Model Act for Establishing State Appliance and Equipment
Energy and Water Efficiency Standards

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This model act sets specific, up-to-date efficiency standards for selected residential and commercial products. These energy- and water-efficiency standards are based on various sources including ENERGY STAR® and WaterSense specifications that have achieved high market shares, standards developed and adopted by the California Energy Commission, and standards issued by the U.S. Department of Energy (DOE) in 2016 that have been put on indefinite hold by the new administration. If you have questions regarding this model act, contact Marianne DiMascio at the Appliance Standards Awareness Project at (339) 933-8140 or mdimascio@standardsASAP.org.

An Act Establishing Minimum Energy and Water Efficiency Standards for
Certain Products Sold in the State

1) Section 1. General Purpose.
   a) This Act establishes minimum efficiency standards for certain products sold or installed in the state.

2) Section 2. Findings.
   a) The legislature finds that:
      i) Efficiency standards for certain products sold or installed in the state assure consumers and businesses that such products meet minimum efficiency performance levels, thus reducing energy and water waste and saving consumers and businesses money on utility bills.
      ii) Efficiency standards contribute to the economy of this state by helping to better balance supply and demand for both energy and water, thus reducing pressure that creates higher natural gas, electricity, and water prices. By saving consumers and businesses money on utility bills, efficiency standards help the state and local economy, since utility bill savings can be spent on local goods and services.
      iii) Such efficiency standards save energy and thus reduce pollution and other environmental impacts associated with the production, distribution, and use of electricity, natural gas, and other fuels.
      iv) Such water efficiency standards save water and thus reduce the strain on the water supply. Furthermore, improved water efficiency can reduce or delay the need for water and sewer infrastructure improvements.
      v) Such efficiency standards can make electricity and natural gas systems more reliable by reducing the strain on systems during peak demand periods. Furthermore, improved efficiency can reduce or delay the need for new power plants, power transmission lines, and power distribution system upgrades as well as new and expanded gas pipelines.

3) Section 3. Definitions.
   a) As used in the Act:
      i) “Commissioner” means the [Commissioner of Energy Resources or the head of another appropriate implementing agency].
      ii) The following definitions refer to air compressors:
(1) “Air compressor” means a compressor designed to compress air that has an inlet open to
the atmosphere or other source of air, and is made up of a compression element (bare
compressor), driver(s), mechanical equipment to drive the compressor element, and any
ancillary equipment.

(2) “Compressor” means a machine or apparatus that converts different types of energy into
the potential energy of gas pressure for displacement and compression of gaseous
media to any higher-pressure values above atmospheric pressure and has a pressure
ratio at full-load operating pressure greater than 1.3.

iii) The following definitions refer to air purifiers:

(1) “Air purifier,” also known as “room air cleaner,” means an electric, cord-connected,
portable appliance with the primary function of removing particulate matter from the air
and which can be moved from room to room.

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

iv) “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.

v) “Commercial fryer” means an appliance, including a cooking vessel, in which oil is placed to
such a depth that the cooking food is essentially supported by displacement of the cooking
fluid rather than by the bottom of the vessel. Heat is delivered to the cooking fluid by means
of an immersed electric element of band-wrapped vessel (electric fryers) or by heat transfer
from gas burners through either the walls of the fryer or through tubes passing through the
cooking fluid (gas fryers).

vi) “Commercial hot-food holding cabinet” means a heated, fully enclosed compartment with one
or more solid or transparent doors designed to maintain the temperature of hot food that has
been cooked using a separate appliance. “Commercial hot-food holding cabinet” does not
include heated glass merchandizing cabinets, drawer warmers, or cook-and-hold appliances.

vii) “Commercial steam cooker,” also known as “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. Models may include countertop models, wall-mounted models, and
floor models mounted on a stand, pedestal, or cabinet-style base.

viii) “Compensation” means money or any other valuable thing, regardless of form, received or to
be received by a person for services rendered.

ix) “General service lamp” has the same meaning as set forth in the action published at 82 Fed.
7322, 7333 (January 19, 2017). (Alternatively, this federal definition can be written out in its
entirety. It is provided at the end of this model bill.)

x) “High color rendering index (CRI) fluorescent lamp” means a fluorescent lamp with a color
rendering index of 87 or greater that is not a compact fluorescent lamp.

xi) The following definitions refer to faucets:

(1) “Faucet” means a lavatory faucet, kitchen faucet, metering faucet, public lavatory faucet,
or replacement aerator for a lavatory, public lavatory or kitchen faucet.

