
A BILL FOR AN ACT

RELATING TO EFFICIENCY STANDARDS.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF HAWAII:

1 SECTION 1. The legislature finds that the high cost of
2 living in Hawaii adds to the importance of adopting policies
3 that promote and encourage energy efficiency, which can provide
4 relief for families and businesses faced with high utility
5 bills. In 2019, the legislature took the notable step of
6 establishing minimum energy and water efficiency standards for
7 certain products sold, leased, or rented in the State. These
8 standards are estimated to result in \$169,700,000 in cumulative
9 utility bill savings for Hawaii over the next fifteen years.

10 The legislature further finds that water conservation is
11 growing in significance for a variety of reasons, including
12 increasing incidence of drought conditions and the fuel spills
13 at Red Hill that have led to the closure of the Halawa shaft,
14 which previously provided twenty per cent of the water supply
15 for urban Honolulu. Water efficiency and energy efficiency are
16 closely linked, because pumping water requires energy, and water
17 conservation leads to energy conservation.



1 The legislature also finds that expanding the list of
2 products requiring minimum efficiency standards can help Hawaii
3 save millions of dollars on utility bills annually and can offer
4 even more benefits for Hawaii residents, businesses, the
5 environment, and the economy as a whole. Adopting additional
6 minimum efficiency standards, among other benefits, could:

- 7 (1) Provide a boost to the local economy as a result of
8 consumers and businesses spending their financial
9 savings on other goods and services in the State;
- 10 (2) Protect consumers from manufacturers who would
11 otherwise unload less-efficient appliances that the
12 manufacturers could not sell in other states with
13 heightened efficiency standards;
- 14 (3) Ensure that Hawaii residents do not miss out on
15 potential savings while awaiting uncertain progress
16 regarding standards to be adopted at the federal
17 level;
- 18 (4) Conserve and protect the State's precious and
19 vulnerable water resources, the importance of which
20 has recently been underscored by the Red Hill water
21 crisis;



- 1 (5) Lower electricity bills for residents and businesses
2 by millions of dollars annually; and
- 3 (6) Reduce air pollutants and greenhouse gas emissions,
4 which could result in public health benefits and help
5 the State meet its clean energy and climate change
6 mitigation targets.

7 Numerous states, including California, Colorado,
8 Connecticut, Maine, Maryland, Massachusetts, Nevada, New Jersey,
9 Oregon, Rhode Island, Vermont, and Washington, have adopted
10 robust state energy and water efficiency standards to take
11 advantage of these benefits. The legislature believes that
12 these states can serve as important sources of information for
13 the enforcement and implementation of new or amended energy and
14 water efficiency standards in Hawaii.

15 Furthermore, the legislature finds that most of the
16 products encompassed by this Act are equal in cost to
17 noncompliant products or have a short payback period ranging
18 from zero to seven months.

19 Accordingly, the purpose of this Act is to:

- 20 (1) Authorize the chief energy officer of the Hawaii state
21 energy office, instead of the director of business,



1 economic development, and tourism, to adopt rules to
2 enforce minimum efficiency standards for certain
3 products and adopt or amend minimum efficiency
4 standards in certain situations; and

5 (2) Regulate the minimum efficiency standards for air
6 purifiers, electric vehicle supply equipment, portable
7 electric spas, residential ventilating fans, toilets,
8 urinals, and water coolers.

9 SECTION 2. Section 196-81, Hawaii Revised Statutes, is
10 amended as follows:

11 1. By adding eleven new definitions to be appropriately
12 inserted and to read:

13 "Air purifier" or "room air cleaner" means an electric,
14 cord-connected, portable appliance whose primary function is to
15 remove particulate matter from the air and that can be moved
16 from room to room.

17 "Chief energy officer" means the chief energy officer of
18 the Hawaii state energy office.

19 "Electric vehicle supply equipment" means the conductors,
20 including the ungrounded, grounded, and equipment grounding
21 conductors; electric vehicle connectors; attachment plugs; and



1 all other fittings, devices, power outlets, or apparatuses
2 installed specifically for the purpose of delivering energy from
3 the premises wiring to the electric vehicle. "Electric vehicle
4 supply equipment" does not include conductors, connectors, and
5 fittings that are part of a vehicle.

