

General Assembly

January Session, 2021

## Raised Bill No. 863

LCO No. **3153** 

Referred to Committee on ENERGY AND TECHNOLOGY

Introduced by: (ET)

## AN ACT CONCERNING ENERGY EFFICIENCY STANDARDS.

Be it enacted by the Senate and House of Representatives in General Assembly convened:

- Section 1. Section 16a-48 of the general statutes is repealed and the
   following is substituted in lieu thereof (*Effective July 1, 2021*):
- 3 (a) As used in this section:
- 4 (1) "Department" means the Department of Energy and 5 Environmental Protection;
- 6 (2) "Fluorescent lamp ballast" or "ballast" means a device designed to 7 operate fluorescent lamps by providing a starting voltage and current 8 and limiting the current during normal operation, but does not include 9 such devices that have a dimming capability or are intended for use in 10 ambient temperatures of zero degrees Fahrenheit or less or have a 11 power factor of less than sixty-one hundredths for a single F40T12 lamp;
- 12 (3) "F40T12 lamp" means a tubular fluorescent lamp that is a nominal
- 13 forty-watt lamp, with a forty-eight-inch tube length and one and one-
- 14 half inches in diameter;

(4) "F96T12 lamp" means a tubular fluorescent lamp that is a nominal
seventy-five-watt lamp with a ninety-six-inch tube length and one and
one-half inches in diameter;

(5) "Luminaire" means a complete lighting unit consisting of a
fluorescent lamp, or lamps, together with parts designed to distribute
the light, to position and protect such lamps, and to connect such lamps
to the power supply;

(6) "New product" means a product that is sold, offered for sale, or
installed for the first time and specifically includes floor models and
demonstration units;

(7) "Commissioner" means the Commissioner of Energy andEnvironmental Protection;

27 (8) "State Building Code" means the building code adopted pursuant28 to section 29-252;

(9) "Torchiere lighting fixture" means a portable electric lighting
fixture with a reflector bowl giving light directed upward so as to give
indirect illumination;

32 (10) "Unit heater" means a self-contained, vented fan-type 33 commercial space heater that uses natural gas or propane and that is 34 designed to be installed without ducts within the heated space. "Unit 35 heater" does not include a product regulated by federal standards 36 pursuant to 42 USC 6291, as amended from time to time, a product that 37 is a direct vent, forced flue heater with a sealed combustion burner, or 38 any oil fired heating system;

(11) "Transformer" means a device consisting of two or more coils of
insulated wire that transfers alternating current by electromagnetic
induction from one coil to another in order to change the original
voltage or current value;

(12) "Low-voltage dry-type transformer" means a transformer that:(A) Has an input voltage of six hundred volts or less; (B) is between

45 fourteen kilovolt-amperes and two thousand five hundred one kilovolt-46 amperes in size; (C) is air-cooled; and (D) does not use oil as a coolant. 47 "Low-voltage dry-type transformer" does not include such transformers 48 excluded from the low-voltage dry-type distribution transformer 49 definition contained in the California Code of Regulations, Title 20: 50 Division 2, Chapter 4, Article 4: Appliance Efficiency Regulations; 51 (13) "Pass-through cabinet" means a refrigerator or freezer with 52 hinged or sliding doors on both the front and rear of the refrigerator or 53 freezer; 54 (14) "Reach-in cabinet" means a refrigerator, freezer, or combination

55 thereof, with hinged or sliding doors or lids;

(15) "Roll-in" or "roll-through cabinet" means a refrigerator or freezer
with hinged or sliding doors that allows wheeled racks of product to be
rolled into or through the refrigerator or freezer;

(16) "Commercial refrigerators and freezers" means reach-in cabinets,
pass-through cabinets, roll-in cabinets and roll-through cabinets that
have less than eighty-five feet of capacity, which are designed for the
refrigerated or frozen storage of food and food products;

(17) "Traffic signal module" means a standard eight-inch or twelveinch round traffic signal indicator consisting of a light source, lens and
all parts necessary for operation and communication of movement
messages to drivers through red, amber and green colors;

(18) "Illuminated exit sign" means an internally illuminated sign that
is designed to be permanently fixed in place and used to identify an exit
by means of a light source that illuminates the sign or letters from within
where the background of the exit sign is not transparent;

(19) "Packaged air-conditioning equipment" means air-conditioning
equipment that is built as a package and shipped as a whole to end-user
sites;

74 (20) "Large packaged air-conditioning equipment" means air-cooled

packaged air-conditioning equipment having not less than two hundredforty thousand BTUs per hour of capacity;

77 (21) "Commercial clothes washer" means a soft mount front-loading 78 or soft mount top-loading clothes washer that is designed for use in (A) 79 applications where the occupants of more than one household will be 80 using it, such as in multifamily housing common areas and coin 81 laundries; or (B) other commercial applications, if the clothes container 82 compartment is no greater than three and one-half cubic feet for 83 horizontal-axis clothes washers or no greater than four cubic feet for 84 vertical-axis clothes washers;

(22) "Energy efficiency ratio" means a measure of the relative
efficiency of a heating or cooling appliance that is equal to the unit's
output in BTUs per hour divided by its consumption of energy,
measured in watts;

89 (23) "Electricity ratio" means the ratio of furnace electricity use to total90 furnace energy use;

91 (24) "Boiler" means a space heater that is a self-contained appliance
92 for supplying steam or hot water primarily intended for space-heating.
93 "Boiler" does not include hot water supply boilers;

94 (25) "Central furnace" means a self-contained space heater designed95 to supply heated air through ducts of more than ten inches in length;

96 (26) "Residential furnace or boiler" means a product that utilizes only 97 single-phase electric current or single-phase electric current or DC 98 current in conjunction with natural gas, propane or home heating oil 99 and that (A) is designed to be the principal heating source for the living 100 space of a residence; (B) is not contained within the same cabinet as a 101 central air conditioner with a rated cooling capacity of not less than 102 sixty-five thousand BTUs per hour; (C) is an electric central furnace, 103 electric boiler, forced-air central furnace, gravity central furnace or low 104 pressure steam or hot water boiler; and (D) has a heat input rate of less 105 than three hundred thousand BTUs per hour for an electric boiler and

low pressure steam or hot water boiler and less than two hundred
twenty-five thousand BTUs per hour for a forced-air central furnace,
gravity central furnace and electric central furnace;

