A BILL FOR AN ACT

CONCERNING ENERGY EFFICIENCY STANDARDS FOR SPECIFIED DEVICES.

Bill Summary

(Note: This summary applies to this bill as introduced and does not necessarily reflect any amendments that may be subsequently adopted.)

Declares that the use of more energy-efficient appliances can save money, conserve water, reduce pollution, avoid utility infrastructure costs, and benefit local economies.

Adopts statutory standards for the energy efficiency of specified household appliances, commercial equipment, and traffic signals sold in Colorado on or after January 1, 2008, or installed in Colorado on or after January 1, 2009.
Be it enacted by the General Assembly of the State of Colorado:

SECTION 1. 6-7-101, Colorado Revised Statutes, is amended to read:

6-7-101. Short title. This article shall be known and may be cited as the "Residential Building "COLORADO Energy Conservation Act". of 1977".

SECTION 2. 6-7-102, Colorado Revised Statutes, is amended to read:

6-7-102. Legislative declaration. (1) The general assembly hereby finds and declares that:

(a) The energy resources of this state and the nation are essential to the preservation of the public health, welfare, and safety and to the maintenance of a healthy economy;

(b) The conservation and efficient use of said energy resources are necessary if the quality of life in this state is to be maintained and continued;

(c) The purpose of this article is to provide minimum uniform statewide insulation standards to achieve energy conservation in the construction and renovation of residential buildings AND IN THE OPERATION OF CERTAIN APPLIANCES USED IN RESIDENTIAL AND COMMERCIAL BUILDINGS, and to encourage energy conservation by other means in the construction and renovation of residential buildings GENERALLY, recognizing that such energy conservation by insulation or other means must be life cycle cost-effective in order to minimize the adverse impact on residential life-styles and to continue to strive to make reasonably priced housing available to all residents of this state MAXIMIZE
THE ECONOMIC BENEFITS;

(d) The general assembly recognizes the technological improvements developed by the home-building industry AND MANUFACTURING INDUSTRIES in connection with energy conservation for residential buildings and wishes to encourage continued technological improvement by the home-building industry in order to exceed the insulation energy conservation standards contained in this article;

(e) It is the further purpose to establish a process which will result in the development of residential energy conserving performance standards by September 1, 1977. Such standards shall consider PROMOTE CONSUMER AWARENESS OF THE NEED FOR EFFICIENCY IN all uses of energy generated by fossil fuels used within a dwelling, including energy used for lighting, cooking, appliances, maintenance of air temperature, and heating water and the energy lost through the building envelope and exhaust pipes. It is consistent with public policy to encourage the rehabilitation, preservation, and restoration of buildings built before September 1, 1977 IN ACCORDANCE WITH THE MOST RECENT STANDARDS WHENEVER PRACTICABLE.

(f) ENERGY EFFICIENCY STANDARDS, AS SET FORTH IN PART 2 OF THIS ARTICLE, ARE OF PARTICULAR BENEFIT IN ACHIEVING THESE PURPOSES BECAUSE:

(I) SUCH STANDARDS ASSURE CONSUMERS AND BUSINESSES THAT THE APPLIANCES THEY PURCHASE WILL PERFORM EFFICIENTLY, SAVING THEM MONEY ON UTILITY BILLS;

(II) THE WIDESPREAD USE OF MORE EFFICIENT APPLIANCES REDUCES AIR POLLUTION, WATER CONSUMPTION ASSOCIATED WITH ELECTRICAL GENERATION, AND OTHER ENVIRONMENTAL IMPACTS
ASSOCIATED WITH THE PRODUCTION, DISTRIBUTION, AND USE OF ELECTRICITY AND NATURAL GAS;

(III) MORE EFFICIENT APPLIANCES CAN MAKE ELECTRICAL SYSTEMS MORE RELIABLE BY REDUCING THE STRAIN ON A UTILITY'S DISTRIBUTION GRID DURING PEAK DEMAND PERIODS, ULTIMATELY REDUCING THE NEED FOR ADDITIONAL POWER PLANTS, TRANSMISSION LINES, AND OTHER INFRASTRUCTURE; AND

(IV) ENERGY EFFICIENCY STANDARDS CONTRIBUTE TO THE STATE'S ECONOMY BY ENABLING CONSUMERS AND BUSINESS OWNERS TO SPEND LESS ON ENERGY, LEAVING MORE FOR THE PURCHASE OF LOCAL GOODS AND SERVICES.