6 "Industrial air purifier" means an indoor air cleaning
7 device manufactured, advertised, marketed, labeled, and used
8 solely for industrial use that is marketed solely through
9 industrial supply outlets or businesses and prominently labeled
10 as "Solely for industrial use. Potential health hazard: emits
11 ozone."

12 "Plumbing fixture" means an exchangeable device that
13 connects to a plumbing system to deliver and drain away water
14 and waste.

15 "Portable electric spa" means a factory-built electric spa
16 or hot tub, which may include any combination of integral
17 controls, water heating, or water circulating equipment.

18 "Residential ventilating fan" means a ceiling or wall-
19 mounted fan, or remotely mounted in-line fan, designed to be
20 used in a bathroom or utility room for the purpose of moving air
21 from inside the building to the outdoors.



1 "Toilet" or "water closet" means a plumbing fixture that
2 includes a water-containing receptor that is designed to receive
3 liquid and solid human waste through an exposed integral trap
4 into a drainage system. "Toilet" or "water closet" includes but
5 is not limited to a dual-flush toilet.

6 "Trough-type urinal" means a urinal designed for
7 simultaneous use by two or more persons.

8 "Urinal" means a plumbing fixture that is designed to
9 receive only liquid body waste and conveys the waste through a
10 trap into a drainage system. "Urinal" includes but is not
11 limited to a trough-type urinal.

12 "Water cooler" means a freestanding device that consumes
13 energy in order to dispense cold water, room-temperature water,
14 hot water, or any combination thereof. "Water cooler"
15 includes but is not limited to a storage-type water cooler and
16 an on-demand water cooler."

17 2. By amending the definition of "showerhead" to read:

18 "Showerhead" means a device through which water is
19 discharged for a shower or bath[~~—Showerhead~~] and includes
20 handheld showerheads and any other showerhead[~~7—including a~~
21 handheld showerhead], except a safety showerhead."



1 3. By deleting the definitions of "department" and
2 "director".

3 ~~["Department" means the department of business, economic~~
4 ~~development, and tourism.~~

5 ~~"Director" means the director of business, economic~~
6 ~~development, and tourism."]~~

7 SECTION 3. Section 196-83, Hawaii Revised Statutes, is
8 amended to read as follows:

9 "~~[+]§196-83[+]~~ **Rules.** The ~~[director]~~ chief energy officer
10 may adopt rules pursuant to chapter 91 to ~~[enforce]~~:

11 (1) Enforce the minimum efficiency standards ~~[for the~~
12 ~~types of new products]~~ set forth in section ~~[196-84.]~~
13 196-85; and

14 (2) Adopt or amend efficiency standards for any products
15 as the chief energy officer deems appropriate,
16 including but not limited to those products listed or
17 incorporated in section 196-84(a); provided that the
18 chief energy officer shall set efficiency standards
19 upon a determination that new or increased efficiency
20 standards would serve to promote energy or water
21 conservation in the State and would be cost-effective



1 for consumers who newly purchase and use those
2 products; provided further that no new or increased
3 efficiency standards shall become effective within one
4 year following the adoption of any amended regulations
5 establishing the increased efficiency standards."

6 SECTION 4. Section 196-84, Hawaii Revised Statutes, is
7 amended by amending subsection (a) to read as follows:

8 "(a) ~~[Appliance]~~ Minimum efficiency standards are
9 established under this part for the following ~~[appliances,]~~
10 products, if standards for these ~~[appliances]~~ products are not
11 preempted by federal law:

12 (1) Air purifiers;

13 ~~[-1-]~~ (2) Computers and computer monitors;

14 (3) Electric vehicle supply equipment;

15 ~~[-2-]~~ (4) Faucets;

16 ~~[-3-]~~ (5) High color rendering index fluorescent lamps;

17 (6) Portable electric spas;

18 (7) Residential ventilating fans;

19 ~~[-4-]~~ (8) Showerheads; [and

20 ~~[-5-]~~ (9) Spray sprinkler bodies[-];

21 (10) Toilets;



- 1 (11) Urinals; and
- 2 (12) Water coolers."

