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Bill No. 2451

Support  Y  N

Date 4/27

Time 1822

Cat AF  AS  AX  B  C

Type 1  2  WI

Statement of  
**THEODORE E. LIU**  
Director  
Department of Business, Economic Development, and Tourism  
before the  
**HOUSE COMMITTEE ON  
ENERGY AND ENVIRONMENTAL PROTECTION**  
Thursday, January 28, 2010  
9:00 a.m.  
State Capitol, Conference Room 325

in consideration of  
**HB2451**  
**RELATING TO ZERO NET ENERGY BUILDING PERMITTING.**

Chair Morita, Vice Chair Coffman, and Members of the Committee. The Department of Business, Economic Development, and Tourism (DBEDT) supports the intent of HB2451 which requires priority state and county permitting for buildings that consumer zero net energy and have no carbon emissions.

We recommend that the reference to net zero capable building refer only to single family detached residential dwellings. At this time it is difficult to address multi-story commercial as well as multi-residential buildings to make them net zero capable. We feel, however, that single-family detached dwellings can be addressed to reach net zero capable. Therefore, we recommend that HB2451 be amended to include the following:

As a result of discussions with the National Renewable Energy Laboratory, a net-zero capable home is defined as 35 percent more energy efficient than the International Energy Code Council 2006. A 35 percent more efficient residence may be based on performance based or

prescriptive based design. The State Building Code Council shall develop a prescriptive alternative that is equivalent to the 35 percent more energy efficient than IECC 2006. This alternative shall take effect January 1, 2012.

We recommend the 35 percent more efficient level due to the mandatory solar water heating statute that is effective January 1, 2010.

Thank you for the opportunity to provide these comments.



COLLEGE OF SOCIAL SCIENCES

# HAWAII ENERGY POLICY FORUM

UNIVERSITY OF HAWAII AT MĀNOA

Bill No. 2541  
 Support  Y  N  
 Date 1/27  
 Time 1631  
 Cat **AF AS AX**  **BC**  
 Type 1  2  WI

Testimony of  
 Darren Kimura  
 Co-Chair – Energy Efficiency Working Group  
 Hawaii Energy Policy Forum

House Committee on Energy and Environmental Protection

Thursday, January 28, 2010

9:00 a.m.

Conference Room 325

## Hawaii Energy Policy Forum

- Ms. Stephanie Ackerman, The Gas Co.
- Mr. Robbie Alm, HECO
- Ms. Amy Asselbayer, Office of US Rep. Neil Abercrombie
- Ms. Madeleine Austin, World Business Academy
- Mr. Warren Bollmeier, Hawaii Renewable Energy Alliance
- Mr. Carlito Caliboso, PUC (Observer)
- Mr. Albert Chee, Chevron
- Ms. Elizabeth Cole, The Kohala Center
- Mr. Kyle Datta, New Energy Partners
- Ms. Laura Dierenfield, People's Advocacy for Trails Hawaii (PATH)
- Mr. Mark Duda, HI Solar Energy Asst.
- Sen. Kalani English, Hawaii State Senate
- Mr. Mitch Ewan, UH HNEI
- Mr. Carl Freedman, Haiku Design & Analysis
- Sen. Mike Gabbard, Hawaii State Senate
- Mr. Mark Glick, OHA
- Dr. Michael Hammett, RCUH
- Dr. Robert Harris, Sierra Club
- Mr. William Kaneko, Hawaii Institute for Public Affairs
- Mr. Darren Kimura, Energy Industries Holdings
- Ms. Kelly King, Sustainable Biodiesel Alliance
- Mr. Mike Kitamura, Office of US Senator Daniel K. Akaka
- Mr. Kal Kobayashi & Victor Reyes, Maui County Energy Office
- Mr. Laurence Lau, State of Hawaii DOH
- Mr. Allyn Lee, C&C of Honolulu Dept. of Design & Construction
- Dr. Stephen Meder, UH Center of Smart Building & Community Design
- Dr. Sharon Miyashiro, UH College of Social Sciences Public Policy Center
- Rep. Hermina Morita, Hawaii State House of Representatives
- Mr. Dean Nishina, Div of Consumer Advocacy
- Mr. Tim O'Connell, USDA-Rural Development
- Ms. Melissa Pavlicek, Hawaii Public Policy Advocates
- Mr. Ted Peck, State of Hawaii DBEDT Strategic Industries Division
- Mr. Randy Perreira, Hawaii State AFL-CIO
- Dr. Rick Rocheleau, UH HNEI
- Mr. William Rolston, Hawaii County Dept. of Research & Development
- Mr. Peter Rosegg, HECO
- Mr. Steven Rymsha, KIUC
- Mr. Riley Saito, PowerLight Corporation
- Mr. Glenn Sato, Kauai County Office of Economic Development
- Mr. Bill Short, BIA of Hawaii
- Ms. Joelle Simonpietri, Simonpietri Enterprises LLC
- Mr. H. Ray Starling, Hawaii Energy Group LLC
- Mr. Lance Tanaka, Tesoro Hawaii Corp.
- Dr. Don Thomas, UH Center for the Study of Active Volcanoes
- Ms. Maria Tome, State of Hawaii DBEDT Energy Office
- Mr. Murray Towill, Hawaii Hotel Association
- Mr. Joshua Wisch, Office US Representative Mazie Hirono
- Mr. Alan Yamamoto, Office US Senator Daniel Inouye

