
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
- 17 (3) Providing incentives for the deployment of solar
18 energy devices.



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

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

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

21 The purpose of this Act is to:



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

11 **PART I**

12 SECTION 2. Chapter 196, Hawaii Revised Statutes, is
13 amended by adding a new section to be appropriately designated
14 and to read as follows:

15 "§196- Lighting efficiency standards. (a) Between
16 January 1, 2012, and December 31, 2015, inclusive, no general
17 purpose light, as defined in section 342J-2, may be sold in this
18 State unless it produces at least thirty lumens per watt of
19 electricity consumed.

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



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

6 (d) Any violation of subsection (a) or (b) shall be a
7 misdemeanor; provided a fine of not less than \$50 nor more than
8 \$500 shall be imposed. Each general purpose light sold in
9 violation of this section shall constitute a separate offense.

10 (e) The fines collected pursuant to this section shall be
11 deposited into the environmental management special fund
12 established in section 342G-63.

13 (f) The department of health shall adopt rules pursuant to
14 chapter 91 in consultation with the department of business,
15 economic development, and tourism to implement this section.
16 The rules shall attempt to minimize the overall cost to
17 consumers of general purpose lighting, considering the needs of
18 consumers relating to lighting, technological feasibility, and
19 anticipated product availability and performance.

20 (g) The department of health, in consultation with the
21 department of business, economic development, and tourism shall
22 develop a consumer education program to encourage the use in



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

3 SECTION 3. Section 196-9, Hawaii Revised Statutes, is
4 amended by amending subsection (b) to read as follows:

5 "(b) With regard to buildings and facilities, each agency
6 shall:

7 (1) Design and construct buildings meeting the Leadership
8 in Energy and Environmental Design silver or two green
9 globes rating system or another comparable
10 state-approved, nationally recognized, and
11 consensus-based guideline, standard, or system, except
12 when the guideline, standard, or system interferes or
13 conflicts with the use of the building or facility as
14 an emergency shelter;

15 (2) Incorporate energy-efficiency measures to prevent heat
16 gain in residential facilities up to three stories in
17 height to provide R-19 or equivalent on roofs, R-11 or
18 equivalent in walls, and high-performance windows to
19 minimize heat gain and, if air conditioned, minimize
20 cool air loss. R-value is the constant time rate
21 resistance to heat flow through a unit area of a body
22 induced by a unit temperature difference between the



1 surfaces. R-values measure the thermal resistance of
2 building envelope components such as roof and walls.
3 The higher the R-value, the greater the resistance to
4 heat flow. Where possible, buildings shall be
5 oriented to maximize natural ventilation and day-
6 lighting without heat gain and to optimize solar for
7 water heating. This provision shall apply to new
8 residential facilities built using any portion of
9 state funds or located on state lands;

- 10 (3) Install solar water heating systems where it is cost-
11 effective, based on a comparative analysis to
12 determine the cost-benefit of using a conventional
13 water heating system or a solar water heating system.
14 The analysis shall be based on the projected life
15 cycle costs to purchase and operate the water heating
16 system. If the life cycle analysis is positive, the
17 facility shall incorporate solar water heating. If
18 water heating entirely by solar is not cost-effective,
19 the analysis shall evaluate the life cycle, cost-
20 benefit of solar water heating for preheating water.
21 If a multi-story building is centrally air
22 conditioned, heat recovery shall be employed as the



1 primary water heating system. Single family
2 residential clients of the department of Hawaiian home
3 lands and any agency or program that can take
4 advantage of utility rebates shall be exempted from
5 the requirements of this paragraph so they may
6 continue to qualify for utility rebates for solar
7 water heating;

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

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

18 (6) Use life cycle cost-benefit analysis to purchase
19 energy efficient equipment such as ENERGY STAR
20 products and use utility rebates where available to
21 reduce purchase and installation costs; and

1 (7) Procure environmentally preferable products, including
2 recycled and recycled-content, bio-based, and other
3 resource-efficient products and materials."