(27) "Furnace air handler" means the section of the furnace that
includes the fan, blower and housing, generally upstream of the burners
and heat exchanger. The furnace air handler may include a filter and a
cooling coil;

(28) "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;

(29) "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, possibly in combination with
metallic vapors;

(30) "Metal halide lamp fixture" means a light fixture designed to beoperated with a metal halide lamp and a ballast for a metal halide lamp;

(31) "Probe start metal halide ballast" means a ballast used to operate
metal halide lamps that does not contain an ignitor and that instead
starts lamps by using a third starting electrode probe in the arc tube;

127 (32) "Single voltage external AC to DC power supply" means a device 128 that (A) is designed to convert line voltage AC input into lower voltage 129 DC output; (B) is able to convert to only one DC output voltage at a time; 130 (C) is sold with, or intended to be used with, a separate end use product that constitutes the primary power load; (D) is contained within a 131 132 separate physical enclosure from the end use product; (E) is connected 133 to the end use product in a removable or hard-wired male and female 134 electrical connection, cable, cord or other wiring; (F) does not have 135 batteries or battery packs, including those that are removable or that 136 physically attach directly to the power supply unit; (G) does not have a

battery chemistry or type selector switch and indicator light or a battery
chemistry or type selector switch and a state of charge meter; and (H)
has a nameplate output power less than or equal to two hundred fifty
watts;

141 (33) "State regulated incandescent reflector lamp" means a lamp that 142 is not colored or designed for rough or vibration service applications, 143 has an inner reflective coating on the outer bulb to direct the light, has 144 an E26 medium screw base, a rated voltage or voltage range that lies at 145 least partially within one hundred fifteen to one hundred thirty volts, 146 and that falls into one of the following categories: (A) A bulged reflector 147 or elliptical reflector or a blown PAR bulb shape and that has a diameter 148 that equals or exceeds two and one-quarter inches, or (B) a reflector, 149 parabolic aluminized reflector, bulged reflector or similar bulb shape 150 and that has a diameter of two and one-quarter to two and three-151 quarters inches. "State regulated incandescent reflector lamp" does not 152 include ER30, BR30, BR40 and ER40 lamps of not more than fifty watts, 153 BR30, BR40 and ER40 lamps of sixty-five watts and R20 lamps of not 154 more than forty-five watts;

(34) "Bottle-type water dispenser" means a water dispenser that usesa bottle or reservoir as the source of potable water;

(35) "Commercial hot food holding cabinet" means a heated, fullyenclosed compartment with one or more solid or [partial glass]
<u>transparent</u> doors that is designed to maintain the temperature of hot
food that has been cooked [in] <u>using</u> a separate appliance. "Commercial
hot food holding cabinet" does not include heated glass merchandizing
cabinets, drawer warmers or cook-and-hold appliances;

(36) "Pool heater" means an appliance designed for heating
nonpotable water contained at atmospheric pressure for swimming
pools, spas, hot tubs and similar applications, including natural gas,
heat pump, oil and electric resistance pool heaters;

167 (37) "Portable electric spa" means a factory-built electric spa or hot 168 tub<sub>*L*</sub> [supplied with equipment for heating and circulating water] <u>which</u> 169 <u>may include any combination of integral controls, water heating or</u>
 170 <u>water circulating equipment;</u>

(38) "Residential pool pump" means a pump used to circulate andfilter pool water to maintain clarity and sanitation;

173 (39) "Walk-in refrigerator" means a space refrigerated to 174 temperatures at or above thirty-two degrees Fahrenheit that has a total 175 chilled storage area of less than three thousand square feet, can be 176 walked into and is designed for the refrigerated storage of food and food 177 products. "Walk-in refrigerator" does not include refrigerated 178 warehouses and products designed and marketed exclusively for 179 medical, scientific or research purposes;

(40) "Walk-in freezer" means a space refrigerated to temperatures
below thirty-two degrees Fahrenheit that has a total chilled storage area
of less than three thousand square feet, can be walked into and is
designed for the frozen storage of food and food products. "Walk-in
freezer" does not include refrigerated warehouses and products
designed and marketed exclusively for medical, scientific or research
purposes;

(41) "Central air conditioner" means a central air conditioning model
that consists of one or more factory-made assemblies, which normally
include an evaporator or cooling coil, compressor and condenser.
Central air conditioning models may provide the function of air cooling,
air cleaning, dehumidifying or humidifying;

(42) "Combination television" means a system in which a television
or television monitor and an additional device or devices, including, but
not limited to, a digital versatile disc player or video cassette recorder,
are combined into a single unit in which the additional devices are
included in the television casing;

197 [(43) "Compact audio player" means an integrated audio system
198 encased in a single housing that includes an amplifier and radio tuner
199 with attached or separable speakers and can reproduce audio from one

or more of the following media: Magnetic tape, compact disc, digital
versatile disc or flash memory. "Compact audio player" does not mean
a product that can be independently powered by internal batteries, has
a powered external satellite antenna or can provide a video output
signal;]

[(44)] (43) "Component television" means a television composed of two or more separate components, such as a separate display device and tuner, marketed and sold as a television under one model or system designation, which may have more than one power cord;

[(45)] (44) "Computer monitor" means an analog or digital device
designed primarily for the display of computer generated signals and
that is not marketed for use as a television;

[(46)] (45) "Digital versatile disc" means a laser-encoded plastic
medium capable of storing a large amount of digital audio, video and
computer data;

[(47)] (46) "Digital versatile disc player" means a commercially available electronic product encased in a single housing that includes an integral power supply and for which the sole purpose is the decoding of digitized video signals;

[(48) "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 the production or recording of digitized audio, video and computer signals on a digital versatile disc. "Digital versatile disc recorder" does not include a model that has an electronic programming guide function;]

[(49)] (47) "Television" means an analog or digital device designed primarily for the display and reception of a terrestrial, satellite, cable, internet protocol television or other broadcast or recorded transmission of analog or digital video and audio signals. "Television" includes combination televisions, television monitors, component televisions and any unit that is marketed to consumers as a television but does not 231 include a computer monitor;

[(50)] (48) "Television monitor" means a television that does not have
an internal tuner/receiver or playback device; [.]

