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Statement of
THEODORE E. LIU
Director
Department of Business, Economic Development, and Tourism
before the
SENATE COMMITTEE
ON
ECONOMIC DEVELOPMENT AND TAXATION
Tuesday, February 12, 2008
9:25 a.m.
State Capitol, Conference Room 224

in consideration of
SB2623
RELATING TO RENEWABLE ENERGY TECHNOLOGIES.

Chair Fukunaga, Vice Chair Espero, and Members of the Committee.

The Department of Business, Economic Development, and Tourism (DBEDT) supports SB2623. We defer to the Department of Taxation on tax implications.

SB2623 replaces the term "photovoltaic system" with "solar electric energy system" so that solar thermal systems which produce electricity (as opposed to simply heating water) would be eligible for the same income tax credit as photovoltaic systems.

Solar thermal electric systems are in the same general cost range as photovoltaic systems, and the end product is also electricity. The proposed change would allow a solar thermal electric system to displace a similar sized photovoltaic system, so the estimated revenue impact is zero.

We also do not anticipate any revenue impact from the proposed change in the definition of "Solar Thermal Energy System" to "include solar water heating, solar air conditioning, solar

space heating, solar drying, and solar process heat systems." The proposed change is adding detail but not changing what is commonly understood to be included under the meaning of "solar thermal."

The use of solar energy to meet our energy needs is consistent with State energy objectives.

Thank you for the opportunity to offer these comments.



COLLEGE OF SOCIAL SCIENCES
HAWAII ENERGY POLICY FORUM
UNIVERSITY OF HAWAII AT MĀNOA

Hawai'i Energy Policy Forum

Mr. Robbie Alm, HECO
Ms. Amy Asselbayer, Ofc of US Rep.
Neil Abercrombie
Ms. Catherine Awakuni, Div. of
Consumer Advocacy
Mr. Warren Bollmeier
Hi Renewable Energy Alliance
Mr. Carlito Caliboso, PUC (Observer)
Mr. Albert Chee, Chevron
Mr. Kyle Datta, U.S. Biofuels
Sen. Kalani English, HI State Senate
Mr. Mitch Ewan, UH HNEI
Mr. Carl Freedman
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Mr. Mark Glick, OHA
Mr. Steve Golden, The Gas Company
Dr. Michael Hammett, RCUH
Ms. Paula Helfrich, EDAH
Mr. William Kaneo, HI Institute for
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Mr. Maurice Kaya, DBEDT
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Mr. Mike Kitamura, Ofc of US Sen.
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Mr. Laurence Lau, DOH
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Mr. Aaron Leong, Ofc of US Senator
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Mr. Peter Rosegg, HECO
Mr. Steven Rymsha, KIUC
Mr. Riley Saito, PowerLight Corp.
Mr. Glenn Sato, Kauai County OED
Mr. Bill Short, BIA of Hawaii
Mr. Ray Starling, HI Energy Grp
Mr. Lance Tanaka, Tesoro HI Corp
Dr. Don Thomas, UH Center for the
Study of Active Volcanoes
Mr. Murray Towill, Hawai'i
Hotel Assn
Ms. Joan White, Hon Community
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Testimony of
Warren Bollmeier
Co-Chair – Renewable Energy Working Group
Hawai'i Energy Policy Forum

Senate Committee on Economic Development & Taxation
Tuesday, February 12, 2008
9:25 a.m.
Conference Room 224

IN SUPPORT OF SB 2623 - Relating to Renewable Energy Technologies

I am Warren Bollmeier, Co-Chair of the Renewable Energy Working Group of the Hawaii Energy Policy Forum ("Forum"). The Forum is comprised of 45 representatives from the electric utilities, oil and natural gas suppliers, environmental and community groups, renewable energy industry, and federal, state and local government, including representatives from the neighbor islands. We have been meeting since 2002 and have adopted a common vision and mission, and a comprehensive "10 Point Action Plan," which serves as a framework and guide for meeting our preferred energy vision and goals. The Forum supports the passage of SB 2623 as it helps achieve the goal of Point One - expand renewable energy opportunities.