**IN SUPPORT OF HB 2541, Relating to Net Zero Energy Building Permitting**

I am Darren Kimura, Co-Chair of the Energy Efficiency Working Group of the Hawaii Energy Policy Forum ("Forum"). The Forum is comprised of 47 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 strongly supports passage of HB 2541 as it promotes energy efficiency technology development for the State.

HB 2541 defines "net zero energy building" as one that consumes zero net energy and produces zero carbon emissions; and gives priority handling and processing for state and county permits for such projects.

Net zero energy buildings are as important to reducing carbon emissions and our use of fossil fuels as are renewable energy projects –and they are less expensive and can be brought on line more immediately. This bill is a no-cost incentive that will increase our energy efficient building stock and achieve a cleaner energy future for Hawaii.

Based on the foregoing, the Forum strongly supports HB2541. and respectfully urges passage of the bill.

Thank you for the 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 organizations.*



# Sierra Club Hawai'i Chapter

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Bill No. 2451

Support  Y  N

Date 1/27

Time 1636

Cat AF AS AX  BC

Type 1 2 WI

## HOUSE COMMITTEE ON ENERGY & ENVIRONMENTAL PROTECTION

January 28, 2010, 9:00 A.M.

(Testimony is 2 pages long)

### TESTIMONY IN SUPPORT OF HB 2451, WITH PROPOSED AMENDMENTS

Aloha Chair Morita and Members of the Committee:

The Sierra Club, Hawai'i Chapter supports the intent of HB 2451, which creates a modest incentive to build net zero energy buildings. This bill should be taken a step further, however, so as to encourage a host of energy efficiency measures rather than simply offering a small enticement for a relatively high upfront cost.

In order to meet Hawai'i's aggressive greenhouse gas reduction and energy security goals, it is critically important to transform the building sector, which accounts for 72% of electricity use<sup>1</sup> and over 36% of greenhouse gas emissions in the U.S.<sup>2</sup> Further, improving the resource use of new buildings is critically important to improve the future comfort and affordability of homes.

Buildings have a many-decade lifetime, and today's buildings will continue to be a majority of all buildings in 2050. Without a focused effort to reduce energy demand in existing buildings, it will be virtually impossible to meet even the most modest greenhouse gas reduction targets. Reducing energy demand in buildings includes converting to solar hot water heaters; upgrading lighting; installing more efficient heating and cooling systems; and other improvements.

It is apparent from our conversations with experts in the community that the relatively small enticement proposed in this measure would not be much of an enticement to construct net zero energy buildings.

In order to fulfill the general purpose of this measure, two possible amendments deserve discussion. HB 2451 could be amended to reference LEED Gold Standard or a similar building design (which includes energy efficiency standards in its rating system). This standard provides a complete framework for assessing building performance and meeting sustainability goals. Based on well-founded scientific standards, LEED emphasizes state of the art strategies for

<sup>1</sup> Buildings Energy Data Book September 2007: 1.1 Buildings Sector Energy Consumption.

<sup>2</sup> EIA 2006: Emissions of Greenhouse Gases in the United States.

sustainable site development, water savings, energy efficiency, materials selection and indoor environmental quality.

Another possible method is replace the phrase “net zero energy building” with the phrase “energy efficient building” and use the language recently proposed in Arizona:

"ENERGY EFFICIENT BUILDING" MEANS NEW RESIDENTIAL AND COMMERCIAL BUILDINGS THAT MEET OR EXCEED THE ENERGY EFFICIENCIES PRESCRIBED BY THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY ENERGY STAR PROGRAM OR BY A LEADERSHIP IN ENERGY AND ENVIRONMENTAL DESIGN GREEN BUILDING RATING STANDARD DEVELOPED BY THE UNITED STATES GREEN BUILDING COUNCIL, OR AN EQUIVALENT GREEN BUILDING STANDARD, OR THAT ARE AT LEAST FIFTEEN PER CENT MORE ENERGY EFFICIENT THAN THE 2009 INTERNATIONAL ENERGY CONSERVATION CODE.