3 SECTION 5. Section 196-85, Hawaii Revised Statutes, is
 4 amended to read as follows:

5 "[~~f~~] §196-85 [~~]~~—~~Appliance~~ Minimum efficiency standards.

6 [~~a~~] The following minimum efficiency standards shall apply to
 7 products listed or incorporated in section 196-84:

8 (1) Except for industrial air purifiers, air purifiers
 9 shall meet the certification criteria of the ENERGY
 10 STAR Product Specification for Room Air Cleaners,
 11 Version 2.0;

12 [~~1~~] (2) Computers and computer monitors shall meet the
 13 requirements set forth in California Code of
 14 Regulations, Title 20, Section 1605.3, as amended;

15 (3) Electric vehicle supply equipment included in the
 16 scope of the ENERGY STAR Program Requirements Product
 17 Specification for Electric Vehicle Supply Equipment,
 18 Version 1.0, shall meet the certification criteria of
 19 that specification;



- 1 ~~[(2)]~~ (4) Faucets shall meet the minimum efficiency
2 standards set forth in California Code of Regulations,
3 Title 20, Section 1605.1, as amended;
- 4 ~~[(3)]~~ (5) High color rendering index fluorescent lamps
5 shall meet the minimum efficacy requirements contained
6 in ~~[Section]~~ title 10 Code of Federal Regulations
7 section 430.32(n) (4) ~~[of Title 10 of the Code of~~
8 ~~Federal Regulations]~~, as in effect on January 3, 2017,
9 as measured in accordance with ~~[Appendix]~~ title 10
10 Code of Federal Regulations part 430, appendix R to
11 ~~[Subpart]~~ subpart B ~~[of Part 430 of Title 10 of the~~
12 ~~Code of Federal Regulations]~~—"Uniform Test Method for
13 Measuring Average Lamp Efficacy (LE), Color Rendering
14 Index (CRI), and Correlated Color Temperature (CCT) of
15 Electric Lamps"—as amended;
- 16 (6) Portable electric spas shall meet the requirements of
17 the American National Standard for Portable Electric
18 Spa Energy Efficiency (ANSI/APSP/ICC 14-2019);
- 19 (7) In-line residential ventilating fans shall have a fan
20 motor efficacy of no less than 2.8 cubic feet per
21 minute per watt. All other residential ventilating



1 fans shall have a fan motor efficacy of no less than
2 1.4 cubic feet per minute per watt for airflows less
3 than ninety cubic feet per minute and no less than 2.8
4 cubic feet per minute per watt for other airflows when
5 tested in accordance with Home Ventilation Institute
6 Publication 916 "HVI Airflow Test Procedure";

7 ~~[(4)]~~ (8) Showerheads shall meet the minimum efficiency
8 standards set forth in California Code of Regulations,
9 Title 20, Section 1605.1, as amended; ~~[and~~

10 ~~+(5)]~~ (9) Spray sprinkler bodies that are not specifically
11 excluded from the scope of the Environmental
12 Protection Agency's WaterSense Specification for Spray
13 Sprinkler Bodies, Version 1.0, shall include an
14 integral pressure regulator and shall meet the water
15 efficiency and performance criteria and other
16 requirements of that specification, as amended~~[-]~~;

17 (10) Toilets, water closets, and urinals, other than those
18 designed and marketed exclusively for use at prisons
19 or mental health facilities, shall meet the standards
20 shown in subparagraphs (A) to (D) when tested in
21 accordance with title 10 Code of Federal Regulations



1 Part 430, appendix T to subpart B -- "Uniform Test
2 Method for Measuring the Water Consumption of Water
3 Closets and Urinals" -- and toilets shall pass the
4 waste extraction test for water closets (Section 7.9)
5 of the American Society of Mechanical Engineers
6 A112.19.2/CSA B45.1-2018:

7 (A) Wall-mounted urinals, except for trough-type
8 urinals and urinals designed and marketed
9 exclusively for use in prisons and mental health
10 care facilities, shall have a maximum flush
11 volume of 0.5 gallons per flush;

