiency standards for specified appliances

11 It is hereby enacted by the General Assembly of the State of Vermont:

12 Sec. 1. 9 V.S.A. § 2793 is amended to read:

13 § 2793. DEFINITIONS

14 As used in this chapter:

15 \* \* \*

16 (15) “Automatic commercial ice-maker” means a factory-made  
17 assembly that is shipped in one or more packages that consists of a condensing  
18 unit and ice-making section operating as an integrated unit that makes and  
19 harvests ice cubes and that may store or dispense ice. This term includes

1 machines with capacities between and including 50 and 2,500 pounds per 24  
2 hours.

3 (16) "Ceiling fan" means a nonportable device that is suspended from a  
4 ceiling for circulating air via the rotation of fan blades.

5 (17) "Ceiling fan light kit" means equipment designed to provide light  
6 from a ceiling fan which can be one of the following:

7 (A) Integral, such that the equipment is hardwired to the ceiling fan.

8  
9 (B) Attachable, such that at the time of sale, the equipment is not  
10 physically attached to the ceiling fan, but may be included inside the ceiling  
11 fan package at the time of sale or sold separately for subsequent attachment to  
12 the fan.

13 (18) "Commercial clothes washer" means a soft mount horizontal- or  
14 vertical-axis clothes washer that has all of the following characteristics:

15 (A) The washer has a clothes container compartment no greater than  
16 3.5 cubic feet in the case of a horizontal-axis product or no greater than 4.0  
17 cubic feet in the case of a vertical-axis product.

18 (B) The washer is designed for use by more than one household, such  
19 as in multifamily housing, apartments, or coin laundries.

20 (19) "Commercial prerinse spray valve" means a hand-held device  
21 designed and marketed for use with commercial dishwashing and ware

1 washing equipment and which sprays water on dishes, flatware, and other food  
2 service items for the purpose of removing food residue prior to their cleaning.

3 (20)(A) “Commercial refrigerator, freezer, and refrigerator-freezer”  
4 means self-contained refrigeration equipment that has all of the following  
5 characteristics:

6 (i) The equipment is not a consumer product as regulated pursuant  
7 to 42 U.S.C. § 6291 et seq.

8 (ii) The equipment operates at a chilled, frozen, combination  
9 chilled and frozen, or variable temperature for the purpose of storing or  
10 merchandising, or storing and merchandising any combination of food,  
11 beverages, and ice.

12 (iii) The equipment has hinged or sliding doors or both, whether  
13 transparent or solid.

14 (iv) The equipment incorporates in a single cabinet most  
15 components involved in the vapor compression cycle and the refrigerated  
16 compartment.

17 (B) This term does not include any of the following:

18 (i) Products with 85 cubic feet or more of internal volume.

19 (ii) Walk-in refrigerators or freezers.

20 (iii) Consumer products that are federally regulated pursuant to  
21 42 U.S.C. § 6291 et seq.

1           (21) “Digital television adapter” means an electronic product for which  
2           the sole purpose is the conversion of digital video terrestrial broadcast signals  
3           to National Television System Committee analog video signals for use by an  
4           analog device such as a television. This term does not include cable or satellite  
5           television set-top boxes.

6           (22) “Furnace air handler” means the section of the furnace that includes  
7           the fan, blower, and housing, usually accompanied by a filter, all of which are  
8           located generally upstream of the burners and heat exchanger. In many  
9           residential applications, the air handler includes a cooling coil.

10           (23) “Illuminated exit sign” means an internally illuminated sign that is  
11           designed to be permanently fixed in place to identify an exit; consists of an  
12           electrically powered integral light source that illuminates the legend “EXIT”  
13           and any directional indicators; and provides contrast among the legend, any  
14           directional indicators, and the background.

15           (24) “Large packaged air-conditioning equipment” means packaged  
16           air-conditioning equipment that has a cooling capacity of 240,000 British  
17           thermal units (Btu) per hour or greater and that is built as a package and  
18           shipped as a whole to end-user sites.

19           (25)(A) “Low voltage dry-type distribution transformer” means a  
20           distribution transformer that has each of the following characteristics:

21                   (i) The transformer has an input voltage of 600 volts or less.