(2) “Public lavatory faucet” means a fitting intended to be installed in nonresidential
bathrooms that are exposed to walk-in traffic.

(3) “Metering faucet” means a fitting that, when turned on, will gradually shut itself off over a
period of several seconds.

(4) “Replacement aerator” means an aerator sold as a replacement, separate from the faucet
to which it is intended to be attached.

xii) The following definitions refer to urinals and water closets:

(1) “Plumbing fixture” means an exchangeable device, which connects to a plumbing system
to deliver and drain away water and waste.

(2) “Urinal” means a plumbing fixture that receives only liquid body waste and conveys the
waste through a trap into a drainage system.
(3) “Water closet” means a plumbing fixture having a water-containing receptor that receives liquid and solid body waste through an exposed integral trap into a drainage system.

(4) “Dual-flush effective flush volume” means the average flush volume of two reduced flushes and one full flush.

(5) “Dual-flush water closet” means a water closet incorporating a feature that allows the user to flush the water closet with either a reduced or a full volume of water.

(6) “Trough-type urinal” means a urinal designed for simultaneous use by two or more persons.

xiii) The following definitions refer to portable air conditioners:

(1) “Portable air conditioner” means a portable encased assembly, other than a packaged terminal air conditioner, room air conditioner, or dehumidifier, that delivers cooled, conditioned air to an enclosed space, and is powered by single-phase electric current. It includes a source of refrigeration and may include additional means for air circulation and heating and may be a single-duct or a dual-duct portable air conditioner.

(2) “Single-duct portable air conditioner” means a portable air conditioner that draws all of the condenser inlet air from the conditioned space without the means of a duct and discharges the condenser outlet air outside the conditioned space through a single duct attached to an adjustable window bracket.

(3) “Dual-duct portable air conditioner” means a portable air conditioner that draws some or all of the condenser inlet air from outside the conditioned space through a duct attached to an adjustable window bracket, may draw additional condenser inlet air from the conditioned space, and discharges the condenser outlet air outside the conditioned space by means of a separate duct attached to an adjustable window bracket.

xiv) “Portable electric spa” means a factory-built electric spa or hot tub which may or may not include any combination of integral controls, water heating or water circulating equipment.

xv) “Residential ventilating fan” means a ceiling, wall-mounted, or remotely mounted in-line fan designed to be used in a bathroom or utility room, whose purpose is to move air from inside the building to the outdoors.

xvi) The following definitions refer to showerheads:

(1) “Showerhead” means a device through which water is discharged for a shower bath and includes a hand-held showerhead but does not include a safety shower showerhead.

(2) “Hand-held shower” 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.

xvii) The following definitions refer to spray sprinkler bodies:

(1) “Pressure regulator” means a device that maintains constant operating pressure immediately downstream from the device, given higher pressure upstream.

(2) “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.

xviii) “Uninterruptible power supply” means a battery charger consisting of a combination of convertors, switches and energy storage devices (such as batteries), constituting a power system for maintaining continuity of load power in case of input power failure.

xix) The following definitions refer to water coolers:

(1) “Water cooler” means a freestanding device that consumes energy to cool and/or heat potable water.

(a) “Cold only units” dispense cold water only.

(b) “Hot and cold units” dispense both hot and cold water. Some units also offer room-temperature water.

(c) “Cook and cold units” dispense both cold and room-temperature water.