234 (49) "Compressor" means a machine or apparatus that converts

235 <u>different types of energy into the potential energy of gas pressure for</u>

236 <u>displacement and compression of gaseous media to any higher-pressure</u>

237 <u>values above atmospheric pressure and has a pressure ratio at full-load</u>

238 <u>operating pressure greater than 1.3;</u>

239 (50) "Air purifier" or "room air cleaner" means an electric, cord-

240 <u>connected, portable appliance that removes particulate matter from the</u>
 241 air;

(51) "Industrial air purifier" means an indoor air cleaning device
manufactured, advertised, marketed, labeled and used solely for
industrial use that is marketed solely through industrial supply outlets
or businesses and prominently labeled as "Solely for industrial use.
Potential health hazard: emits ozone.";

(52) "Cold temperature fluorescent lamp" means a fluorescent lamp
that is not a compact fluorescent lamp that (A) is specifically designed
to start at -20°F when used with a ballast conforming to the requirements
of ANSI C78.81 and ANSI C78.901; and (B) is expressly designated as a
cold temperature lamp both in markings on the lamp and in marketing
materials, including, but not limited to, catalogs, sales literature and
promotional material;

(53) "Commercial dishwasher" means a machine designed to clean
 and sanitize plates, pots, pans, glasses, cups, bowls, utensils and trays
 by applying sprays of detergent solution, with or without blasting
 media granules, and a sanitizing rinse;

(54) "Commercial steam cooker" or "compartment steamer" means a
 device with one or more food-steaming compartments in which the
 energy in the steam is transferred to the food by direct contact,

261 <u>including, but not limited to, the following models: Countertop models,</u>
 262 <u>wall-mounted models and floor models mounted on a stand, pedestal</u>
 263 <u>or cabinet-style base;</u>

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

267 (56) "Electric vehicle supply equipment" means conductors, 268 including ungrounded, grounded and equipment grounding 269 conductors, electric vehicle connectors, attachment plugs and all other 270 fittings, devices, power outlets or apparatuses installed specifically for 271 the purpose of delivering energy from the premises wiring to the electric 272 vehicle. "Electric vehicle supply equipment" includes charging cords 273 with NEMA 5-15P and NEMA 5-20P attachment plugs. "Electric vehicle 274 supply equipment" does not include conductors, connectors and fittings 275 that are part of a vehicle;

276 (57) "General service lamp" means a lamp that: (A) Has an American 277 National Standards Institute base; (B) is able to operate at a voltage of 278 twelve volts or twenty-four volts, at or between one hundred to one 279 hundred thirty volts, at or between two hundred twenty to two hundred forty volts, or of two hundred seventy-seven volts for integrated lamps, 280 281 or is able to operate at any voltage for nonintegrated lamps; (C) has an 282 initial lumen output of greater than or equal to three hundred ten 283 lumens, or two hundred thirty-two lumens for modified spectrum 284 general service incandescent lamps, and less than or equal to three 285 thousand three hundred lumens; (D) is not a light fixture; (E) is not an LED downlight retrofit kit; and (F) is used in general lighting 286 287 applications. "General service lamps" include, but are not limited to, 288 general service incandescent lamps, compact fluorescent lamps, general 289 service light-emitting diode lamps and general service organic lightemitting diode lamps. "General service lamps" do not include: (i) 290 291 Appliance lamps; (ii) black light lamps; (iii) bug lamps; (iv) colored 292 lamps; (v) G shape lamps with a diameter of five inches or more as 293 defined in American National Standards Institute C79.1-2002; (vi)

294 general service fluorescent lamps; (vii) high-intensity discharge lamps; (viii) infrared lamps; (ix) J, JC, JCD, JCS, JCV, JCX, JD, JS and JT shape 295 lamps that do not have Edison screw bases; (x) lamps that have a wedge 296 297 base or prefocus base; (xi) left-hand thread lamps; (xii) marine lamps; 298 (xiii) marine signal service lamps; (xiv) mine service lamps; (xv) MR 299 shape lamps that have a first number symbol equal to sixteen and a 300 diameter equal to two inches as defined in American National Standards Institute C79.1-2002, operate at twelve volts and have a 301 lumen output greater than or equal to eight hundred; (xvi) other 302 303 fluorescent lamps; (xvii) plant light lamps; (xviii) R20 short lamps; (ixx) reflector lamps that have a first number symbol less than sixteen and a 304 diameter less than two inches as defined in American National 305 Standards Institute C79.1-2002 and that do not have E26/E24, E26d, 306 E26/50x39, E26/53x39, E29/28, E29/53x39, E39, E39d, EP39 or EX39 307 308 bases; (xx) S shape or G shape lamps that have a first number symbol less than or equal to 12.5 and a diameter less than or equal to 1.5625 309 inches as defined in American National Standards Institute C79.1-2002; 310 (xxi) sign service lamps; (xxii) silver bowl lamps; (xxiii) showcase lamps; 311 (xxiv) specialty MR lamps; (xxv) T shape lamps that have a first number 312 313 symbol less than or equal to eight and a diameter less than or equal to 314 one inch as defined in American National Standards Institute C79.1-315 2002, have nominal overall length less than twelve inches and are not 316 compact fluorescent lamps; and (xxvi) traffic signal lamps; (58) "High color rendering index fluorescent lamp" means a 317 318 fluorescent lamp with a color rendering index of eighty-seven or greater 319 that is not a compact fluorescent lamp; 320 (59) "Impact-resistant fluorescent lamp" means a fluorescent lamp 321 that is not a compact fluorescent lamp that (A) has a coating or equivalent technology that is in compliance with NSF/ANSI 51 and is 322 323 designed to contain the glass if the glass envelope of the lamp is broken; and (B) is designated and marketed for the intended application, with 324 325 the designation on the lamp packaging and marketing materials that identify the lamp as being impact-resistant, shatter-resistant, shatter-326 327 proof or shatter-protected;