SECTION 3. Article 7 of title 6, Colorado Revised Statutes, is amended BY THE ADDITION OF A NEW PART to read:

PART 2

ENERGY EFFICIENCY STANDARDS

6-7-201. Legislative declaration. The General Assembly further finds that, with the approval of Amendment Thirty-Seven by Colorado voters at the 2004 statewide general election, which establishes renewable energy standards for large providers of retail electric service, Colorado citizens consider the conservation and efficient use of energy important for the economic and environmental welfare and development of Colorado. In furtherance of the important goals of energy conservation and efficiency, the General Assembly is enacting this Part 2 to establish energy efficiency standards applicable to certain commercial and consumer products and appliances.

6-7-202. Definitions. As used in this Part 2, unless the
CONTEXT OTHERWISE REQUIRES:

(1) "AUTOMATIC COMMERCIAL ICE-MAKER" MEANS A FACTORY-MADE ASSEMBLY THAT IS SHIPPED IN ONE OR MORE PACKAGES, CONSISTS OF A CONDENSING UNIT AND ICE-MAKING SECTION OPERATING AS AN INTEGRATED UNIT, MAKES AND HARVESTS ICE CUBES, AND STORES OR DISPENSES ICE. THE TERM INCLUDES MACHINES WITH CAPACITIES BETWEEN FIFTY AND TWO THOUSAND FIVE HUNDRED POUNDS PER TWENTY-FOUR-HOUR PERIOD.

(2) "BALLAST" MEANS A DEVICE USED WITH AN ELECTRIC DISCHARGE LAMP TO OBTAIN NECESSARY CIRCUIT CONDITIONS, INCLUDING VOLTAGE, CURRENT, AND WAVE FORM, FOR STARTING AND OPERATING THE LAMP.

(3) "COMMERCIAL", IN REFERENCE TO AN APPLIANCE, MEANS DESIGNED FOR USE IN APPLICATIONS WHERE THE OCCUPANTS OF MORE THAN ONE HOUSEHOLD WILL BE USING THE APPLIANCE OR WHERE IT WILL BE USED AS PART OF A PROFIT-MAKING ENTERPRISE. EXAMPLES OF SUCH APPLICATIONS INCLUDE, WITHOUT LIMITATION, A GROCERY STORE, A COIN LAUNDRY, AND THE COMMON AREA OF AN APARTMENT BUILDING OR OTHER MULTIFAMILY DWELLING.

(4) "COMMERCIAL PRE-RINSE SPRAY VALVE" MEANS A HAND HELD DEVICE DESIGNED TO SPRAY WATER ON DISHES, FLATWARE, AND OTHER FOOD SERVICE ITEMS FOR THE PURPOSE OF REMOVING FOOD RESIDUE PRIOR TO CLEANING.

(5) (a) "COMMERCIAL REFRIGERATOR, FREEZER, AND REFRIGERATOR-FREEZER" MEANS SELF-CONTAINED REFRIGERATION EQUIPMENT THAT:
(I) IS NOT A CONSUMER PRODUCT REGULATED PURSUANT TO 42 U.S.C. SEC. 6291, ET SEQ.;

(II) OPERATES AT A CHILLED, FROZEN, COMBINATION CHILLED AND FROZEN, OR VARIABLE TEMPERATURE FOR THE PURPOSE OF STORING OR MERCHANDISING FOOD, BEVERAGES, OR ICE;

(III) MAY HAVE TRANSPARENT OR SOLID HINGED DOORS, SLIDING DOORS, OR A COMBINATION OF HINGED AND SLIDING DOORS; AND

(IV) INCORPORATES MOST COMPONENTS INVOLVED IN THE VAPOR-COMPRESSION CYCLE AND THE REFRIGERATED COMPARTMENT IN A SINGLE CABINET.

(b) THE TERM DOES NOT INCLUDE:

(I) UNITS WITH EIGHTY-FIVE CUBIC FEET OF Capacity OR GREATER;

(II) WALK-IN MODELS;

(III) UNITS WITH NO DOORS; AND

(IV) FREEZERS SPECIFICALLY DESIGNED FOR ICE CREAM.

(6) "DIGITAL TELEVISION ADAPTER" MEANS AN ELECTRONIC PRODUCT THE SOLE PURPOSE OF WHICH IS THE CONVERSION OF DIGITAL VIDEO TERRESTRIAL BROADCAST SIGNALS TO ANALOG NTSC VIDEO SIGNALS FOR USE BY AN ANALOG DEVICE SUCH AS A TELEVISION. THE TERM DOES NOT INCLUDE CABLE OR SATELLITE TELEVISION SET-TOP BOXES.

(7) "HIGH-INTENSITY DISCHARGE LAMP" MEANS A LAMP IN WHICH LIGHT IS PRODUCED BY THE PASSAGE OF AN ELECTRIC CURRENT THROUGH A VAPOR OR GAS, 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.
"ILLUMINATED EXIT SIGN" means an internally illuminated sign that:

(a) is designed to be permanently installed within a building to identify an exit door; and

(b) consists of an electrically powered integral light source that illuminates the legend "EXIT" and any directional indicators and that provides contrast between the legend, any directional indicators, and the background.