The purpose of SB 2623 is to expand the renewable energy technologies tax credit to include solar electric energy systems. Specifically, the section on "Photovoltaic energy systems" is amended to read "Solar electric energy systems." Solar electric systems are defined as "solar thermal electric and photovoltaic systems." The term "solar thermal systems" is also defined. The Forum supports this bill as it clearly distinguishes the two types of solar systems (solar thermal and solar electric), which are subject to different Renewable Energy Technology Income Tax Credit ("RETITC") treatments. This is particularly important as there are more types of solar systems that are being installed in or being considered for Hawaii.

Solar thermal systems include the solar water heating (flat-plate collectors) that we see now on at least 25% of our single-family homes in Hawaii. While the flat-plate collectors are used to heat our water, solar thermal electric systems use technologies, such as parabolic dish troughs, to heat water or a working fluid to higher temperatures in order to generate electricity. A utility scale parabolic dish trough system is currently under development in Hawaii.

Thank you for this opportunity to testify.

This testimony reflects the position of the Forum as a whole and not necessarily of the individual Forum members or their companies or organization



Hawaii Solar Energy Association
Serving Hawaii Since 1977

TESTIMONY OF THE HAWAII SOLAR ENERGY ASSOCIATION
IN REGARD TO S.B. 2623, S.D. 1
RELATING TO RENEWABLE ENERGY TECHNOLOGIES
BEFORE THE
SENATE COMMITTEE ON ECONOMIC DEVELOPMENT & TAXATION
ON
TUESDAY, FEBRUARY 12, 2008

Chair Fukunaga, Vice-Chair Espero and members of the committee, my name is Richard Reed and I represent the Hawaii Solar Energy Assn. (HSEA). HSEA is a professional trade association established in 1977 and affiliated with the Solar Energy Industries Association (SEIA). HSEA represents manufacturers, distributors, contractors, financial entities and utility companies active in the solar energy industry. We strongly support the passage of S.B. 2623, S.D.1.

The realm of solar energy includes both heat (solar thermal) and light (solar electricity). Solar thermal energy is particularly versatile in that it can be used to provide air conditioning, to heat water and air, or to generate electricity. High temperature solar thermal steam generators, often referred to generically as concentrating solar power (CSP) technologies, are capable of generating enormous amount of electricity.

S.B. 2623, S.D. 1 provides a definitional change (line 15) that acknowledges that both PV and solar thermal systems are capable of generating electricity. The bill deletes the reference to “photovoltaic energy systems” and replaces it with “solar electric energy systems”, which is more accurate and clarifies the range of solar technologies capable of generating power.

S.B. 2623, S.D. 1 also provides a definition for qualifying “solar thermal energy systems” – that Do Not generate electricity – to include solar water heating, solar air conditioning, solar space heating, solar drying, and solar process heat systems.

These changes provide clarity to the law and make this statute more consistent with the real world technical applications for solar energy.

Thank you for the opportunity to testify.

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**SENATE COMMITTEE ON ECONOMIC DEVELOPMENT & TAXATION
TESTIMONY REGARDING SB 2623
RELATING TO RENEWABLE ENERGY TECHNOLOGIES**

TESTIFIER: KURT KAWAFUCHI, DIRECTOR OF TAXATION (OR DESIGNEE)

DATE: FEBRUARY 12, 2008

TIME: 9:25AM

ROOM: 224

This legislation amends the current Renewable Energy Technologies Income Tax Credit, by adding a new definition for "solar electric energy systems."

The Senate Committee on Energy & Environment passed this measure unamended.

The Department of Taxation has concerns with this legislation.