328	(60) "Faucet" means a lavatory faucet, kitchen faucet, metering faucet,		
329	public lavatory faucet or replacement aerator for a lavatory, public		
330	lavatory or kitchen faucet;		
331	(61) "Public lavatory faucet" means a fitting intended to be installed		
332	in nonresidential bathrooms that are exposed to walk-in traffic;		
333	(62) "Metering faucet" means a fitting that, when turned on, will		
334	gradually shut itself off over a period of several seconds;		
335	(63) "Replacement aerator" means an aerator sold as a replacement,		
336	separate from the faucet to which it is intended to be attached;		
337	(64) "Plumbing fixture" means an exchangeable device that connects		
338	to a plumbing system to deliver and drain away water and waste;		
339	<u>(65) "Urinal" means a plumbing fixture that receives only liquid body</u>		
340	waste and conveys the waste through a trap into a drainage system;		
341	(66) "Water closet" means a plumbing fixture having a water-		
342	containing receptor that receives liquid and solid body waste through		
343	an exposed integral trap into a drainage system;		
344	<u>(67)</u> "Dual-flush effective flush volume" means the average flush		
345	volume of two reduced flushes and one full flush;		
346	(68) "Dual-flush water closet" means a water closet incorporating a		
347	feature that allows the user to flush the water closet with either a		
348	reduced or a full volume of water;		
349	<u>(69) "Trough-type urinal" means a urinal designed for simultaneous</u>		
350	<u>use by two or more persons;</u>		
351	(70) "Residential ventilating fan" means a ceiling, wall-mounted or		
352	remotely mounted in-line fan designed to be used in a bathroom or		
353	utility room, whose purpose is to move air from inside the building to		
354	the outdoors;		
355	(71) "Showerhead" means a device through which water is		

356 357	discharged for a shower bath and includes a hand-held showerhead but does not include a safety shower showerhead;
358 359 360	(72) "Hand-held showerhead" means a showerhead that can be held or fixed in place for the purpose of spraying water onto a bather and that is connected to a flexible hose;
361 362 363	(73) "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;
364 365	(74) "Water cooler" means a freestanding device that consumes energy to cool or heat potable water;
366 367	<u>(75) "Cold only unit water cooler" means a water cooler that dispenses</u> <u>cold water only;</u>
368 369 370	(76) "Hot and cold unit water cooler" means a water cooler that dispenses both hot and cold water and may dispense room-temperature water;
371 372	(77) "Cook and cold unit water cooler" means a water cooler that dispenses both cold and room-temperature water;
373 374 375 376	(78) "Storage-type water cooler" means a water cooler where thermally conditioned water is stored in a tank in the water cooler and is available instantaneously, including, but not limited to, point-of-use, dry storage compartment and bottled water coolers;
377 378	(79) "On demand water cooler" means a water cooler that heats water as it is requested and typically takes a few minutes to deliver.
<ul> <li>379</li> <li>380</li> <li>381</li> <li>382</li> <li>383</li> <li>384</li> </ul>	(b) The provisions of this <u>subsection and subsections (c) to (h)</u> , <u>inclusive, of this</u> section apply to the testing, certification and enforcement of efficiency standards for the following types of new products sold, offered for sale or installed in the state: (1) [Commercial clothes washers; (2) commercial] <u>Commercial</u> refrigerators and freezers; [(3)] (2) illuminated exit signs; [(4)] (3) large packaged air-conditioning

385 equipment; [(5)] (4) low voltage dry-type distribution transformers; [(6)] 386 (5) torchiere lighting fixtures; [(7)] (6) traffic signal modules; [(8)] (7) unit 387 heaters; [(9)] (8) residential furnaces and boilers; [(10)] (9) residential pool pumps; [(11)] (10) metal halide lamp fixtures; [(12)] (11) single 388 voltage external AC to DC power supplies; [(13)] (12) state regulated 389 390 incandescent reflector lamps; [(14)] (13) bottle-type water dispensers; 391 [(15)] (14) commercial hot food holding cabinets; [(16) portable electric 392 spas; (17)] (15) walk-in refrigerators and walk-in freezers; [(18)] (16) pool 393 heaters; [(19) compact audio players; (20)] (17) televisions; [(21) digital 394 versatile disc players; (22) digital versatile disc recorders; and [(23)] (18) 395 any other products as may be designated by the commissioner in 396 accordance with subdivision (3) of subsection (d) of this section.

(c) The provisions of <u>subsections (b) to (h)</u>, <u>inclusive</u>, of this section do not apply to (1) new products manufactured in the state and sold outside the state, (2) new products manufactured outside the state and sold at wholesale inside the state for final retail sale and installation outside the state, (3) products installed in mobile manufactured homes at the time of construction, or (4) products designed expressly for installation and use in recreational vehicles.

404(d) (1) The Commissioner of Energy and Environmental Protection 405 [shall] <u>may</u> adopt regulations, in accordance with the provisions of 406 chapter 54, to implement the provisions of subsections (b) to (h), 407 inclusive, of this section and to establish minimum energy efficiency 408 standards for the types of new products set forth in subsection (b) of this 409 section. [The regulations shall provide for] Upon the effective date of 410 this section, the following minimum energy efficiency standards shall 411 apply:

(A) Commercial clothes washers shall meet the requirements [shown
in Table P-3 of section 1605.3 of the California Code of Regulations, Title
20: Division 2, Chapter 4, Article 4] of federal efficiency standards,
provided such standards are equivalent to or have a higher efficiency
than the standards required by the United States Department of Energy
on January 1, 2018;

(B) Commercial refrigerators and freezers shall meet the August 1,
2004, requirements shown in Table A-6 of said California regulation;

420 (C) Illuminated exit signs shall meet the version 2.0 product
421 specification of the "Energy Star Program Requirements for Exit Signs"
422 developed by the United States Environmental Protection Agency;

(D) Large packaged air-conditioning equipment having not more than seven hundred sixty thousand BTUs per hour of capacity shall meet a minimum energy efficiency ratio of 10.0 for units using both electric heat and air conditioning or units solely using electric air conditioning, and 9.8 for units using both natural gas heat and electric air conditioning;