Either of these two amendments would save future homeowners money through energy efficiency over the life of the building, stimulate the green building industry in Hawai'i, and create models for the building industry to experience and learn from.

Thank you for this opportunity to provide testimony.

**HAWAII RENEWABLE ENERGY ALLIANCE**

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Inter Island Solar Supply

John Crouch  
Sunpower

Herbert M. (Monty) Richards  
Kahua Ranch Ltd.

**TESTIMONY OF WARREN BOLLMEIER ON BEHALF OF THE HAWAII  
RENEWABLE ENERGY ALLIANCE BEFORE THE HOUSE COMMITTEE ON  
ENERGY AND ENVIRONMENTAL PROTECTION**

**HB 2451, RELATING TO ZERO NET ENERGY BUILDING PERMITTING**

January 28, 2010

Chair Morita, Vice-Chair Coffman and members of the Committee I am Warren Bollmeier, testifying on behalf of the Hawaii Renewable Energy Alliance (HREA). HREA is an industry-based, nonprofit corporation in Hawaii established in 1995. Our mission is to support, through education and advocacy, the use of renewables for a sustainable, energy-efficient, environmentally-friendly, economically-sound future for Hawaii. One of our goals is to support appropriate policy changes in state and local government, the Public Utilities Commission and the electric utilities to encourage increased use of renewables in Hawaii.

The purpose of HB 2451 is to require priority state and county permitting for buildings that consume zero net energy and have no carbon emissions. HREA strongly supports this measure for the following reasons:

1. Supports the HCEI and RPS. Energy savings are a key component to both the HCEI (30% of the 70% goal by 2030) and currently also count towards are RPS.
2. Cost little, if any, dollars to implement. We believe implementation of this measure will not require any new state funds. We also do not believe it will result in cost impacts to the county planning departments.
3. Sends a good message. We also believe this measure sends a good message to state and county agencies, end-users and to industry, i.e., we want to facilitate the creation of zero net energy buildings in Hawaii, as well as convert existing building stock. The net result of this measure would be to save at least 30% of the building energy requirements.

Thank you for this opportunity to testify.

Bill No. 2451

Support  N

Date 1/29

Time 2017

Cat AF AS AX  BC

Type 1  WI



**Hawaii Solar Energy Association**  
Serving Hawaii Since 1977

Bill No. 2451

Support  Y  N

Date 1/27

Time 2242

January 28, 2010  
9:00 AM

House  
Committee on Energy and Environmental  
Protection  
HB2451

Mark Duda  
President

Type 1  2  WI

**HOUSE COMMITTEE ON ENERGY & ENVIRONMENTAL PROTECTION**

**TESTIMONY IN SUPPORT**

Aloha Chair Morita, Vice Chair Coffman and Committee Members:

HB 2541 defines "net zero energy building" as one that consumes zero net energy and produces zero carbon emissions; and gives priority handling and processing for state and county permits for such projects.

Net zero energy buildings are as important to reducing carbon emissions and our use of fossil fuels as are renewable energy projects. They target current and future energy security and carbon-related challenges by engineering out future problems. IN many cases they are less costly than renewable energy projects that achieve the same emissions reduction. Further most rely on existing technologies and can re rapidly deployed. This bill is a no-cost incentive that will increase our energy efficient building stock and achieve a cleaner energy future for Hawaii.

Based on the foregoing, the HSEA strongly supports HB2451 and respectfully urges passage of the bill.

Thank you for the opportunity to testify on this measure.

Mark Duda  
President, Hawaii Solar Energy Association

**About Hawaii Solar Energy Association**

*Hawaii Solar Energy Association (HSEA) is comprised of installers, distributors, manufacturers and financiers of solar energy systems, both hot water and PV, most of which are Hawaii based, owned and operated. Our primary goals are: (1) to further solar energy and related arts, sciences and technologies with concern for the ecologic, social and economic fabric of the area; (2) to encourage the widespread utilization of solar equipment as a means of lowering the cost of energy to the American public, to help stabilize our economy, to develop independence from fossil fuel and thereby reduce carbon emissions that contribute to climate change; (3) to establish, foster and advance the usefulness of the members, and their various products and services related to the economic applications of the conversion of solar energy for various useful purposes; and (4) to cooperate in, and contribute toward, the enhancement of widespread understanding of the various applications of solar energy conversion in order to increase their usefulness to society.*