
A BILL FOR AN ACT

RELATING TO LIGHTING.

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

1 SECTION 1. The legislature finds that increased energy
2 efficiency and use of renewable energy resources increases
3 Hawaii's energy self-sufficiency and achieves broad societal
4 benefits, including increased energy security, resistance to
5 increases in oil prices, environmental sustainability, economic
6 development, and job creation.

7 Over the years, the legislature has worked steadily to
8 encourage the deployment of renewable energy resources and
9 energy-efficiency initiatives. This includes:

- 10 (1) Establishing a net energy metering program,
11 interconnection standards, and renewable energy tax
12 credits;
- 13 (2) Establishing greenhouse gas and energy consumption
14 reduction goals for state facilities and requiring the
15 use of energy-efficient products in state facilities;
16 and



1 (3) Providing incentives for the deployment of solar
2 energy devices.

3 To shape Hawaii's energy future and achieve the goal of
4 energy self-sufficiency for the State of Hawaii, efforts must
5 continue on all fronts, especially by striving to integrate new
6 and evolving technologies in lighting.

7 The goal of the United States Department of Energy's
8 building technologies lighting research and development program
9 is to develop and demonstrate energy-efficient, high-quality,
10 long-lasting lighting technologies by 2025 that have the
11 technical capability of illuminating buildings using fifty per
12 cent less electricity compared to technologies in 2005.

13 Further, the legislature finds that many existing lighting
14 choices contain toxic materials. Most fluorescent lighting
15 products contain mercury. Most incandescent lighting products
16 contain lead. Although hazardous materials in waste lighting
17 products can be managed through recycling, at present these
18 programs are non-existent within the State. However,
19 fluorescent lighting products delivering the same level of light
20 at the same level of efficiency can have varying levels of
21 mercury. Therefore, a purchasing policy favoring low mercury
22 fluorescent lamps should be promoted.



- 1 The purpose of this Act is to:
- 2 (1) Phase out and ban the use of energy-inefficient
- 3 lighting, especially those products with lead and high
- 4 mercury content;
- 5 (2) Establish a state lighting efficiency standard for
- 6 general purpose lights;
- 7 (3) Require the use of ENERGY STAR labeled lamps in agency
- 8 buildings and facilities; and
- 9 (4) Direct the department of health to develop a statewide
- 10 recycling program for recycling mercury-containing
- 11 compact fluorescent bulbs.

12 **PART I**

13 SECTION 2. Chapter 196, Hawaii Revised Statutes, is

14 amended by adding a new section to be appropriately designated

15 and to read as follows:

16 **"§196- Lighting efficiency standards. (a) Between**

17 January 1, 2012, and December 31, 2015, inclusive, no general

18 purpose light, as defined in section 342J-2, may be sold in this

19 State unless it produces at least thirty lumens per watt of

20 electricity consumed.



1 (b) On and after January 1, 2016, no general purpose light
2 may be sold in this State unless it produces at least fifty
3 lumens per watt of electricity consumed.

4 (c) Within ninety days before January 1, 2012, the
5 department of business, economic development, and tourism shall
6 notify in writing, all retail sellers and distributors of
7 general purpose lights doing business in this State, of the
8 requirements of this section.

9 (d) Any violation of subsection (a) or (b) shall be a
10 misdemeanor; provided a fine of not less than \$50 nor more than
11 \$500 shall be imposed, and all fines shall be imposed
12 consecutively. Each general purpose light sold in violation of
13 this section shall constitute a separate offense.

14 (e) In adopting rules to implement this section, the
15 department of business, economic development, and tourism shall
16 consult with the department of health and attempt to minimize
17 the overall cost to consumers of general purpose lighting,
18 considering the needs of consumers relating to lighting,
19 technological feasibility, and anticipated product availability
20 and performance.

21 (f) The department of business, economic development, and
22 tourism may recommend programs to encourage the sale in this



1 State of general purpose lights that meet or exceed the
2 standards set forth in subsections (a) and (b)."

3 **PART II**

4 SECTION 3. Chapter 342J, Hawaii Revised Statutes, is
5 amended by adding a new part to be appropriately designated and
6 to read as follows:

7 **"PART . HAZARDOUS SUBSTANCE REDUCTION**

8 **§342J- Lighting; hazardous substance standards. (a)**

9 Beginning January 1, 2010, a person shall not sell or offer for
10 sale in this State, general purpose lights containing levels of
11 hazardous substances that would be prohibited from being sold or
12 offered for sale in the European Union under the RoHS Directive.

13 (b) A manufacturer shall prepare and at the request of the
14 department, submit within twenty-eight days of the date of the
15 request, technical documentation or other information showing
16 that the manufacturer's general purpose lights sold or offered
17 for sale in this State comply with the requirements of the RoHS
18 Directive.

19 (c) A person, firm, company, association, corporation, or
20 other organization that violates this section or any rule
21 adopted pursuant to this section shall be subject to a fine of
22 up to \$1,000 for each violation, up to a maximum of \$20,000."