(E) Large packaged air-conditioning equipment having not less than seven hundred sixty-one thousand BTUs per hour of capacity shall meet a minimum energy efficiency ratio of 9.7 for units using both electric heat and air conditioning or units solely using electric air conditioning, and 9.5 for units using both natural gas heat and electric air conditioning;

(F) Low voltage dry-type distribution transformers shall meet or
exceed the energy efficiency values shown in Table 4-2 of the National
Electrical Manufacturers Association Standard TP-1-2002;

(G) Torchiere lighting fixtures shall not consume more than one
hundred ninety watts and shall not be capable of operating with lamps
that total more than one hundred ninety watts;

(H) Traffic signal modules shall meet the product specification of the
"Energy Star Program Requirements for Traffic Signals" developed by
the United States Environmental Protection Agency that took effect in
February, 2001, except where the department, in consultation with the
Commissioner of Transportation, determines that such specification
would compromise safe signal operation;

(I) Unit heaters shall not have pilot lights and shall have either power

448 venting or an automatic flue damper;

449 (J) On or after January 1, 2009, residential furnaces and boilers 450 purchased by the state shall meet or exceed the following annual fuel 451 utilization efficiency: (i) For gas and propane furnaces, ninety per cent 452 annual fuel utilization efficiency, (ii) for oil furnaces, eighty-three per 453 cent annual fuel utilization efficiency, (iii) for gas and propane hot water 454 boilers, eighty-four per cent annual fuel utilization efficiency, (iv) for oil-455 fired hot water boilers, eighty-four per cent annual fuel utilization 456 efficiency, (v) for gas and propane steam boilers, eighty-two per cent 457 annual fuel utilization efficiency, (vi) for oil-fired steam boilers, eighty-458 two per cent annual fuel utilization efficiency, and (vii) for furnaces with 459 furnace air handlers, an electricity ratio of not more than 2.0, except air 460 handlers for oil furnaces with a capacity of less than ninety-four 461 thousand BTUs per hour shall have an electricity ratio of 2.3 or less;

(K) On or after January 1, 2010, metal halide lamp fixtures designed
to be operated with lamps rated greater than or equal to one hundred
fifty watts but less than or equal to five hundred watts shall not contain
a probe-start metal halide lamp ballast;

466 (L) Single-voltage external AC to DC power supplies manufactured 467 on or after January 1, 2008, shall meet the energy efficiency standards of 468 table U-1 of section 1605.3 of the January 2006 California Code of 469 Regulations, Title 20, Division 2, Chapter 4, Article 4: Appliance 470 Efficiency Regulations. This standard applies to single voltage AC to DC 471 power supplies that are sold individually and to those that are sold as a 472 component of or in conjunction with another product. This standard 473 shall not apply to single-voltage external AC to DC power supplies sold 474 with products subject to certification by the United States Food and 475 Drug Administration. A single-voltage external AC to DC power supply 476 that is made available by a manufacturer directly to a consumer or to a 477 service or repair facility after and separate from the original sale of the 478 product requiring the power supply as a service part or spare part shall 479 not be required to meet the standards in said table U-1 until five years 480 after the effective dates indicated in the table;

(M) On or after January 1, 2009, state regulated incandescent reflector lamps shall be manufactured to meet the minimum average lamp efficacy requirements for federally regulated incandescent reflector lamps contained in 42 USC 6295(i)(1)(A). Each lamp shall indicate the date of manufacture;

(N) On or after January 1, 2009, [bottle-type water dispensers,]
commercial hot food holding cabinets, [portable electric spas,] walk-in
refrigerators and walk-in freezers shall meet the efficiency requirements
of section 1605.3 of the January 2006 California Code of Regulations,
Title 20, Division 2, Chapter 4, Article 4: Appliance Efficiency
Regulations. On or after January 1, 2010, residential pool pumps shall
meet said efficiency requirements;

493 (O) On or after July 19, 2022, residential pool pumps shall meet
494 federal efficiency requirements specified in the dedicated pool pump
495 rules published by the United States Department of Energy on January
496 18, 2017, and effective on May 18, 2017;

497 [(O)] (P) On or after January 1, [2009] 2022, pool heaters shall meet 498 the efficiency requirements [of sections 1605.1 and 1605.3 of the January 499 2006 California Code of Regulations, Title 20, Division 2, Chapter 4, 500 Article 4: Appliance Efficiency Regulations] established in 10 CFR 430 501 by the United States Department of Energy as of April 16, 2013, for gas-502 fired and oil-fired pool heaters and the Air-conditioning, Heating, and 503 Refrigeration Institute Certification Reference 1160 for electric heat 504 pump pool heaters;

505 [(P) By January 1, 2014, compact audio players, digital versatile disc 506 players and digital versatile disc recorders shall meet the requirements 507 shown in Table V-1 of Section 1605.3 of the November 2009 amendments 508 to the California Code of Regulations, Title 20, Division 2, Chapter 4, 509 Article 4, unless the commissioner, in accordance with subparagraph (B) 510 of subdivision (3) of this subsection, determines that such standards are 511 unwarranted and may accept, reject or modify according to 512 subparagraph (A) of subdivision (3) of this subsection;]

513 (Q) On or after January 1, 2014, televisions manufactured on or after July 1, 2011, shall meet the requirements shown in Table V-2 of Section 514 515 1605.3 of the November 2009 amendments to the California Code of Regulations, Title 20, Division 2, Chapter 4, Article 4, unless the 516 517 commissioner [, in accordance with subparagraph (B) of subdivision (3) 518 of this subsection,] determines that such standards are unwarranted and 519 may accept, reject or modify according to [subparagraph (A) of] 520 subdivision (3) of this subsection; and

521 (R) In addition to the requirements of subparagraph (Q) of this 522 subdivision, televisions manufactured on or after January 1, 2014, shall 523 meet the efficiency requirements of Sections 1605.3(v)(3)(A), 524 1605.3(v)(3)(B) and 1605.3(v)(3)(C) of the November 2009 amendments 525 to the California Code of Regulations, Title 20, Division 2, Chapter 4, Article 4, unless the commissioner [, in accordance with subparagraph 526 527 (B) of subdivision (3) of this subsection, determines that such standards 528 are unwarranted and may accept, reject or modify according to [subparagraph (A) of] subdivision (3) of this subsection. 529

530 (2) Such efficiency standards, where in conflict with the State 531 Building Code, shall take precedence over the standards contained in the Building Code. Not later than July 1, 2007, and biennially thereafter, 532 533 the Commissioner of Energy and Environmental Protection [shall] may 534 review and increase the level of such efficiency standards by adopting 535 regulations in accordance with the provisions of chapter 54 upon a determination that increased efficiency standards would serve to 536 537 promote energy conservation in the state and would be cost-effective for 538 consumers who purchase and use such new products, provided no such 539 increased efficiency standards shall become effective within one year 540 following the adoption of any amended regulations providing for such 541 increased efficiency standards.

