HOUSE OF REPRESENTATIVES
TWENTY-FOURTH LEGISLATURE, 2008
STATE OF HAWAII

H.B. NO. 2504 H.D. 1

A BILL FOR AN ACT

RELATING TO LIGHTING.

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

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

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

(1) Establishing a net energy metering program, interconnection standards, and renewable energy tax credits;

(2) Establishing greenhouse gas and energy consumption reduction goals for state facilities and requiring the use of energy-efficient products in state facilities; and

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

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

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

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

The purpose of this Act is to:

(1) Phase out and ban the use of certain energy-inefficient lighting, especially those products with lead and high mercury content;

(2) Establish a state lighting efficiency standard for general purpose lights; and

(3) Direct the department of health to develop a statewide recycling program for recycling all fluorescent lamps.

PART I

SECTION 2. Chapter 342J, Hawaii Revised Statutes, is amended by adding a new part to be appropriately designated and to read as follows:

"**PART . HAZARDOUS SUBSTANCE REDUCTION**

§342J-A Lighting; hazardous substance standards. (a) Beginning January 1, 2010, a person shall not sell or offer for sale in this state, general purpose lights containing levels of hazardous substances that would be prohibited from being sold or offered for sale in the European Union under the RoHS Directive; provided that this section shall not apply to high output and very high output linear fluorescent lamps greater than thirty-two millimeters in diameter, and preheat linear fluorescent lamps. Beginning January 1, 2014, the department shall determine, in consultation with companies that manufacture

the lamps, whether the lamps excluded under the previous sentence shall be subject to this section.

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

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

§342J-B Lighting efficiency standards. (a) Between January 1, 2012, and December 31, 2013, inclusive, no general purpose light may be sold in this state unless it produces at least thirty lumens per watt of electricity consumed.

(b) On and after January 1, 2014, no general purpose light may be sold in this state unless it produces at least fifty lumens per watt of electricity consumed.

(c) Within ninety days before January 1, 2012, the department shall notify in writing, all retail sellers and

distributors of general purpose lights doing business in this state, of the provisions of this section.

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

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

(f) The department of business, economic development, and tourism may recommend programs to encourage the sale in this state of general purpose lights that meet or exceed the standards set forth in subsections (a) and (b)."

SECTION 3. Section 342J-2, Hawaii Revised Statutes, is amended by adding the definitions of "general purpose lights" and "RoHS Directive" to be appropriately inserted and to read as follows:

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

(1) Specialty lighting, including: appliance, black light, bug, colored, infrared light, reflector, rough service, shatter resistant, sign service, silver bowl, showcase, three-way, traffic signal, and vibration service or vibration resistant;

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

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

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

PART II

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

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

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

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

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

(3) Install solar water heating systems where it is cost-effective, based on a comparative analysis to determine the cost-benefit of using a conventional water heating system or a solar water heating system. The analysis shall be based on the projected life cycle costs to purchase and operate the water heating system. If the life cycle analysis is positive, the facility shall incorporate solar water heating. If water heating entirely by solar is not cost-effective, the analysis shall evaluate the life cycle, cost-benefit of solar water heating for preheating water. If a multi-story building is centrally air conditioned, heat recovery shall be employed as the primary water heating system. Single family

residential clients of the department of Hawaiian home lands and any agency or program that can take advantage of utility rebates shall be exempted from the requirements of this paragraph so they may continue to qualify for utility rebates for solar water heating;

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

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

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

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

PART III

SECTION 5. The director of health shall develop a statewide program for recycling all fluorescent lamps, including mercury-containing compact fluorescent bulbs before January 1, 2011, and report to the legislature twenty days before the commencement of the 2011 regular session on the funds and legislation necessary to implement the recycling program.

PART IV

SECTION 6. If any provision of this Act, or the application thereof to any person or circumstance is held invalid, the invalidity does not affect other provisions or applications of the Act, which can be given effect without the invalid provision or application, and to this end the provisions of this Act are severable.

SECTION 7. In codifying the new sections added by section 2 of this Act, the revisor of statutes shall substitute appropriate section numbers for the letters used in designating the new sections in this Act.

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

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 certain lighting products with lead and high mercury content; establishes a statewide lighting efficiency standard for general purpose lights; directs the department of health to develop a statewide recycling program for recycling all fluorescent lamps. (HB2504 HD1)