(2) “Storage-type” means thermally conditioned water is stored in a tank in the water cooler and is available instantaneously. Point-of-use, dry storage compartment, and bottled water coolers are included in this category.

(3) “On demand” means the water cooler heats water as it is requested, which typically takes a few minutes to deliver.

4) Section 4. Scope.
a) The provisions of this Act apply to:
   i) Air compressors;
   ii) Air purifiers;
   iii) Commercial dishwashers;
   iv) Commercial fryers;
   v) Commercial hot-food holding cabinets;
   vi) Commercial steam cookers;
   vii) Computers and computer monitors;
   viii) Faucets;
   ix) General service lamps;
   x) High CRI fluorescent lamps
   xi) Portable air conditioners;
   xii) Portable electric spas;
   xiii) Residential ventilating fans;
   xiv) Showerheads;
   xv) Spray sprinkler bodies;
   xvi) Uninterruptible power supplies;
   xvii) Urinals;
   xviii) Water closets;
   xix) Water coolers; and
   xx) Any other products as may be designated by the Commissioner in accordance with Section 7 or by operation of law under Section 9.

b) The provisions of this Act do not apply to:
   i) New products manufactured in the state and sold outside the state;
   ii) New products manufactured outside the state and sold at wholesale inside the state for final retail sale and installation outside the state;
   iii) Products installed in mobile manufactured homes at the time of construction; or
   iv) Products designed expressly for installation and use in recreational vehicles.

5) Section 5. Standards.
   a) Not later than one year after the date of enactment of this Act, the Commissioner, in consultation with heads of other appropriate agencies, shall adopt regulations, in accordance with the provisions of Chapter number of section in state law dealing with setting regulations], establishing minimum efficiency standards for the types of new products set forth in Section 4.
   b) The regulations shall provide for the following minimum efficiency standards:
      i) Air compressors that meet the twelve criteria listed on page 350 to 351 of the “Energy Conservation Standards for Air Compressors” final rule issued by the U.S. Department of Energy on December 5, 2016 shall meet the requirements in Table 1 on page 352 following the instructions on page 353 and as measured in accordance with Appendix A to Subpart T of Part 431 of Title 10 of the Code of Federal Regulations —“Uniform Test Method for Certain Air Compressors”—as in effect on July 3, 2017.
      ii) Air purifiers, except industrial air purifiers, shall meet the following requirements as measured in accordance with the ENERGY STAR Program Requirements Product Specification for Room Air Cleaners, Version 1.2:
          (1) Clean air delivery rate (CADR) for dust shall be 50 or greater;
          (2) CADR/Watt for dust shall be equal to or greater than 2.0;
          (3) For ozone-emitting models, measured ozone shall be less than or equal to 50 parts per billion (ppb); and,
          (4) Standby power shall not exceed 2 watts.
      iii) Commercial dishwashers included in the scope of the ENERGY STAR Program Requirements Product Specification for Commercial Dishwashers, Version 2.0, shall meet the qualification criteria of that specification.
      iv) Commercial fryers included in the scope of the ENERGY STAR Program Requirements Product Specification for Commercial Fryers, Version 2.0, shall meet the qualification criteria of that specification.

vi) Commercial steam cookers shall meet the requirements of the ENERGY STAR Program Requirements Product Specification for Commercial Steam Cookers, Version 1.2.

vii) Computers and computer monitors shall meet the requirements of § 1605.3(v) of Title 20 of the California Code of Regulations (C.C.R.) and compliance with those requirements shall be as measured in accordance with test methods prescribed in § 1604(v) of those regulations.

1. The rules shall define “computer” and “computer monitor” to have the same meaning as set forth in 20 C.C.R. § 1602(v).

2. The referenced portions of the C.C.R. shall be those adopted on or before the effective date of this Act. However, the commissioner shall have authority to amend the rules so that the definitions of “computer” and “computer monitor” and the minimum efficiency standards for computers and computer monitors conform to subsequently adopted modifications to the referenced sections of the C.C.R.

viii) Faucets, except for metering faucets, shall meet the standards shown in this paragraph when tested in accordance with Appendix S to Subpart B of Part 430 of Title 10 of the Code of Federal Regulations and compliance with those requirements shall be — “Uniform Test Method for Measuring the Water Consumption of Faucets and Showerheads”—as in effect on January 3, 2017.