542 (3) [(A)] The Commissioner of Energy and Environmental Protection 543 [shall] <u>may</u> adopt regulations, in accordance with the provisions of 544 chapter 54, to designate additional products to be subject to the 545 provisions of <u>subsections (b) to (h)</u>, inclusive of this section and to establish efficiency standards for such products upon a determination
that such efficiency standards [(i)] (<u>A</u>) would serve to promote energy
conservation in the state, [(ii)] (<u>B</u>) would be cost-effective for consumers
who purchase and use such new products, and [(iii)] (<u>C</u>) would not
impose an unreasonable burden on Connecticut businesses.

551 [(B) The Commissioner of Energy and Environmental Protection, in 552 consultation with the Multi-State Appliance Standards Collaborative, 553 shall identify additional appliance and equipment efficiency standards. 554 The commissioner shall review all California standards and may review 555 standards from other states in such collaborative. The commissioner 556 shall issue notice of such review in the Connecticut Law Journal, allow 557 for public comment and may hold a public hearing within six months of 558 adoption of an efficiency standard by a cooperative member state 559 regarding a product for which no equivalent Connecticut or federal 560 standard currently exists. The commissioner shall adopt regulations in 561 accordance with the provisions of chapter 54 adopting such efficiency 562 standard unless the commissioner makes a specific finding that such 563 standard does not meet the criteria in subparagraph (A) of this 564 subdivision.]

565 (e) On or after July 1, 2006, except for [commercial clothes washers, 566 for which the date shall be July 1, 2007,] commercial refrigerators and 567 freezers, for which the date shall be July 1, 2008, and large packaged air-568 conditioning equipment, for which the date shall be July 1, 2009, no new 569 product of a type set forth in subsection (b) of this section or designated 570 by the Commissioner of Energy and Environmental Protection may be 571 sold, offered for sale, or installed in the state unless the energy efficiency 572 of the new product meets or exceeds the efficiency standards set forth 573 in such regulations adopted pursuant to subsection (d) of this section.

(f) The Commissioner of Energy and Environmental Protection shall
adopt procedures for testing the energy efficiency of the new products
set forth in subsection (b) of this section or designated by the
commissioner if such procedures are not provided for in the State
Building Code. The commissioner shall use United States Department

579 of Energy approved test methods, or in the absence of such test 580 methods, other appropriate nationally recognized test methods. The 581 manufacturers of such products shall cause samples of such products to 582 be tested in accordance with the test procedures adopted pursuant to 583 this subsection or those specified in the State Building Code.

584 (g) Manufacturers of any new products set forth in [subsection (b)] 585 subsections (b) and (i) of this section for which (1) no efficiency 586 standards exist in California, and (2) the [Commissioner of Energy and 587 Environmental Protection] state of Connecticut adopts efficiency 588 standards, shall certify to the [commissioner] Commissioner of Energy 589 and Environmental Protection that such products are in compliance 590 with the provisions of this section, except that certification is not 591 required for single voltage external AC to DC power supplies and walk-592 in refrigerators and walk-in freezers. All single voltage external AC to 593 DC power supplies shall be labeled as described in the January 2006 594 California Code of Regulations, Title 20, Section 1607(9). The commissioner [shall promulgate] may adopt regulations governing the 595 596 certification of such products. The commissioner shall publish an 597 annual list of any products set forth in [subsection (b)] subsections (b) and (i) of this section on the department's Internet web site that 598 599 designates which such products are certified in California and which 600 such products not certified in California have demonstrated compliance 601 with efficiency standards adopted [by the commissioner pursuant to 602 subparagraph (B) of subdivision (3) of subsection (d) of this section] in 603 the state of Connecticut.

604 (h) The Attorney General may institute proceedings to enforce the 605 provisions of <u>subsections (b) to (n)</u>, <u>inclusive</u>, <u>of</u> this section. Any person 606 who violates any provision of <u>subsections (b) to (n)</u>, <u>inclusive</u>, <u>of</u> this 607 section shall be subject to a civil penalty of not more than two hundred 608 fifty dollars. Each violation of <u>subsections (b) to (n)</u>, <u>inclusive</u>, <u>of</u> this 609 section shall constitute a separate offense, and each day that such 610 violation continues shall constitute a separate offense.

611 (i) Notwithstanding subsection (d) of this section, the provisions of

612	this subsection and subsections (j) to (n), inclusive, of this section apply		
613	to the testing, certification and enforcement of efficiency standards for		
614	the following types of new products sold, offered for sale, lease or rent		
615	or installed in the state: (1) Air purifier; (2) cold temperature fluorescent		
616	lamps; (3) commercial dishwashers; (4) commercial steam cookers; (5)		
617	computers and computer monitors; (6) electrical vehicle supply		
618	equipment; (7) faucets; (8) general service lamps; (9) high color		
619	rendering index fluorescent lamps; (10) impact-resistant fluorescent		
620	lamps; (11) portable electric spas; (12) residential ventilating fans; (13)		
621	<u>showerheads; (14) spray sprinkler bodies; (15) urinals; (16) water closets;</u>		
622	and (17) water coolers.		
623	<u>(j) The provisions of subsections (i) to (n), inclusive, of this section, do</u>		
624	not apply to (1) new products manufactured in the state and sold		
625	outside the state, (2) new products manufactured outside the state and		
626	sold at wholesale inside the state for final retail sale and installation		
627	outside the state, (3) products installed in mobile manufactured homes		
628	at the time of construction, or (4) products designed expressly for		
629	installation and use in recreational vehicles.		
(20)	(1) Natwithstanding schooting (d) of this parties, the following		
630	(k) Notwithstanding subsection (d) of this section, the following		
631	minimum energy efficiency standards are established for the types of		
632	products set forth in subsection (i) of this section:		
633	(1) Air purifiers, except industrial air purifiers, shall meet the		
634	following requirements as measured in accordance with the "Energy		
635	Star Program Requirements Product Specification for Room Air		
636	Cleaners, Version 2.0": (A) Clean air delivery rate (CADR) for smoke		
637	shall be 30 or greater; (B) models with a CADR for smoke less than 100		