"LARGE PACKAGED AIR CONDITIONING EQUIPMENT" means electrically operated, air-cooled air conditioning and air conditioning heat pump equipment that:

(a) has cooling capacity of at least two hundred forty thousand BTU per hour but less than seven hundred sixty thousand BTU per hour; and

(b) is built and shipped as a package to the end user's site for installation at the same time.

"LOW-VOLTAGE, DRY-TYPE DISTRIBUTION TRANSFORMER" means a distribution transformer that has an input voltage of six hundred volts or less, is cooled primarily by air rather than oil or other liquid coolant, and is rated for operation at a frequency of sixty hertz.

"METAL HALIDE LAMP" means a high-intensity discharge lamp in which the major portion of the light is produced by radiation of metal halides and their products of dissociation, which may be in combination with metallic vapors.

"METAL HALIDE LAMP FIXTURE" means a light fixture designed to be operated with a metal halide lamp and a ballast.
"FOR A METAL HALIDE LAMP.

(13) "PROBE-START METAL HALIDE BALLAST" MEANS A BALLAST USED TO OPERATE METAL HALIDE LAMPS THAT DOES NOT CONTAIN AN IGNITOR AND INSTEAD STARTS LAMPS BY USING A THIRD STARTING ELECTRODE PROBE IN THE ARC TUBE.

(14) "PULLDOWN REFRIGERATOR" MEANS A COMMERCIAL REFRIGERATOR SPECIFICALLY DESIGNED TO RAPIDLY REDUCE ALL INTEGRATED PRODUCT TEMPERATURES FROM NINETY DEGREES FAHRENHEIT TO THIRTY-EIGHT DEGREES FAHRENHEIT OVER A TWELVE-HOUR PERIOD WHEN FULLY LOADED WITH BEVERAGE CONTAINERS.

(15) "SINGLE-VOLTAGE EXTERNAL AC TO DC POWER SUPPLY" MEANS A DEVICE THAT:

(a) IS DESIGNED TO CONVERT LINE VOLTAGE AC INPUT INTO LOWER VOLTAGE DC OUTPUT;

(b) IS ABLE TO CONVERT TO ONLY ONE DC OUTPUT VOLTAGE AT A TIME;

(c) IS SOLD OR INTENDED TO BE USED WITH A SEPARATE END-USE PRODUCT THAT CONSTITUTES THE PRIMARY POWER LOAD;

(d) IS CONTAINED WITHIN A SEPARATE PHYSICAL ENCLOSURE FROM THE END-USE PRODUCT;

(e) IS CONNECTED TO THE END-USE PRODUCT BY WAY OF A REMOVABLE OR HARD-WIRED MALE/FEMALE ELECTRICAL CONNECTION, CABLE, CORD, OR OTHER WIRING;

(f) DOES NOT HAVE BATTERIES OR BATTERY PACKS THAT PHYSICALLY ATTACH DIRECTLY TO THE POWER SUPPLY UNIT, INCLUDING REMOVABLE BATTERIES OR BATTERY PACKS;
(g) DOES NOT HAVE:

(I) A BATTERY CHEMISTRY OR TYPE SELECTOR SWITCH AND INDICATOR LIGHT; OR

(II) A BATTERY CHEMISTRY OR TYPE SELECTOR SWITCH AND A STATE OF CHARGE METER; AND

(h) HAS A NAMEPLATE OUTPUT POWER NO GREATER THAN TWO HUNDRED FIFTY WATTS.

(16) "STATE-REGULATED INCANDESCENT REFLECTOR LAMP" MEANS A LAMP THAT:

(a) IS NOT COLORED OR DESIGNED FOR ROUGH OR VIBRATION SERVICE APPLICATIONS;

(b) HAS AN INNER REFLECTIVE COATING ON THE OUTER BULB TO DIRECT THE LIGHT, AN E26 MEDIUM SCREW BASE, AND A RATED VOLTAGE OR VOLTAGE RANGE THAT LIES AT LEAST PARTIALLY WITHIN ONE HUNDRED FIFTEEN AND ONE HUNDRED THIRTY VOLTS;

(c) (I) HAS A BULGED REFLECTOR OR ELLIPTICAL REFLECTOR SHAPE WITH A DIAMETER OF AT LEAST TWO AND ONE-QUARTER INCHES; OR

(II) HAS A REFLECTOR, PARABOLIC ALUMINIZED REFLECTOR, OR SIMILAR BULB SHAPE WITH A DIAMETER OF BETWEEN TWO AND ONE-QUARTER AND TWO AND THREE-QUARTER INCHES; AND

(d) IS NOT A FIFTY WATT ELLIPTICAL REFLECTOR (ER) LAMP.