The Department does not like this additional definition and prefers that a definition in this credit focus on what is put into a machine rather than an approach based upon what the machine creates. In short, the Department prefers defining the technology based upon inputs; not outputs. As the law is currently drafted, renewable energy technologies are defined based upon the type of renewable resource that enters a system (*e.g.*, wind, sun, light). This legislation would amend the law to add an additional credit component for what is created (*e.g.*, solar water heating, solar air conditioning, solar space heating, solar drying, and solar process heat system).

Based upon the Department's estimates, this legislation will not have an impact on the general fund. It is assumed that all "solar electric" systems would have previously qualified under "solar thermal" or "photovoltaic." Thus, the only change would be in the maximum credit amounts for previously "solar thermal" systems.

L E G I S L A T I V E

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SUBJECT: INCOME, Renewable energy technology systems**BILL NUMBER:** SB 2623; HB 2005 (Identical)*1/24 EEP***INTRODUCED BY:** SB by Menor, Inouye, Sakamoto, Trimble, 7 Democrats & 1 Republican; HB by Morita and Carroll**BRIEF SUMMARY:** Amends HRS section 235-12.5 to replace the term "photovoltaic" with "solar electric." Adds a definition of "solar electric energy systems" to include solar thermal electric and photovoltaic systems. Also adds a definition of "solar thermal energy systems" to include solar water heating, solar air conditioning, solar space heating, solar drying, and solar process heat systems.**EFFECTIVE DATE:** Tax years beginning after December 31, 2007**STAFF COMMENTS:** Hawaii's income tax credit for alternate energy devices was established by the 1976 legislature originally for solar energy systems and was later expanded to include wind energy devices, heat pumps, ice storage systems, and photovoltaic systems. This measure proposes to further expand the state energy tax credits to include solar air conditioning, solar space heating, solar drying, and solar process heat systems.

While some may consider an incentive necessary to encourage the use of energy conservation devices, it should be noted that the high cost of these energy systems limits the benefit to those who have the initial capital to make the purchase. If the combined incentives of federal and state income tax credits during the early 1980's equal to 50% were not able to encourage more than those who did install alternate energy devices during the period when the federal credits were in effect, it is questionable whether the state tax credits along with the federal energy tax credits (30%) will encourage many more taxpayers to install such devices.

If it is the intent of the legislature to encourage a greater use of renewable energy systems by extending the existing energy tax credits to include solar thermal energy systems, as an alternative, consideration should be given to a program of low-interest loans available to all income levels as is being proposed in HB 2101. However, if the taxpayer avails himself of the loan program, the renewable energy credit should not be granted for projects utilizing the loan program as the projects would be granted a double subsidy by the taxpayers of the state.

Low-interest loans, which can be repaid with energy savings, would have a much more broad-based application than a credit which amounts to nothing more than a "free monetary handout" or subsidy by state government for those taxpayers who more than likely can afford to make the conversion. A program of low or no-interest loans would do much more to increase the acquisition of these devices. Persons of all income levels could borrow the funds, make the acquisition, and repay the state program in an amount equal to the avoided costs that their utility bills would now reflect. While this recommendation has fallen on deaf ears in the past; the above-mentioned proposal would help put such

SB 2623; HB 2005 - Continued

devices within the reach of more people. The credit, on the other hand, merely becomes a windfall for those who are able to come up with the up-front costs for such devices. This leaves the poor and lower-middle income families still dependent on fossil fuel energy.

While this proposal focuses on newer alternate energy technologies which are far more expensive to acquire, it underscores the above point that the credit benefits only those who have the means to install such devices. If lawmakers truly want to provide a financial incentive for taxpayers to make the switch to using these alternative energy devices while taking advantage of the credit, then a program of no-interest, or low-interest loans would be far more effective. The state could provide the capital to acquire these devices, and the taxpayer could receive a discount of 30% provided by the federal tax credit. The amount of the state loan could then be amortized by the energy savings realized by the taxpayer.

Merely providing federal and state tax credits ignores the reality of living in Hawaii, that is, most families don't have the resources to make such a large capital outlay while struggling to put food on the table.

Digested 1/22/08