638 <u>CADR/Watt for smoke shall be greater than or equal to 1.7; (C) models</u>

- 639 with a CADR for smoke greater than or equal to 100 and less than 150,
- 640 <u>CADR/Watt for smoke shall be greater than or equal to 1.9; (D) models</u>
  641 with a CADR for smoke greater than or equal to 150, CADR/Watt for
- with a CADR for smoke greater than or equal to 150, CADR/Watt for
   smoke shall be greater than or equal to 2.0; (E) for ozone-emitting
- 643 models, measured ozone shall be less than or equal to 50 parts per billion
- 644 (ppb); (F) models with a Wi-Fi network connection enabled by default

when shipped, partial on mode power shall not exceed 2 watts; and (G) 645 646 models without a Wi-Fi network connection enabled by default when shipped, partial on mode power shall not exceed 1 watt; 647 648 (2) Commercial dishwashers included in the scope of the version 2.0 product specification of the "Energy Star Program Requirements 649 Product Specification for Commercial Dishwashers" developed by the 650 651 United States Environmental Protection Agency shall meet the qualification criteria of that specification; 652 653 (3) Commercial steam cookers shall meet the requirements of the version 1.2 product specification of the "Energy Star Program 654 Requirements Product Specification for Commercial Steam Cookers" 655 developed by the United States Environmental Protection Agency; 656 657 (4) Computers and computer monitors shall meet the requirements 658 of subsection (v) of section 1605.3 of the California Code of Regulations, 659 Title 20, Division 2, Chapter 4, Article 4, and compliance with such requirements shall be as measured in accordance with test methods 660 661 prescribed in subsection (v) of section 1604 of said California regulation. 662 Any regulations adopted by the commissioner pursuant to this subsection shall define "computer" and "computer monitor" to have the 663 same meaning as set forth in subsection (v) of section 1602 of the 664 665 California Code of Regulations, Title 20, Division 2, Chapter 4, Article 4, 666 provided the commissioner may amend such regulations so that the definitions of "computer" and "computer monitor" and the minimum 667 efficiency standards for computers and computer monitors conform to 668 subsequently adopted versions of the referenced sections of the 669 California Code of Regulations; 670 671 (5) Electric vehicle supply equipment included in the scope of the version 1.0 "Energy Star Program Requirements Product Specification 672 for Electric Vehicle Supply Equipment" (Rev. Apr-2017), shall meet the 673 674 qualification criteria of that specification; 675 (6) Faucets, except for metering faucets, shall meet the standards in 676 this subparagraph when tested in accordance with the "Uniform Test

677	Method for Measuring the Water Consumption of Faucets and		
678	Showerheads" in Appendix S to Subpart B to 10 CFR 430, Subpart B in		
679	effect on January 3, 2017. Lavatory faucets and replacement aerators		
680	shall not exceed a maximum flow rate of 1.5 gallons per minute at 60		
681	pounds per square inch. Residential kitchen faucets and replacement		
682	aerators shall not exceed a maximum flow rate of 1.8 gallons per minute		
683	at 60 pounds per square inch, with optional temporary flow of 2.2		
684	gallons per minute, provided they default to a maximum flow rate of 1.8		
685	gallons per minute at 60 pounds per square inch after each use. Public		
686	lavatory faucets and replacement aerators shall not exceed a maximum		
687	flow rate of 0.5 gallons per minute at 60 pounds per square inch;		
(00	(7) Compared comprise leaving shall meast on succeed a leaving office on of 45		
688	(7) General service lamps shall meet or exceed a lamp efficacy of 45		
689	lumens per watt, when tested in accordance with the applicable federal		
690	test procedures for general service lamps, prescribed in 10 CFR		
691	<u>430.23(gg) in effect on January 3, 2017;</u>		
692	(8) High color rendering index fluorescent lamps shall meet the		
693	minimum efficacy requirements contained in 10 CFR 430.32(n)(4) in		
694	effect on January 3, 2017, as measured in accordance with the "Uniform		
695	Test Method for Measuring Average Lamp Efficacy (LE), Color		
696	Rendering Index (CRI), and Correlated Color Temperature (CCT) of		
697	Electric Lamps" in Appendix R to 10 CFR 430, Subpart B in effect on		
698	January 3, 2017;		
699	(9) Portable electric spas shall meet the requirements of the		
700	"American National Standard for Portable Electric Spa Energy		
701	Efficiency" ANSI/APSP/ICC-14 2019;		
702	(10) Residential ventilating fans shall meet the qualification criteria of		
703	the version 4.1 product specification of the "Energy Star Program		
704	Requirements Product Specification for Residential Ventilating Fans"		
705	developed by the United States Environmental Protection Agency;		
	<u>acteriopea of the Onica States Entricitational Protection (Figure )</u>		
706	(11) Showerheads shall not exceed a maximum flow rate of 2.0		
707	gallons per minute at 80 pounds per square inch when tested in		
708	accordance with the "Uniform Test Method for Measuring the Water		

