



STATE OF HAWAII
DEPARTMENT OF HEALTH
P.O. Box 3378
HONOLULU, HAWAII 96801-3378

In reply, please refer to:
File:

COMMITTEE ON FINANCE

S.B. 2842, SD2, HD1, RELATING TO LIGHTING

Testimony of Chiyome Leinaala Fukino, M.D.
Director of Health

March 27, 2008
3:00 p.m.

1 **Department's Position:** The Department respectfully opposes the measure.

2 **Fiscal Implications:** The Department is directed to develop a statewide recycling program for
3 fluorescent bulbs and compact fluorescent bulbs. We very roughly estimate the cost at \$200,000 per
4 year. Development of a new recycling program is not included in the executive supplemental budget
5 proposal.

6 The bill also calls for a report before the commencement of the 2011 regular session on funds
7 and legislation necessary to implement the recycling program.

8 **Purpose and Justification:** S.B. 2842, SD2, HD1 proposes to phase out and ban the use of lighting
9 products with lead and mercury; establishes a statewide lighting efficiency standard; and directs the
10 Department of Health to develop a statewide recycling program for mercury containing compact
11 fluorescent bulbs.

12 The Department supports energy-efficiency initiatives and the use of renewable energy sources,
13 but this bill presents problems.

14 This current version of the bill proposes to revise § 342J Hawaii Revised Statutes by adding a
15 new part called Hazardous Substance Reduction. This new part would require the Department of

1 Health, to regulate general purpose lights containing levels of hazardous substances using European
2 Union standards established under the RoHS directives. Additionally the Department would adopt rules
3 in consultation with the Department of Business, Economic Development and Tourism on lighting
4 efficiency standards. HRS §342J, Management of Hazardous Waste, is not the appropriate chapter to
5 deal with lighting efficiency standards and general consumer product requirements. Devices that
6 contain a hazardous substance are not hazardous waste until they can no longer be used for its intended
7 purpose. As an example, paint thinner is not hazardous waste until it is used and discarded. A
8 fluorescent bulb is not a hazardous waste until it is destined for disposal or recycling. For this reason,
9 HRS §342J is not the appropriate chapter to deal with manufacturer's lighting standards, nor is the
10 Department the appropriate agency to develop lighting efficiency standards.

11 There is current national dialogue on energy efficiency and lighting standards, use of hazardous
12 substances, recycling and disposal options. This bill may be premature and the State should consider
13 participating in these nationwide discussions first.

14 SB 2842, SD 2, HD1 also directs the Department to develop a statewide program for the
15 recycling of mercury-containing compact fluorescent bulbs before January 1, 2011. Recycling of waste
16 compact fluorescent bulbs is currently an option under the hazardous waste regulations. The department
17 can provide and incorporate more education and promotion of recycling fluorescent bulbs for businesses
18 that generate hazardous waste under its existing Pollution Prevention/Waste Minimization program.

19 We respectfully oppose the development of a new and separate recycling program. In light of
20 the additional personnel and continued funding required to implement the proposed program, the
21 Department requests that any provision of resources not adversely affect the priorities in our executive
22 supplemental budget request.

Thank you for the opportunity to testify on this measure.



**DEPARTMENT OF BUSINESS,
ECONOMIC DEVELOPMENT & TOURISM**

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Statement of
THEODORE E. LIU
Director
Department of Business, Economic Development, and Tourism
before the
HOUSE COMMITTEE ON FINANCE

Thursday, March 27, 2008
3:00 p.m.
State Capitol, Conference Room 308

in consideration of
SB2842, SD2, HD1
RELATING TO LIGHTING.

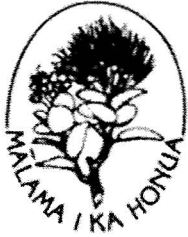
Chair Oshiro, Vice Chair Lee, and Members of the Committee.

The Department of Business, Economic Development, and Tourism (DBEDT) supports the intent of SB2842, SD2, HD1, which 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; and directs the Department of Health to develop a statewide recycling program for recycling mercury-containing compact florescent bulbs. There have been many good ideas introduced this legislative session that support the State's energy goals. We note, however, that this proposal does not provide resources and as such, is not included in the Executive's Supplemental Budget. We request that any resources provided will not displace the priorities contained in that budget.

DBEDT supports the use of energy efficient lighting as offered by Energy Star compact fluorescent lighting products, which are presently in the marketplace and already meet the fifty

lumens per watt standard. As noted by the Department of Health, we are aware that there is national discussion on lighting standards and that there are many new lighting products to offer consumers opportunities to select high efficiency lighting for their homes and businesses. Therefore, at this time setting standards only for Hawaii may be premature. We concur on the need to continue consumer education on the proper selection and disposal of high efficiency lighting, and defer to the Department of Health on the implementation measures called for in this bill.

Thank you for the opportunity to offer these comments.



Sierra Club Hawai'i Chapter

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HOUSE COMMITTEE ON FINANCE

March 27th, 2008, 3:00 P.M.