(17) "SWIMMING POOL PUMP MOTOR" MEANS A PUMP AND MOTOR COMBINATION USED TO CIRCULATE AND FILTER SWIMMING POOL WATER IN A RESIDENTIAL SWIMMING POOL.

(18) "TORCHIERE FIXTURE" MEANS A PORTABLE ELECTRIC LIGHTING FIXTURE WITH A REFLECTIVE BOWL THAT DIRECTS LIGHT UPWARD SO AS TO PROVIDE INDIRECT ILLUMINATION TO A ROOM. THE
TERM MAY ALSO INCLUDE A DOWNWARD-DIRECTED LAMP OF SIMILAR DESIGN.

(19) "TRAFFIC SIGNAL" MEANS A DEVICE CONTAINING ONE OR MORE TRAFFIC SIGNAL MODULES AND PLACED ON OR NEAR A ROADWAY TO REGULATE TRAFFIC USING PRESCRIBED SYMBOLS AND SEQUENCES OF RED, AMBER, AND GREEN LIGHT.

(20) "TRAFFIC SIGNAL MODULE" MEANS A STANDARD EIGHT-INCH-OR TWELVE-INCH-DIAMETER ROUND TRAFFIC SIGNAL INDICATOR CONSISTING OF A LIGHT SOURCE, LENS, AND ALL PARTS NECESSARY FOR OPERATION.

(21) "TRANSFORMER" MEANS A DEVICE CONTAINING TWO OR MORE COILS OF INSULATED WIRE AND DESIGNED TO TRANSFER ALTERNATING CURRENT BY ELECTROMAGNETIC INDUCTION FROM ONE COIL TO ANOTHER WHILE CHANGING THE ORIGINAL VOLTAGE OR CURRENT VALUE TO A DIFFERENT VALUE; EXCEPT THAT, FOR PURPOSES OF THIS PART 2, THE TERM DOES NOT INCLUDE:

(a) Transformers with multiple voltage taps and with the highest voltage tap equaling at least twenty percent more than the lowest voltage tap; and

(b) Drive transformers, rectifier transformers, auto-transformers, uninterruptible power system transformers, impedance transformers, regulating transformers, sealed and nonventilated transformers, testing transformers, or any other transformer that is designed to be used in a special-purpose application and is unlikely to be used in general-purpose applications.

(22) "UNIT HEATER" MEANS A SELF-CONTAINED, VENTED,
FAN-TYPE COMMERCIAL SPACE HEATER THAT USES NATURAL GAS OR PROPANE AND IS DESIGNED TO BE INSTALLED WITHOUT DUCTS WITHIN A HEATED SPACE. THE TERM DOES NOT INCLUDE ANY PRODUCT COVERED BY FEDERAL STANDARDS ESTABLISHED PURSUANT TO 42 U.S.C. SEC. 6291 OR A PRODUCT THAT IS A DIRECT-VENT, FORCED-FLUE HEATER WITH A SEALED-COMBUSTION BURNER.

6-7-203. Complying products - sale - installation - certification - exceptions. (1) (a) UNLESS EXEMPTED UNDER SUBSECTION (3) OF THIS SECTION, AND EXCEPT AS PROVIDED IN PARAGRAPH (b) OF THIS SUBSECTION (1), NEW PRODUCTS THAT DO NOT MEET OR EXCEED THE APPLICABLE STANDARDS SET FORTH IN THIS PART 2:

(I) SHALL NOT BE SOLD IN COLORADO ON OR AFTER JANUARY 1, 2008; AND

(II) SHALL NOT BE INSTALLED IN COLORADO ON OR AFTER JANUARY 1, 2009.

(b) NEW COMMERCIAL REFRIGERATORS AND FREEZERS AND NEW LARGE PACKAGED AIR CONDITIONING EQUIPMENT THAT DO NOT MEET THE APPLICABLE STANDARDS SET FORTH IN THIS PART 2:

(I) SHALL NOT BE SOLD IN COLORADO ON OR AFTER JANUARY 1, 2010; AND

(II) SHALL NOT BE INSTALLED IN COLORADO ON OR AFTER JANUARY 1, 2011.