709 Consumption of Faucets and Showerheads" in Appendix S to 10 CFR 710 430, Subpart B in effect on January 3, 2017; 711 (12) Spray sprinkler bodies that are not specifically excluded from the 712 scope of the version 1.0 product specification of the "WaterSense 713 Specification for Spray Sprinkler Bodies" developed by the United States Environmental Protection Agency shall include an integral pressure 714 715 regulator and shall meet the water efficiency and performance criteria 716 and other requirements of that specification; 717 (13) Urinals and water closets, other than those designed and 718 marketed exclusively for use at prisons or mental health facilities, shall 719 meet the standards in subparagraphs (A) to (D), inclusive, of this 720 subdivision when tested in accordance with the "Uniform Test Method 721 for Measuring the Water Consumption of Water Closets and Urinals" in 722 Appendix T to 10 CFR 430, Subpart B in effect on January 3, 2017, and 723 water closets shall pass the waste extraction test for water closets in 724 Section 7.10 of the American Society of Mechanical Engineers 725 A112.19.2/CSA B45.1-2018. (A) Wall-mounted urinals, except for 726 trough-type urinals, shall have a maximum flush volume of 0.5 gallons 727 per flush. (B) Floor-mounted urinals, except for trough-type urinals, 728 shall have a maximum flush volume of 0.5 gallons per flush. (C) Water 729 closets, except for dual-flush tank-type water closets, shall have a 730 maximum flush volume of 1.28 gallons per flush. (D) Dual-flush tank-731 type water closets shall have a maximum dual-flush effective flush 732 volume of 1.28 gallons per flush; and 733 (14) Water coolers included in the scope of the version 2.0 product specification of the "Energy Star Program Requirements Product 734 735 Specification for Water Coolers" developed by the United States 736 Environmental Protection Agency shall have on mode with no water 737 draw energy consumption less than or equal the following values as 738 measured in accordance with the test requirements of that program: (A) 739 0.16 kilowatt-hours per day for cold only unit water coolers and cook

- 740 and cold unit water coolers; (B) 0.87 kilowatt-hours per day for storage-
- 741 type hot and cold unit water coolers; and (C) 0.18 kilowatt-hours per

742 day for on demand hot and cold unit water coolers.

743 (l) (1) Not more than one hundred eighty days after the effective date 744 of this section, and as determined to be necessary by the commissioner 745 thereafter, the commissioner, in consultation with the Attorney General, shall determine if the regulation of any general service lamp is subject 746 to federal preemption. Not more than one hundred eighty days after the 747 748 effective date of this section, no general service lamp that is not subject 749 to federal preemption may be sold or offered for sale in the state unless 750 the efficiency of the new product meets or exceeds the efficiency 751 standards set forth in subsection (k) of this section. 752

- (2) Not later than January 1, 2022, no new portable electric spa or
   bottle-type water dispenser may be sold or offered for sale, lease or rent
   in the state unless the efficiency of the new product meets or exceeds
- 755 <u>any efficiency standards set forth in the regulations of state agencies.</u>
- 756 (3) On and after January 1, 2022, no new air purifier, cold temperature 757 fluorescent lamp, commercial dishwasher, commercial fryer, 758 commercial hot-food holding cabinet, commercial steam cooker, 759 computer or computer monitor, electric vehicle supply equipment, faucet, impact-resistant fluorescent lamp, portable electric spa, 760 residential ventilating fan, showerhead, spray sprinkler body, urinal, 761 762 water closet or water cooler may be sold or offered for sale, lease or rent in the state unless the efficiency of the new product meets or exceeds the 763 764 efficiency standards set forth in subsection (k) of this section.

765 (4) On and after January 1, 2023, no new high color rendering index 766 fluorescent lamp may be sold or offered for sale, lease or rent in the state unless the efficiency of the new product meets or exceeds the efficiency 767 standards set forth in subsection (k) of this section, provided, if, on or 768 769 after January 1, 2022, the state of California adopts a standards for such 770 new product, the commissioner may adopt regulations, in accordance 771 with the provisions of chapter 54, to implement the efficiency standards 772 set forth in subsection (k) of this section for such new product before 773 January 1, 2023.

774 (5) One year after the date upon which the sale or offering for sale of 775 certain products becomes subject to the requirements of subdivision (1), (2), (3), (4) or (5) of this subsection, no such products may be installed 776 777 for compensation in the state unless the efficiency of the new product 778 meets or exceeds the efficiency standards provided in subsection (k) of 779 this section. 780 (m) If any energy or water conservation standards issued or approved for publication on or before January 1, 2018, pursuant to the 781 Energy Policy and Conservation Act 10 CFR 430 to 10 CFR 431 by the 782 783 Office of the United States Secretary of Energy are withdrawn, repealed 784 or otherwise voided, the minimum energy or water efficiency level 785 permitted for products previously subject to such energy or water 786 conservation standards shall be such previously applicable federal 787 energy or water conservation standards as such standards existed on January 1, 2018, and no new product may be sold or offered for sale, 788 789 lease or rent in the state unless it meets or exceeds such standards. This 790 subsection shall not apply to any federal energy or water conservation standard set aside by a court upon the petition of a person who will be 791 792 adversely affected, as provided in 42 USC 6306(b). 793 (n) (1) The commissioner may test products set forth in subsection (i) 794 of this section. If any product tested is found not to be in compliance with the minimum efficiency standards established in subsection (k) of 795 796 this section, the commissioner shall (A) charge the manufacturer of such 797 product for the cost of the purchase and testing of the product, and (B) 798 make information available to the Attorney General and the public 799 concerning such product.

800 (2) The commissioner may, after giving prior notice and at reasonable 801 and convenient hours, as determined by the commissioner, periodically 802 inspect or cause inspections to be made of distributors and retailers of 803 new products set forth in subsection (i) of this section to determine 804 compliance with the provisions of this subsection and subsections (i) to 805 (m), inclusive, of this section. The commissioner shall coordinate with 806 the State Building Inspector to conduct or cause to be conducted

- 807 inspections of newly constructed buildings containing new products
- 808 <u>that are also subject to the State Building Code before such buildings are</u>
- 809 <u>occupied.</u>

This act shal sections:	l take effect as follow	vs and shall amend the following
Section 1	July 1, 2021	16a-48

## Statement of Purpose:

To establish and update state appliance and equipment energy and water efficiency standards.

[Proposed deletions are enclosed in brackets. Proposed additions are indicated by underline, except that when the entire text of a bill or resolution or a section of a bill or resolution is new, it is not underlined.]