1. Lavatory faucets and replacement aerators shall not exceed a maximum flow rate of 1.5 gallons per minute (gpm) at 60 pounds per square inch (psi).

2. Residential kitchen faucets and replacement aerators shall not exceed a maximum flow rate of 1.8 gpm at 60 psi, with optional temporary flow of 2.2 gpm, provided they default to a maximum flow rate of 1.8 gpm at 60 psi after each use.

3. Public lavatory faucets and replacement aerators shall not exceed a maximum flow rate of 0.5 gpm at 60 psi.

ix) General service lamps shall meet or exceed a lamp efficacy of 45 lumens per watt, when tested in accordance with the applicable federal test procedures for general service lamps, prescribed in Section 430.23(gg) of Title 10 of the Code of Federal Regulations as in effect on January 3, 2017.

x) High CRI fluorescent lamps shall meet the minimum efficacy requirements contained in Section 430.32(n)(4) of Title 10 of the Code of Federal Regulations as in effect on January 3, 2017, as measured in accordance with Appendix R to Subpart B of Part 430 of Title 10 of the Code of Federal Regulations—“Uniform Test Method for Measuring Average Lamp Efficacy (LE), Color Rendering Index (CRI), and Correlated Color Temperature (CCT) of Electric Lamps”—as in effect on January 3, 2017.

xiii) Portable air conditioners shall have a Combined Energy Efficiency Ratio (CEER), as measured in accordance with Appendix CC to Subpart B of Part 430 of Title 10 of the Code of Federal Regulations—“Uniform Test Method for Measuring the Energy Consumption of Portable Air Conditioners”—as in effect on January 3, 2017, that is greater than or equal to:

\[
\frac{SACC}{1.04 \times \left(\frac{3.7117 \times SACC^{0.6384}}{SACC}\right)}
\]

where SACC is Seasonally Adjusted Cooling Capacity in Btu/h.

xiv) Portable electric spas shall meet the requirements of the “American National Standard for Portable Electric Spa Energy Efficiency” (ANSI/APSP/ICC-14).


xvi) Showerheads shall not exceed a maximum flow rate of 2.0 gpm at 80 psi when tested in accordance with Appendix S to Subpart B of Part 430 of Title 10 of the Code of Federal Regulations as in effect on January 3, 2017.

xvii) Spray sprinkler bodies that are not specifically excluded from the scope of the WaterSense Specification for Spray Sprinkler Bodies, Version 1.0, shall include an integral pressure regulator and shall meet the water efficiency and performance criteria and other requirements of that specification.

xiii) Uninterruptible power supplies that utilize a NEMA 1-15P or 5-15P input plug and have an AC output shall have an average load adjusted efficiency that meets or exceed the values shown on page 193 of the pre-publication final rule “Energy Conservation Program: Energy Conservation Standards for Uninterruptible Power Supplies” issued by the U.S. Department of Energy on December 28, 2016, as measured in accordance with test procedures prescribed in Appendix Y to Subpart B of Part 430 of Title 10 of the Code of Federal Regulations—“Uniform Test Method for Measuring the Energy Consumption of Battery Chargers”—as in effect on January 11, 2017.

xii) Urinals and water closets, other than those designed and marketed exclusively for use at prisons or mental health facilities, shall meet the standards shown in subparagraphs (1) to (4) when tested in accordance with Appendix T to Subpart B of Part 430 of Title 10 of the Code of Federal Regulations—“Uniform Test Method for Measuring the Water Consumption of Water Closets and Urinals”—as in effect on January 3, 2017 and water closets shall pass the waste extraction test for water closets (Section 7.10) of the American Society of Mechanical Engineers (ASME) A112.19.2/CSA B45.1-2013.