1                   (ii) The transformer is air-cooled.

2                   (iii) The transformer does not use oil as a coolant.

3                   (iv) The transformer is rated for operation at a frequency of 60

4 Hertz.

5                   (B) “Low voltage dry-type distribution transformer” does not include  
6 any of the following:

7                   (i) Transformers with multiple voltage taps, if the highest voltage  
8 tap equals at least 20 percent more than the lowest voltage tap.

9                   (ii) Transformers, such as those commonly known as drive  
10 transformers, rectifier transformers, auto-transformers, uninterruptible power  
11 system transformers, impedance transformers, harmonic transformers,  
12 regulating transformers, sealed and nonventilating transformers, machine tool  
13 transformers, welding transformers, grounding transformers, or testing  
14 transformers, that are designed to be used in a special purpose application and  
15 are unlikely to be used in general purpose applications.

16                  (26) “Pulldown refrigerator” means a commercial refrigerator  
17 specifically designed to rapidly reduce all integrated product temperatures  
18 from 90 degrees Fahrenheit (F) to 38 degrees F over a 12-hour period (i.e.,  
19 reduction of 4.3 degrees F per hour) when fully loaded with beverage  
20 containers.





1 efficiency standards for the types of new products set forth in subdivisions  
2 2794(a)(6)–(18) of this title. The rules shall provide for each of the following  
3 minimum efficiency standards:

4 (1) Automatic commercial ice-makers shall meet the applicable  
5 requirements of section 1605.3 of the California Code of Regulations, Title 20  
6 as they exist on the date of enactment of this subdivision.

7 (2) Ceiling fans shall have all of the following:

8 (A) Lighting controls separate from fan speed controls.

9 (B) Adjustable speed controls (either more than one speed or variable  
10 speeds).

11 (C) The capability of reversible fan action, except fans designed for  
12 applications where safety standards would be violated by use of the reversible  
13 mode.

14 (3) Ceiling fan light kits shall satisfy one or more of the following:

15 (A) Meet the requirements of the U.S. Environmental Protection  
16 Agency's Energy Star Program (ESP) for Residential Light Fixtures (Version  
17 3.1) and be packaged with lamps to fill all sockets.

18 (B) Be packaged with screw-based compact fluorescent lamps to fill  
19 all sockets, with such lamps meeting the ESP Requirements for Compact  
20 Fluorescent Lamps (Version 3.0).



1           (C) Use and be packaged with light sources, other than compact  
2           fluorescent lamps, that meet the minimum efficacy requirements (as measured  
3           in lumens per watt) of the ESP Requirements for Compact Fluorescent Lamps  
4           (Version 3.0).

5           (4) Commercial clothes washers shall meet the applicable requirements  
6           of section 1605.3 of the California Code of Regulations, Title 20 as they exist  
7           on the date of enactment of this subsection.

8           (5) Commercial prerinse spray valves shall have a flow rate equal to or  
9           less than 1.6 gallons per minute.

10          (6) Commercial refrigerators, freezers, and refrigerator-freezers shall  
11          meet the applicable requirements of section 1605.3 of the California Code of  
12          Regulations, Title 20 as they exist on the date of enactment of this subsection,  
13          except that pulldown refrigerators with transparent doors shall meet a  
14          requirement five percent less stringent than required by that section of the  
15          California Code of Regulations.

16          (7) Digital television adapters shall not use more than one watt in  
17          standby-passive mode and shall not use more than eight watts in “on” mode.

18          (8) Furnace air handlers shall have an Efficiency Rating (EFR) of 2.0 or  
19          less except air handlers for oil-fired furnaces with a capacity of less than  
20          94,000 Btu per hour shall have an EFR of 2.3 or less.

1           (9) Illuminated exit signs shall meet the Version 2.0 Energy Star  
2           Program performance requirements for illuminated exit signs prescribed by the  
3           U.S. Environmental Protection Agency.