(2) A MANUFACTURER OF A PRODUCT SUBJECT TO THE REQUIREMENTS OF THIS PART 2 SHALL TEST SAMPLES OF THE PRODUCT, WHEN NECESSARY, TO DETERMINE COMPLIANCE WITH THE APPLICABLE STANDARDS FOR THE PRODUCT AS SPECIFIED IN THIS PART 2. A MANUFACTURER SHALL CERTIFY IN WRITING TO THE ATTORNEY GENERAL
THAT THE PRODUCT SOLD IN COLORADO MEETS THE EFFICIENCY STANDARDS APPLICABLE TO THE PRODUCT AS SPECIFIED IN THIS PART 2. IF A MANUFACTURER HAS PROVIDED A CERTIFICATION TO A STATE THAT HAS STANDARDS IDENTICAL TO THE STANDARDS SPECIFIED IN THIS PART 2 AND THAT PUBLISHES A DATABASE OF COMPLIANT PRODUCTS, THE MANUFACTURER MAY SATISFY THE CERTIFICATION REQUIREMENT OF THIS SUBSECTION (2) BY PROVIDING A COPY OF THE CERTIFICATION PROVIDED TO THE OTHER STATE OR OTHER PROOF DEEMED APPROPRIATE BY THE ATTORNEY GENERAL DEMONSTRATING THAT THE PRODUCT COMPLIES WITH THE OTHER STATE’S STANDARDS.

(3) THIS PART 2 SHALL NOT APPLY TO:

(a) NEW PRODUCTS MANUFACTURED IN COLORADO AND SOLD OUTSIDE OF COLORADO;

(b) NEW PRODUCTS MANUFACTURED OUTSIDE OF COLORADO AND SOLD AT WHOLESALE IN COLORADO FOR FINAL RETAIL SALE AND INSTALLATION OUTSIDE OF COLORADO;

(c) PRODUCTS INSTALLED IN MOBILE HOMES OR MANUFACTURED HOMES AT THE TIME OF CONSTRUCTION;

(d) PRODUCTS DESIGNED EXPRESSLY FOR INSTALLATION AND USE IN RECREATIONAL VEHICLES.

(4) SALE OR INSTALLATION OF A NONCOMPLYING PRODUCT IN VIOLATION OF THIS SECTION SHALL CONSTITUTE A DECEPTIVE TRADE PRACTICE UNDER SECTION 6-1-105 (1) (xx).

6-7-204. Applicable standards - automatic commercial ice-makers. (1) AUTOMATIC COMMERCIAL ICE-MAKERS SHALL HAVE DAILY ENERGY USE AND DAILY WATER USE NO GREATER THAN THE FOLLOWING APPLICABLE VALUES:
<table>
<thead>
<tr>
<th>Equipment Cooling</th>
<th>Harvest Rate (LBS. ICE/24 HRS.)</th>
<th>Maximum Energy (K WH/100 LBS. ICE)</th>
<th>Maximum Condenser Water Use (GAL/100 LBS. ICE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ice Making Water</td>
<td>&lt; 500</td>
<td>7.80 - .0055H</td>
<td>200 - .022H</td>
</tr>
<tr>
<td>Head</td>
<td>500 &lt; 1436</td>
<td>5.58 - .0011H</td>
<td>200 - .022H</td>
</tr>
<tr>
<td></td>
<td>1436 4.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ice Making Air</td>
<td>&lt; 450</td>
<td>10.26 - .0086H</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Head</td>
<td>450</td>
<td>6.89 - .0011H</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Remote Air</td>
<td>&lt; 1000</td>
<td>8.85 - .0038H</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Condensing;</td>
<td>1000 5.10</td>
<td></td>
<td>Not Applicable</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Remote Air</td>
<td>&lt; 934</td>
<td>8.85 - .0038H</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Condensing</td>
<td>934</td>
<td>5.30</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>&amp; Compressor</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self Water</td>
<td>&lt; 200</td>
<td>11.40 - .019H</td>
<td>191 - .0315H</td>
</tr>
<tr>
<td>Contained</td>
<td>200</td>
<td>7.60</td>
<td>191 - .0315H</td>
</tr>
<tr>
<td>Self Air</td>
<td>&lt; 175</td>
<td>18 - .0469H</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Contained</td>
<td>175</td>
<td>9.80</td>
<td>Not Applicable</td>
</tr>
</tbody>
</table>

(2) For purposes of this section:

(a) "H" means the harvest rate in pounds per twenty-four hours, which shall be reported within five percent of the tested value.

(b) "Ice-making head" includes all automatic commercial ice cube machines that are not split system ice makers or
SELF-CONTAINED MODELS AS DEFINED IN STANDARD NUMBER ARI 810-2003 AS PUBLISHED BY THE AIR-CONDITIONING AND REFRIGERATION INSTITUTE, ALSO REFERRED TO IN THIS SUBSECTION (2) AS ARI.

(c) Water use is for the condenser only and does not include potable water used to make ice.

(d) Automatic commercial ice cube machines shall be tested in accordance with ARI 810-2003 test method as published by the ARI.

6-7-205. Applicable standards - commercial pre-rinse spray valves. Commercial pre-rinse spray valves shall have a flow rate no greater than 1.6 gallons per minute when measured in accordance with the American Society for Testing and Materials (ASTM) "Standard Test Method for Pre-rinse Spray Valves", ASTM F2324-03.