6) Section 6. Implementation.

a) On or after January 1, 2021, no new air purifier, commercial dishwasher, commercial fryer, commercial hot-food holding cabinet, commercial steam cooker, computer or computer monitor, faucet, high CRI fluorescent lamp, portable electric spa, residential ventilating fan, showerhead, spray sprinkler body, uninterruptible power supply, urinal, 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 efficiency standards provided in Section 5.

b) No later than six months from the date of enactment of this Act, and as necessary thereafter, the Commissioner, in consultation with the Attorney General, shall determine which general service lamps are subject to federal preemption. On or after January 1, 2020, no general service lamp that is not subject to federal preemption may be sold or offered for sale in the state unless the efficiency of the new product meets or exceeds the efficiency standards provided in Section 5.

c) On or after January 1, 2022, no new air compressor 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 standards provided in Section 5.
d) On or after February 1, 2022, no new portable air conditioner 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 standards provided in Section 5.

e) One year after the date upon which the sale or offering for sale of certain products becomes subject to the requirements of paragraph (a), (b), (c), or (d) of this section, no such products may be installed for compensation in the state unless the efficiency of the new product meets or exceeds the efficiency standards provided in Section 5.

7) Section 7. New and Revised Standards.

The Commissioner may adopt regulations, in accordance with the provisions of Chapter [number of section in state law dealing with setting regulations], to establish increased efficiency standards for the products listed or incorporated in Section 4. The Commissioner may also establish standards for products not specifically listed in Section 4. In considering such new or amended standards, the Commissioner, in consultation with the [heads of other appropriate departments], shall set efficiency standards upon a determination that increased efficiency standards would serve to promote energy or water conservation in the state and would be cost effective for consumers who purchase and use such new products, provided that no new or increased efficiency standards shall become effective within one year following the adoption of any amended regulations establishing such increased efficiency standards.

[Section 8 is an optional section for states interested in protecting against the repeal of federal standards]

8) Section 8. Protection Against Repeal of Federal Standards

a) If any of the energy or water conservation standards issued or approved for publication by the Office of the United States Secretary of Energy as of January 1, 2018, pursuant to the Energy Policy and Conservation Act (Parts 430-431 of Title 10 of the Code of Federal Regulations), are withdrawn, repealed, or otherwise voided, the minimum energy or water efficiency level permitted for products previously subject to federal energy or water conservation standards shall be the previously applicable federal standards, and no such new product may be sold or offered for sale, lease or rent in the state unless it meets or exceeds such standards.

b) This section 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 adversely affected, as provided in Section 6306(b) of Title 42 of the United States Code.


a) The manufacturers of products covered by this Act shall test samples of their products in accordance with the test procedures adopted pursuant to this Act. The Commissioner may adopt updated test methods when new versions of test procedures become available.

b) Manufacturers of new products covered by Section 4 of this Act shall certify to the Commissioner that such products are in compliance with the provisions of this Act. Such certifications shall be based on test results. The Commissioner shall promulgate regulations governing the certification of such products and shall coordinate with the certification programs of other states and federal agencies with similar standards.

c) Manufacturers of new products covered by Section 4 of this Act shall identify each product offered for sale or installation in the state as in compliance with the provisions of this Act by means of a mark, label, or tag on the product and packaging at the time of sale or installation. The Commissioner shall promulgate regulations governing the identification of such products and packaging, which shall be coordinated to the greatest practical extent with the labeling programs of other states and federal agencies with equivalent efficiency standards. The Commissioner shall allow the use of existing marks, labels, or tags, which connote compliance with the efficiency requirements of this Act.

d) The Commissioner may test products covered by Section 4. If products so tested are found not to be in compliance with the minimum efficiency standards established under Section 5, the Commissioner shall: (1) charge the manufacturer of such product for the cost of product purchase
and testing, and (2) make information available to the Attorney General and the public on products found not to be in compliance with the standards.