4 PART II

5 SECTION 4. Chapter 342J, Hawaii Revised Statutes, is
6 amended as follows:

7 1. By amending the title to read:

8 "HAZARDOUS AND UNIVERSAL WASTE"

9 2. By adding a new part to be appropriately designated and
10 to read:

11 "PART . UNIVERSAL WASTE SUBSTANCE REDUCTION

12 §342J-A Universal waste; lighting products. (a)

13 Beginning January 1, 2010, a person shall not sell or offer for
14 sale in this State, general purpose lights containing levels of
15 universal waste substances that would be prohibited from being
16 sold or offered for sale in the European Union under the RoHS
17 Directive.

18 (b) A manufacturer of general purpose lights shall prepare
19 and at the request of the department, submit within twenty-eight
20 days of the date of the request, technical documentation or
21 other information showing that the manufacturer's general



1 purpose lights sold or offered for sale in this State comply
2 with the requirements of the RoHS Directive.

3 (c) A person that violates this section or any rule
4 adopted pursuant to this section shall be subject to a fine of
5 up to \$1,000 for each violation of subsection (a), up to a
6 maximum of \$20,000, as provided by rules.

7 **§342J-B Fines.** The fines collected pursuant to this part
8 shall be deposited into the environmental management special
9 fund established in section 342G-63.

10 **§342J-C Rules.** The director shall adopt rules pursuant to
11 chapter 91 to implement this part."

12 SECTION 5. Section 342J-2, Hawaii Revised Statutes, is
13 amended by adding two new definitions to be appropriately
14 inserted and to read as follows:

15 "General purpose lights" means lamps, bulbs, tubes, or
16 other electric devices that provide functional illumination for
17 indoor residential, indoor commercial, and outdoor use. General
18 purpose lights do not include:

19 (1) Specialty lighting, including: an appliance lamp,
20 black light lamp, bug lamp, colored lamp, infrared
21 light lamp, reflector lamp, rough service lamp,
22 shatter resistant lamp, sign service lamp, silver bowl



1 lamp, showcase lamp, three-way lamp, traffic signal
2 lamp, and vibration service or vibration resistant
3 lamp;

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

6 (3) Lights for emergency purposes or health or safety
7 needs.

8 "RoHS Directive" means the directive on the restriction of
9 the use of certain hazardous substances in electrical and
10 electronic equipment which was adopted by the European Union and
11 came into effect on July 1, 2006, and that bans the placing on
12 the European Union market of new electrical and electronic
13 equipment containing more than agreed levels of lead, cadmium,
14 mercury, hexavalent chromium, polybrominated biphenyl and
15 polybrominated diphenyl ether flame retardants."

16 **PART III**

17 SECTION 6. Section 342G-63, Hawaii Revised Statutes, is
18 amended by amending subsection (b) to read as follows:

19 "(b) All moneys collected pursuant to section 342G-62 and
20 section 342J-A shall be deposited into the environmental
21 management special fund. All interest earned or accrued on
22 moneys deposited into the fund shall become a part of the fund."



PART IV

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

8 SECTION 8. There is appropriated out of the environmental
9 management special fund the sum of \$ or so much
10 thereof as may be necessary for fiscal year 2008-2009 to develop
11 a statewide program for recycling mercury-containing compact
12 fluorescent bulbs as required by this part.

13 The sum appropriated shall be expended by the department of
14 health for the purposes of this part.

PART V

15
16 SECTION 9. If any provision of this Act, or the
17 application thereof to any person or circumstance is held
18 invalid, the invalidity does not affect other provisions or
19 applications of the Act, which can be given effect without the
20 invalid provision or application, and to this end the provisions
21 of this Act are severable.



1 SECTION 10. In codifying the new sections added by section
2 4 of this Act, the revisor of statutes shall substitute
3 appropriate section numbers for the letters used in designating
4 the new sections in this Act.

5 SECTION 11. Statutory material to be repealed is bracketed
6 and stricken. New statutory material is underscored.

7 SECTION 12. This Act shall take effect upon its approval;
8 provided that section 8 shall take effect on July 1, 2008.



Report Title:

Lighting; Energy Efficiency; Hazardous and Universal Waste
Substance Reduction; Appropriation

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. Requires the use of ENERGY STAR labeled lamps in agency buildings and facilities. Directs the department of health to develop a statewide recycling program for recycling mercury-containing compact fluorescent bulbs. Makes appropriation. (SD1)