6-7-206. Applicable standards - commercial refrigerators and freezers - definitions. (1) The daily energy consumption of commercial refrigerators and freezers shall not exceed the applicable values as follows:

<table>
<thead>
<tr>
<th>EQUIPMENT TYPE</th>
<th>DOORS</th>
<th>MAXIMUM DAILY ENERGY CONSUMPTION (KWH)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Refrigerators</td>
<td>Solid</td>
<td>0.10V + 2.04</td>
</tr>
<tr>
<td></td>
<td>Transparent</td>
<td>0.12V + 3.34</td>
</tr>
<tr>
<td>Pulldown Refrigerators</td>
<td>Transparent</td>
<td>0.126V + 3.51</td>
</tr>
<tr>
<td>Freezers</td>
<td>Solid</td>
<td>0.40V + 1.38</td>
</tr>
</tbody>
</table>
TRANSPARENT 0.75V + 4.10

REFRIGERATOR- SOLID (0.27AV - 0.71) OR 0.70,
FREEZERS WHICHEVER IS GREATER

(2) For purposes of subsection (1) of this section:

(a) "KWh" means kilowatt hours.
(b) "V" means total volume in cubic feet (ft³), as defined by the Association of Home Appliance Manufacturers test method HRF1-1979.
(c) "AV" means adjusted volume, using the formula [1.63 x freezer volume (ft³)] + refrigeration volume (ft³).
(d) Daily energy consumption shall be measured in accordance with the American National Standards Institute (ANSI)/American Society of Heating, Refrigerating, and Air Conditioning Engineers (ASHRAE) test method 117-2002; except that the controls of all appliances shall be adjusted to obtain the following product temperatures:

<table>
<thead>
<tr>
<th>Product or Compartment</th>
<th>Integrated Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Refrigerator</td>
<td>38 ± 2</td>
</tr>
<tr>
<td>Freezer</td>
<td>0 ± 2</td>
</tr>
</tbody>
</table>

6-7-207. Applicable standards - digital television adapters.

Digital television adapters shall not use more than one watt in passive-standby mode and eight watts in "on" mode. For purposes of this section, "passive-standby" mode and "on" mode power consumption shall be measured in accordance with the International Electrotechnical Commission (IEC) test method 62087:2002(E), "Methods of measurement for the Power
CONSUMPTION OF AUDIO, VIDEO, AND RELATED EQUIPMENT”.

6-7-208. Applicable standards - illuminated exit signs.
ILLUMINATED EXIT SIGNS SHALL HAVE AN INPUT POWER DEMAND OF NOT MORE THAN FIVE WATTS PER ILLUMINATED FACE, MEASURED IN ACCORDANCE WITH THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY’S "ENERGY STAR" EXIT SIGN PROGRAM (VERSION 3.0) CONDITIONS FOR TESTING, AND SHALL MEET ALL APPLICABLE BUILDING AND SAFETY CODES.

6-7-209. Applicable standards - large packaged air conditioning equipment. (1) LARGE PACKAGED AIR CONDITIONING EQUIPMENT SHALL MEET THE FOLLOWING APPLICABLE ENERGY EFFICIENCY RATIOS (EER):
   (a) 10.0 EER FOR AIR-CONDITIONING EQUIPMENT WITHOUT AN INTEGRATED HEATING COMPONENT OR WITH ELECTRIC RESISTANCE HEATING INTEGRATED INTO THE UNIT;
   (b) 9.8 EER FOR AIR-CONDITIONING EQUIPMENT WITH HEATING OTHER THAN ELECTRIC RESISTENCE INTEGRATED INTO THE UNIT;
   (c) 9.5 EER FOR AIR-CONDITIONING HEAT PUMP EQUIPMENT WITHOUT AN INTEGRATED HEATING COMPONENT OR WITH ELECTRIC RESISTANCE HEATING INTEGRATED INTO THE UNIT; AND
   (d) 9.3 EER FOR AIR-CONDITIONING HEAT PUMP EQUIPMENT WITH HEATING OTHER THAN ELECTRIC RESISTENCE INTEGRATED INTO THE UNIT.

(2) LARGE PACKAGED AIR-CONDITIONING HEAT PUMP EQUIPMENT SHALL MEET A MINIMUM COEFFICIENT OF PERFORMANCE IN THE HEATING MODE OF 3.2, MEASURED AT A HIGH TEMPERATURE RATING OF 47 DEGREES FAHRENHEIT DRY BULB.

(3) FOR PURPOSES OF THIS SECTION, ENERGY EFFICIENCY SHALL BE
MEASURED IN ACCORDANCE WITH AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI)/AMERICAN SOCIETY OF HEATING, REFRIGERATING, AND AIR CONDITIONING ENGINEERS (ASHRAE) TEST METHOD 340/360-2000.