(Testimony is 2 pages long)

TESTIMONY IN STRONG SUPPORT OF SB 2842 SD2 HD1

Chair Oshiro and members of the Committee:

The Sierra Club, Hawai'i Chapter, with 5500 dues paying members statewide, strongly supports SB 2842 SD2 HD1, establishing a statewide lighting efficiency standard. We support a policy that establishes a lumens-based standard for general purpose bulbs as SB 2842 SD2 HD1 does as opposed to an outright ban on one technology or another. **Further, while we support most of the amendments made by the previous House committee, we prefer that the lighting efficiency standards be placed in Hawaii's energy resources statute (HRS § 196) instead of the hazardous waste law (HRS § 342J).**

Incandescent lights are basically electric space heaters that give off light as a byproduct. They are highly inefficient, wasting most of the power they consume as heat. Some countries (Australia, Canada) have passed outright bans on incandescent bulbs. While this is an option, most policy experts agree that the superior approach is to set the desired efficiency standards rather than prescribe the actual technology (i.e. incandescent, compact fluorescent, light-emitting diode, glowworms, etc.). A lighting efficiency standard would not directly prohibit or promote any one technology over another—it would simply set the efficiency bar that any light source has to achieve, regardless of technology. Lights needed for medical, emergency, or safety lighting is properly excluded from this standard (although we believe the exemption list in SB 2842 SD2 HD1 could be tightened).

A lighting standard is necessary because far too often consumers make poor energy purchasing decisions. Consumers usually focus on the first cost of an energy-consuming product instead of its lifecycle or energy use cost. This leads to highly irrational purchasing decisions, where consumers end up expending far more on basic energy use than needed. This wouldn't necessarily be a problem requiring government intervention, but the corollaries to a consumer's energy money wasting is excess greenhouse gas pollution, increased oil dependency, and utility system strain. All three of these impacts affect society as a whole.

Consider a typical lighting need for a small reading lamp. Let's say a Kaua'i resident uses a typical 40-watt incandescent bulb for the lamp. The resident could use an equivalent 10-watt compact fluorescent light (CFL) or even a new 4-watt light emitting diode (LED) bulb. The table on the following page presents the various costs and impacts for the three options if the lamp is illuminated for an average of 5 hours per day (at the current \$0.35 per kilowatt-hour on Kaua'i).

Bulb	Wattage	Lumens	Eff (Lum/W)	Watt-hours	kWh	\$	CO ₂ (lbs)	Initial Cost	5 year cost
<i>Incandescent</i>	40	420	10.5	73000	73	\$25.55	147	\$ 0.75	\$ 128.50
<i>Compact Fluorescent</i>	10	520	52	18250	18.25	\$ 6.39	37	\$ 2.50	\$ 34.44
<i>Light Emitting Diode</i>	4	230	57.5	7300	7.3	\$ 2.56	15	\$ 30.00	\$ 42.78

Despite the increased initial cost of both a CFL and an LED, the savings become dramatic over a few years. In this example, in fact, it would take just over one month for a CFL to recoup its initial cost in electricity savings! After that the resident would enjoy 75% savings every hour the bulb is used.

Even more striking is the greenhouse gas savings offered by a higher efficiency light (CFL or LED). One year of incandescent usage as stated above would produce roughly 150 pounds of greenhouse gas. Switching to a CFL would produce about 40 pounds, and switching to a LED would produce only 15 pounds—90% less than an incandescent.

We believe that the timeline for the lighting standards set forth in this measure are achievable and fair. Given the strong market pressure for more energy efficient lighting and appliances, the cost of high-efficiency lighting—particularly LEDs—is likely to drop significantly by the time the new Hawai'i standards take effect.

The Sierra Club also strongly supports the establishment of a CFL recycling program as described in Section 5 of SB 2842 SD2 HD1. An education campaign to ensure full participation in the recycling program should be part of this effort. An alternative approach to capture used CFLs and prevent mercury from entering Hawaii's landfills or H-POWER would be to require that light bulb retailers take back the CFLs that they sell.

While we strongly support the concept of a lighting efficiency standard, we are concerned about placing this standard within Hawaii's existing hazardous waste chapter. We believe that the new standard should be placed in the more appropriate HRS § 196, Hawaii's energy resources chapter. We would also support a higher efficiency standard for the year 2014 and beyond, perhaps something greater than 60 lumens per watt.

Please forward SB 2842 SD2 HD1. We are available to work with the Committee on a House draft to address the following issues if there is interest:

1. Tightening the lighting efficiency standards exemption list;
2. Moving the lighting standard from HRS § 342J to HRS § 196; and
3. Increasing the standard for the year 2014 (perhaps 60 or 80 lumens per watt).

Thank you for the opportunity to testify.

Testimony before the
House Committee on
Finance
Agenda # 1

S. B. 2842 SD2 HD1- Relating to Lighting

Thursday, March 27, 2008
3:00 p.m., Conference Room 308

by Alan K.C. Hee
Manager, Energy Services Department
Hawaiian Electric Company, Inc.

Chair Oshiro, Vice Chair Lee and Members of the Committee:

My name is Alan Hee and I am testifying on behalf of Hawaiian Electric Company, Inc., and its subsidiaries, Maui Electric Company (MECO) and Hawaii Electric Light Company, Inc. (HELCO).

Hawaiian Electric strongly supports the installation of energy efficient lighting products and strongly supports SB 2842 SD2 HD1. The response to our demand-side management compact fluorescent lamp (CFL) rebate program by customers and distributors has been excellent, resulting in greater awareness and availability of these energy efficient lighting products.

Thank you for this opportunity to testify.