12 (B) Floor-mounted urinals, except for trough-type
13 urinals and urinals designed and marketed
14 exclusively for use in prisons and mental health
15 care facilities, shall have a maximum flush
16 volume of 0.5 gallons per flush;

17 (C) Toilets, except for dual-flush tank-type toilets
18 and toilets designed and marketed exclusively for
19 use in prisons and mental health care facilities,
20 shall have a maximum flush volume of 1.28 gallons
21 per flush; and



1 (D) Dual-flush tank-type toilets shall have a maximum
2 dual-flush effective flush volume of 1.28 gallons
3 per flush. As used in this subparagraph, "dual-
4 flush effective flush volume" means the average
5 flush volume of two reduced flushes and one full
6 flush; and

7 (11) Water coolers included in the scope of the ENERGY STAR
8 Program Requirements Product Specification for Water
9 Coolers, Version 3.0, shall have on mode with no water
10 draw energy consumption less than or equal to the
11 following values as measured in accordance with the
12 test requirements of that program:

13 (A) 0.16 kilowatt-hours per day for cold-only units
14 and cook and cold units. As used in this
15 subparagraph, "cold-only units" means water
16 cooler units that dispense cold water only;

17 (B) 0.87 kilowatt-hours per day for storage-type hot
18 and cold units. As used in this subparagraph:
19 "Hot and cold units" means water coolers
20 that dispense hot and cold water.



1 "Storage-type" means water cooler units in
2 which thermally conditioned water is stored in a
3 tank in the water cooler and is available
4 instantaneously, including point-of-use, dry
5 storage compartment, and bottled water coolers;
6 and

7 (C) 0.18 kilowatt-hours per day for on-demand hot and
8 cold units. As used in this subparagraph:

9 "Hot and cold units" means water coolers
10 that dispense both hot and cold water.

11 "On-demand" means a water cooler unit in
12 which water is heated as it is requested, which
13 typically takes a few minutes to deliver.

14 ~~[(b) When adopting standards for appliances pursuant to~~
15 ~~section 196-84(a), the director shall set appliance efficiency~~
16 ~~standards upon a determination that increased efficiency~~
17 ~~standards would serve to promote energy or water conservation in~~
18 ~~the State and would be cost effective for consumers who purchase~~
19 ~~and use such new products.] "~~

20 SECTION 6. Section 196-86, Hawaii Revised Statutes, is
21 amended to read as follows:



1 " ~~[f]~~ §196-86 ~~[f]~~ Implementation. (a) On or after
2 January 1, 2021, no new computer or computer monitor, faucet,
3 high color rendering index fluorescent lamp, showerhead, or
4 spray sprinkler body may be sold or offered for sale, lease, or
5 rent in the State unless the efficiency of the new product meets
6 or exceeds the efficiency standards provided in section 196-85.

7 (b) On or after January 1, 2025, no new air purifier,
8 electric vehicle supply equipment, portable electric spa,
9 residential ventilating fan, toilet, urinal, or water cooler
10 that is manufactured on or after January 1, 2025, may be sold or
11 offered for sale, lease, or rent in the State unless the
12 efficiency of the new product meets or exceeds the efficiency
13 standards provided in section 196-85.

14 ~~[b]~~ (c) One year after the date upon which the sale or
15 offering for sale of certain products becomes subject to the
16 requirements of ~~[subsection]~~ subsections (a) ~~[, no such]~~ and (b),
17 these products ~~[may]~~ shall not be installed for compensation in
18 the State unless the efficiency of the new product meets or
19 exceeds the efficiency standards provided in section 196-85."

20 SECTION 7. Statutory material to be repealed is bracketed
21 and stricken. New statutory material is underscored.



1 SECTION 8. This Act shall take effect on July 1, 2050.



Report Title:

Minimum Efficiency Standards; Appliances; Chief Energy Officer;
Hawaii State Energy Office

Description:

Allows the Chief Energy Officer of the Hawaii State Energy Office to enforce minimum efficiency standards and adopt or amend efficiency standards. Sets minimum efficiency standards for air purifiers, electric vehicle supply equipment, portable electric spas, residential ventilating fans, toilets, urinals, and water coolers. Effective 7/1/2050. (SD2)

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