6-7-210. Applicable standards - low-voltage, dry-type distribution transformers. LOW-VOLTAGE, DRY-TYPE DISTRIBUTION TRANSFORMERS SHALL MEET THE CLASS 1 EFFICIENCY LEVELS FOR LOW VOLTAGE DISTRIBUTION TRANSFORMERS SPECIFIED IN TABLE 4-2 OF THE "GUIDE FOR DETERMINING ENERGY EFFICIENCY FOR DISTRIBUTION TRANSFORMERS" PUBLISHED BY THE NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION (NEMA), STANDARD TP-1-2002.

6-7-211. Applicable standards - metal halide lamp fixtures. METAL HALIDE LAMP FIXTURES DESIGNED TO BE OPERATED WITH LAMPS RATED AT LEAST ONE HUNDRED FIFTY WATTS BUT NO MORE THAN FIVE HUNDRED WATTS SHALL NOT CONTAIN A PROBE-START METAL HALIDE LAMP BALLAST.

6-7-212. Applicable standards - single-voltage external AC to DC power supplies. (1) SINGLE-VOLTAGE EXTERNAL AC TO DC POWER SUPPLIES SHALL MEET THE FOLLOWING REQUIREMENTS:

<table>
<thead>
<tr>
<th>NAMEPLATE OUTPUT</th>
<th>MINIMUM EFFICIENCY (ACTIVE MODE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 1 Watt</td>
<td>0.49 x NAMEPLATE OUTPUT</td>
</tr>
<tr>
<td>1 Watt</td>
<td>49 WATTS 0.09 x LN (NAMEPLATE OUTPUT) + 0.49</td>
</tr>
<tr>
<td>&gt; 49 WATTS</td>
<td>0.84</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>NAMEPLATE OUTPUT</th>
<th>MAXIMUM ENERGY CONSUMPTION (NO-LOAD MODE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 10 WATTS</td>
<td>0.5 WATTS</td>
</tr>
<tr>
<td>10 WATTS 250 WATTS</td>
<td>0.75 WATTS</td>
</tr>
</tbody>
</table>

(2) FOR PURPOSES OF THIS SECTION:
(a) "LN (NAMEPLATE OUTPUT)" MEANS THE NATURAL LOGARITHM OF THE NAMEPLATE OUTPUT EXPRESSED IN WATTS.

(b) EFFICIENCY OF SINGLE-VOLTAGE EXTERNAL AC TO DC POWER SUPPLIES SHALL BE MEASURED IN ACCORDANCE WITH THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY'S TEST METHODOLOGY INCLUDED IN THE "ENERGY STAR" PROGRAM REQUIREMENTS FOR SINGLE-VOLTAGE EXTERNAL AC TO DC AND AC TO AC POWER SUPPLIES PUBLISHED IN JANUARY, 2005.

6-7-213. Applicable standards - state-regulated incandescent reflector lamps. (1) STATE-REGULATED INCANDESCENT REFLECTOR LAMPS SHALL MEET THE FOLLOWING MINIMUM EFFICACIES:

<table>
<thead>
<tr>
<th>WATTAGE</th>
<th>MINIMUM EFFICACY (LUMENS PER WATT)</th>
</tr>
</thead>
<tbody>
<tr>
<td>40 - 50</td>
<td>10.5</td>
</tr>
<tr>
<td>51 - 66</td>
<td>11.0</td>
</tr>
<tr>
<td>67 - 85</td>
<td>12.5</td>
</tr>
<tr>
<td>86 - 115</td>
<td>14.0</td>
</tr>
<tr>
<td>116 - 155</td>
<td>14.5</td>
</tr>
<tr>
<td>156 - 205</td>
<td>15.0</td>
</tr>
</tbody>
</table>

(2) LAMP EFFICACY SHALL BE MEASURED IN ACCORDANCE WITH THE APPLICABLE FEDERAL TEST METHOD IN 10 CFR 430.23.

6-7-214. Applicable standards - torchiere fixtures. A TORCHIERE FIXTURE SHALL NOT CONSUME MORE THAN ONE HUNDRED NINETY WATTS IF ANY COMMERCIALY AVAILABLE LAMP OR COMBINATION OF LAMPS CAN BE INSERTED IN ITS SOCKET AND CAUSE THE TORCHIERE TO DRAW MORE THAN ONE HUNDRED NINETY WATTS WHEN OPERATED AT FULL BRIGHTNESS.