e) With prior notice and at reasonable and convenient hours, the Commissioner may cause periodic inspections to be made of distributors or retailers of new products covered by Section 4 in order to determine compliance with the provisions of this Act. The Commissioner shall also coordinate with the [head of building code administration] regarding inspections prior to occupancy of newly constructed buildings containing new products that are also covered by the [State Building Code].

f) The Commissioner shall investigate complaints received concerning violations of this Act and shall report the results of such investigations to the Attorney General. The Attorney General may institute proceedings to enforce the provisions of this Act. Any manufacturer, distributor, or retailer, or any person who installs a product covered by this Act for compensation, who violates any provision of this Act, shall be issued a warning by the Commissioner for any first violation and subject to a civil penalty of up to one hundred dollars for each offense. Repeat violations shall be subject to a civil penalty of not more than five hundred dollars for each offense. Each violation shall constitute a separate offense, and each day that such violation continues shall constitute a separate offense. Penalties assessed under this paragraph are in addition to costs assessed under paragraph (d) of this section.

g) The Commissioner may adopt such further regulations as necessary to ensure the proper implementation and enforcement of the provisions of this Act.


a) The provisions of this Act shall be severable, and if the application of any clause, sentence, paragraph, subdivision, section, or part of this Act shall be adjudged by any court of competent jurisdiction to be invalid, such judgment shall not affect, impair, or invalidate the application of any other clause, sentence, paragraph, subdivision, section, or part of this Act.

Alternative method for including general service lamp definition (definition xi in the model bill):

“General service lamp” means a lamp that has an American National Standards Institute (ANSI) base; is able to operate at a voltage of 12 volts or 24 volts, at or between 100 to 130 volts, at or between 220 to 240 volts, or of 277 volts for integrated lamps, or is able to operate at any voltage for non-integrated lamps; has an initial lumen output of greater than or equal to 310 lumens (or 232 lumens for modified spectrum general service incandescent lamps) and less than or equal to 3,300 lumens; is not a light fixture; is not an LED downlight retrofit kit; and is used in general lighting applications. General service lamps include, but are not limited to, general service incandescent lamps, compact fluorescent lamps, general service light-emitting diode lamps, and general service organic light-emitting diode lamps. General service lamps do not include:

(1) Appliance lamps;
(2) Black light lamps;
(3) Bug lamps;
(4) Colored lamps;
(5) G shape lamps with a diameter of 5 inches or more as defined in ANSI C79.1–2002;
(6) General service fluorescent lamps;
(7) High-intensity discharge lamps;
(8) Infrared lamps;
(9) J, JC, JCD, JCS, JCV, JCX, JD, JS, and JT shape lamps that do not have Edison screw bases;
(10) Lamps that have a wedge base or prefocus base;
(11) Left-hand thread lamps;
(12) Marine lamps;
(13) Marine signal service lamps;
(14) Mine service lamps;
(15) MR shape lamps that have a first number symbol equal to 16 (diameter equal to 2 inches) as defined in ANSI C79.1–2002, operate at 12 volts, and have a lumen output greater than or equal to 800;
(16) Other fluorescent lamps;
(17) Plant light lamps;
(18) R20 short lamps;
(19) Reflector lamps that have a first number symbol less than 16 (diameter less than 2 inches) as defined in ANSI C79.1–2002 and that do not have E26/E24, E26d, E26/50x39, E26/53x39, E29/28, E29/53x39, E39, E39d, EP39, or EX39 bases;
(20) S shape or G shape lamps that have a first number symbol less than or equal to 12.5 (diameter less than or equal to 1.5625 inches) as defined in ANSI C79.1–2002;
(21) Sign service lamps;
(22) Silver bowl lamps;
(23) Showcase lamps;
(24) Specialty MR lamps;
(25) T shape lamps that have a first number symbol less than or equal to 8 (diameter less than or equal to 1 inch) as defined in ANSI C79.1–2002, nominal overall length less than 12 inches, and that are not compact fluorescent lamps (as defined in this section); and
(26) Traffic signal lamps.