4           (10) Large packaged air-conditioning equipment shall meet the Tier 2  
5           efficiency levels of the “Minimum Equipment Efficiencies for Unitary  
6           Commercial Air Conditioners” or “Minimum Equipment Efficiencies for Heat  
7           Pumps,” as appropriate, developed by the Consortium for Energy Efficiency,  
8           Boston, Massachusetts, as in effect on the date of enactment of this subsection.

9           (11) Low voltage dry-type distribution transformers shall meet the  
10          Class 1 efficiency levels for distribution transformers specified in Table 4-2 of  
11          the “Guide for Determining Energy Efficiency for Distribution Transformers”  
12          published by the National Electrical Manufacturers Association (NEMA  
13          Standard TP-1-2002).

14          (12) Torchieres shall consume not more than 190 watts and shall not be  
15          capable of operating with lamps that total more than 190 watts.

16          (13) Red and green traffic signal modules shall meet the product  
17          specification of the “Energy Star Program Requirements for Traffic Signals”  
18          developed by the U.S. Environmental Protection Agency that took effect in  
19          February 2001 and shall be installed with compatible, electrically connected  
20          signal control interface devices and conflict monitoring systems. The  
21          commissioner, in consultation with the secretary of transportation, may exempt

1 specific traffic signals from this requirement upon a determination that  
2 Energy-Star-compliant traffic signal modules would compromise safe signal  
3 operation.

4 (14) Unit heaters shall be equipped with an intermittent ignition device  
5 and shall have either power venting or an automatic flue damper.

6 Sec. 4. 9 V.S.A. § 2796 is amended to read:

7 § 2796. IMPLEMENTATION

8 (a) No new medium voltage dry-type distribution transformer, state-  
9 regulated incandescent reflector lamp, or single-voltage external AC to DC  
10 power supply manufactured on or after January 1, 2008 may be sold or offered  
11 for sale in the state unless the efficiency of the new product meets or exceeds  
12 the efficiency standards set forth in the rules adopted pursuant to section 2795  
13 of this title.

14 (b) On or after January 1, 2009, no new metal halide lamp fixture may be  
15 sold or offered for sale in the state unless the efficiency of the new product  
16 meets or exceeds the efficiency standards set forth in the rules adopted  
17 pursuant to section 2795 of this title. On or after July 31, 2010, no new ceiling  
18 fan, ceiling fan light kit, commercial clothes washer, commercial prerinse  
19 spray valve, digital television adapter, illuminated exit sign, low voltage  
20 dry-type distribution transformer, torchiere, traffic signal module, or unit  
21 heater may be sold or offered for sale in the state unless the efficiency of the

1 new product meets or exceeds the efficiency standards set forth in the rules  
2 adopted pursuant to section 2795 of this title. On or after January 1, 2011, no  
3 new automatic commercial ice-maker, commercial refrigerator or freezer, or  
4 large packaged air-conditioning equipment may be sold or offered for sale in  
5 the state unless the efficiency of the new product meets or exceeds the  
6 efficiency standards set forth in the rules adopted pursuant to section 2795 of  
7 this title.

8 \* \* \*

9 (d) One year after the date upon which the sale or offering for sale of  
10 certain products becomes subject to the requirements of subsection (a) or (b) of  
11 this section, no new products may be installed for compensation in the state  
12 unless the efficiency of a new product meets or exceeds the efficiency  
13 standards set forth in the rules adopted pursuant to section 2795 of this title.

14 (e) Owners and operators of commercial and industrial facilities shall be  
15 allowed to utilize appliances and equipment that do not meet the requirements  
16 of section 2795 of this title for the repair or replacement of existing equipment,  
17 provided that the equipment being repaired or replaced was acquired before the  
18 implementation date determined according to the provisions of this section. At  
19 the discretion of the owners and operators, these appliances and equipment  
20 may be used at any time before or after the effective date of those  
21 requirements.

1        (f) Notwithstanding the dates set out in this section, the requirement to  
2        comply with the standard for an individual product of the type set forth in  
3        subdivisions 2794(a)(6)–(18) of this title shall be suspended until such time as  
4        legislation is passed or administrative rules adopted that require equivalent or  
5        higher standards for that product in states within New England, including  
6        Vermont, with a total population of at least four million people.