6-7-215. Applicable standards - traffic signal modules.
(1) Traffic signal modules shall be installed with compatible, electronically-connected signal control interface devices and conflict monitoring systems and shall have maximum and nominal wattage that do not exceed the following applicable values:

<table>
<thead>
<tr>
<th>Module Type</th>
<th>Maximum Wattage (at 74°C)</th>
<th>Nominal Wattage (at 25°C)</th>
</tr>
</thead>
<tbody>
<tr>
<td>12&quot; Red Ball (or 300 mm circular)</td>
<td>17</td>
<td>11</td>
</tr>
<tr>
<td>8&quot; Red Ball (or 200 mm circular)</td>
<td>13</td>
<td>8</td>
</tr>
<tr>
<td>12&quot; Red Arrow (or 300 mm arrow)</td>
<td>12</td>
<td>9</td>
</tr>
<tr>
<td>12&quot; Green Ball (or 300 mm circular)</td>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td>8&quot; Green Ball (or 200 mm circular)</td>
<td>12</td>
<td>12</td>
</tr>
<tr>
<td>12&quot; Green Arrow (or 300 mm arrow)</td>
<td>11</td>
<td>11</td>
</tr>
</tbody>
</table>

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

6-7-216. Applicable standards - unit heaters. Natural gas-fired unit heaters shall be equipped with intermittent...
IGNITION DEVICES AND SHALL HAVE EITHER POWER VENTING OR AN AUTOMATIC FLUE DAMPER.

6-7-217. Applicable standards - swimming pool pump motors.
SWIMMING POOL PUMP MOTORS SHALL NOT BE SPLIT-PHASE OR CAPACITOR START-INDUCTION RUN TYPE. ALL SWIMMING POOL PUMP MOTORS WITH TOTAL CAPACITY OF AT LEAST ONE HORSEPOWER (HP) SHALL HAVE THE ABILITY TO OPERATE AT A MINIMUM OF TWO SPEEDS, AND THE LOW SPEED SHALL HAVE A ROTATION RATE THAT IS NO MORE THAN HALF OF THE MOTOR'S MAXIMUM ROTATION RATE. ALL POOL PUMP MOTOR CONTROLS SHALL HAVE THE ABILITY TO OPERATE THE POOL PUMP AT A MINIMUM OF TWO SPEEDS. THE DEFAULT CIRCULATION SPEED SHALL BE THE LOWEST SPEED, AND ANY HIGH-SPEED OVERRIDE CAPABILITY SHALL BE FOR A TEMPORARY PERIOD, NOT TO EXCEED ONE NORMAL CYCLE.

SECTION 4. 6-1-105 (1), Colorado Revised Statutes, is amended BY THE ADDITION OF A NEW PARAGRAPH to read:

6-1-105. Deceptive trade practices. (1) A person engages in a deceptive trade practice when, in the course of such person's business, vocation, or occupation, such person:

(xx) KNOWINGLY SELLS OR INSTALLS A PRODUCT THAT DOES NOT MEET OR EXCEED AN APPLICABLE ENERGY EFFICIENCY STANDARD SET FORTH IN PART 2 OF ARTICLE 7 OF THIS TITLE IN VIOLATION OF SECTION 6-7-203.

SECTION 5. 6-7-104, Colorado Revised Statutes, is amended to read:

6-7-104. Exemptions from this part 1. The standards set forth in this article PART 1 shall not apply to the design and construction or renovation of private garages, carports, sheds, agricultural buildings,
tanks, factory-constructed housing, towers, and those buildings which have been designated as historic by the governing body of a county or municipality or which have been included on the state register of historic properties pursuant to article 80.1 of title 24, C.R.S., or the national register of historic places maintained pursuant to 16 U.S.C. sec. 470a.

SECTION 6. 6-7-106, Colorado Revised Statutes, is amended to read:

6-7-106. Building permits. (1) No building permit shall be issued for the construction or renovation of any residential buildings in any area under the jurisdiction of a local government on or after October 1, 1977, unless such construction or renovation will conform to the provisions of this article PART 1. The local building inspector shall inspect all places not inspected by the division of housing pursuant to part 7 of article 32 of title 24, C.R.S., to determine whether such places are in compliance with the insulation standards required by this article PART 1.

(2) Nothing in this article PART 1 shall be construed to restrict or limit the authority of a county or municipality to adopt and enforce standards for efficient construction and renovation which are no less stringent than the standards contained in section 6-7-105. Any county or municipality adopting such standards may accept computations submitted by a licensed architect or licensed engineer that the design of the proposed building meets or exceeds the locally adopted energy efficiency standards.

SECTION 7. Effective date. This act shall take effect at 12:01 a.m. on the day following the expiration of the ninety-day period after final adjournment of the general assembly that is allowed for submitting
a referendum petition pursuant to article V, section 1 (3) of the state constitution (August 10, 2005, if adjournment sine die is on May 11, 2005); except that, if a referendum petition is filed against this act or an item, section, or part of this act within such period, then the act, item, section, or part, if approved by the people, shall take effect on the date of the official declaration of the vote thereon by proclamation of the governor.