1 SECTION 4. Section 342J-2, Hawaii Revised Statutes, is
2 amended by adding two new definitions to be appropriately
3 inserted and to read as follows:

4 "General purpose lights" means lamps, bulbs, tubes, or
5 other electric devices that provide functional illumination for
6 indoor residential, indoor commercial, and outdoor use. General
7 purpose lights do not include:

8 (1) Specialty lighting, including: an appliance lamp,
9 black light lamp, bug lamp, colored lamp, infrared
10 light lamp, reflector lamp, rough service lamp,
11 shatter resistant lamp, sign service lamp, silver bowl
12 lamp, showcase lamp, three-way lamp, traffic signal
13 lamp, and vibration service or vibration resistant
14 lamp;

15 (2) Lights needed to provide special-needs lighting for
16 individuals with exceptional needs; and

17 (3) Lights for emergency purposes or health or safety
18 needs.

19 "RoHS Directive" means the directive on the restriction of
20 the use of certain hazardous substances in electrical and
21 electronic equipment which was adopted by the European Union and
22 came into effect on July 1, 2006, and which bans the placing on



1 the European Union market of new electrical and electronic
2 equipment containing more than agreed levels of lead, cadmium,
3 mercury, hexavalent chromium, polybrominated biphenyl and
4 polybrominated diphenyl ether flame retardants."

5 **PART III**

6 SECTION 5. Section 196-9, Hawaii Revised Statutes, is
7 amended by amending subsection (b) to read as follows:

8 "(b) With regard to buildings and facilities, each agency
9 shall:

- 10 (1) Design and construct buildings meeting the Leadership
11 in Energy and Environmental Design silver or two green
12 globes rating system or another comparable
13 state-approved, nationally recognized, and
14 consensus-based guideline, standard, or system, except
15 when the guideline, standard, or system interferes or
16 conflicts with the use of the building or facility as
17 an emergency shelter;
- 18 (2) Incorporate energy-efficiency measures to prevent heat
19 gain in residential facilities up to three stories in
20 height to provide R-19 or equivalent on roofs, R-11 or
21 equivalent in walls, and high-performance windows to
22 minimize heat gain and, if air conditioned, minimize



1 cool air loss. R-value is the constant time rate
2 resistance to heat flow through a unit area of a body
3 induced by a unit temperature difference between the
4 surfaces. R-values measure the thermal resistance of
5 building envelope components such as roof and walls.
6 The higher the R-value, the greater the resistance to
7 heat flow. Where possible, buildings shall be
8 oriented to maximize natural ventilation and day-
9 lighting without heat gain and to optimize solar for
10 water heating. This provision shall apply to new
11 residential facilities built using any portion of
12 state funds or located on state lands;

- 13 (3) Install solar water heating systems where it is cost-
14 effective, based on a comparative analysis to
15 determine the cost-benefit of using a conventional
16 water heating system or a solar water heating system.
17 The analysis shall be based on the projected life
18 cycle costs to purchase and operate the water heating
19 system. If the life cycle analysis is positive, the
20 facility shall incorporate solar water heating. If
21 water heating entirely by solar is not cost-effective,
22 the analysis shall evaluate the life cycle, cost-



1 benefit of solar water heating for preheating water.
2 If a multi-story building is centrally air
3 conditioned, heat recovery shall be employed as the
4 primary water heating system. Single family
5 residential clients of the department of Hawaiian home
6 lands and any agency or program that can take
7 advantage of utility rebates shall be exempted from
8 the requirements of this paragraph so they may
9 continue to qualify for utility rebates for solar
10 water heating;

11 (4) Implement water and energy efficiency practices in
12 operations to reduce waste and increase
13 conservation[+], including the use of ENERGY STAR
14 labeled lamps to provide the most efficient lighting;

15 (5) Incorporate principles of waste minimization and
16 pollution prevention, such as reducing, revising, and
17 recycling as a standard operating practice in
18 programs, including programs for waste management in
19 construction and demolition projects and office paper
20 and packaging recycling programs;

21 (6) Use life cycle cost-benefit analysis to purchase
22 energy efficient equipment such as ENERGY STAR



1 products and use utility rebates where available to
2 reduce purchase and installation costs; and
3 (7) Procure environmentally preferable products, including
4 recycled and recycled-content, bio-based, and other
5 resource-efficient products and materials."

6 **PART IV**

7 SECTION 6. The director of health shall develop a
8 statewide program for recycling mercury-containing compact
9 fluorescent bulbs before January 1, 2011, and report to the
10 legislature twenty days before the commencement of the 2011
11 regular session on the funds and proposed legislation that may
12 be necessary to implement such a recycling program.

13 **PART V**

14 SECTION 7. If any provision of this Act, or the
15 application thereof to any person or circumstance is held
16 invalid, the invalidity does not affect other provisions or
17 applications of the Act, which can be given effect without the
18 invalid provision or application, and to this end the provisions
19 of this Act are severable.

20 SECTION 8. Statutory material to be repealed is bracketed
21 and stricken. New statutory material is underscored.

22 SECTION 9. This Act shall take effect upon its approval.



Report Title:

Lighting; Energy Efficiency; Hazardous Substance Reduction

Description:

Phases-out and bans the use of lighting products with lead and high mercury content; establishes a statewide lighting efficiency standard for general purpose lights; allows the use of ENERGY STAR labeled lamps in agency buildings and facilities; and directs the department of health to develop a statewide recycling program for recycling mercury-containing compact fluorescent bulbs. (SD1)

