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# DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT & TOURISM

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Statement of LUIS P. SALAVERIA Director Department of Business, Economic Development, and Tourism before the HOUSE COMMITTEE ON FINANCE

> Friday, February 24, 2017 11:00 a.m. State Capitol, Conference Room 308

### In consideration of BILL NO HB1249, HD2 RELATING TO ENERGY EFFICIENCY.

Chair Luke, Vice Chair Cullen, and members of the Committee.

The Department of Business, Economic Development, and Tourism (DBEDT) opposes HB1249, HD2. Our concern is this effort is an unfunded mandate which requires that DBEDT convene a working group to develop strategies and methods to maximize energy efficiency in residential dwellings and to develop energy disclosure standards for new home sales.

We do not have the resources to staff a working group, nor do we have the expertise to conduct research and analyses require to support the working group. Many of the concerns identified in this bill already are addressed by the statutorily established State Building Code Council (SBCC) so that HD2 would replicate much of the work under the SBCC. The SBCC operates under Chapter 92 and is open the public and accepts comments and recommendations. The SBCC also is composed of representatives such as design professionals, private sector businesses and associations, state and county agency representatives, and county building code officials. Building code updates under the SBCC require much technical review and

LUIS P. SALAVERIA DIRECTOR

MARY ALICE EVANS DEPUTY DIRECTOR discussion before each code is updated. In addition, the SBCC provides annual reports to the legislature.

The concerns noted in the bill, as well as additional measures, have been discussed by the SBCC which has approved the updated 2015 International Energy Conservation Code (IECC 2015). The IECC 2015 addresses residential and commercial buildings and is 30 to 33 percent more efficient than the 2006 International Energy Conservation Code now in effect. The US Department of Energy's Pacific Northwest National Laboratory estimates the cost-effectiveness of the 2015 IECC residential code provisions to have a simple payback of 4.3 years.

Finally, regarding Section 2 of HD2, we recommend that for newly constructed homes the design professional responsible for the design of the residential dwelling, and most familiar with the details of the dwelling, provide an estimated typical monthly operating cost for a family of four. The design professional also should be required to certify the estimated energy use for the new residential dwelling and to use his/her professional stamp on the certification statement.

Thank you for the opportunity to testify.

# TESTIMONY OF RANDY IWASE CHAIR, PUBLIC UTILITIES COMMISSION STATE OF HAWAII TO THE HOUSE COMMITTEE ON FINANCE

# FEBRUARY 24, 2017 11:00 a.m.

### MEASURE: H.B. No. 1249, H.D. 2 TITLE: RELATING TO ENERGY EFFICIENCY

Chair Luke and Members of the Committee:

### **DESCRIPTION:**

This measure requires the Department of Business, Economic Development, and Tourism ("DBEDT") to convene a working group to develop strategies and methods to maximize the energy efficiency of residential dwellings in the State, while also requiring the working group to make recommendations on building and energy codes and standards intended to ensure that new single-family residential construction maximizes cost-effective energy efficiency opportunities, and to present these recommendations to the State Building Code Council. The measure names members of the working group, including the chairperson of the Public Utilities Commission ("Commission").

### **POSITION:**

The Commission opposes this measure as written and offers the following comments for the Committee's consideration.

#### COMMENTS:

The Public Utilities Commission is a regulatory body that is required to act in a quasi-judicial capacity. The possibility exists that in the future the Commission may have to render decisions in matters relating to energy efficiency and energy consumption standards. Accordingly, the Commission feels that it would be inappropriate for its chairperson to be a member of this working group. The Commission recommends that this requirement be stricken from this bill or that the public benefits fee administrator, as established pursuant to HRS 269-122, be named instead.

Thank you for the opportunity to testify on this measure.



Hawaii Energy Policy Forum

Jeanne Schultz Afuvai, Hawaii Inst. for Public Affairs Hajime Alabanza, Hawaii Solar Energy Association John Antonio. US Dept of Agriculture Karlie Asato, Hawaii Government Employees Assn David Bissell, Kauai Island Utility Cooperative Joseph Boivin, Hawaii Gas Warren Bollmeier, Hawaii Renewable Energy Alliance Michael Brittain, IBEW, Local Union 1260 Albert Chee, Chevron Elizabeth Cole, The Kohala Center Kyle Datta, Ulupono Initiative Mitch Ewan, UH Hawaii Natural Energy Institute Jay Fidell, ThinkTech Hawaii Carl Freedman, Haiku Design & Analysis Matthias Fripp, REIS at University of Hawaii Ford Fuchigami, Hawaii Dept of Transportation Justin Gruenstein, City & County of Honolulu Dale Hahn, Ofc of US Senator Brian Schatz Michael Hamnett, SSRI at University of Hawaii Senator Lorraine Inouye, Hawaii State Legislature Randy Iwase, Public Utilities Commission Brian Kealoha, Hawaii Energy Darren Kimura, Energy Industries Kelly King, Sustainable Biodiesel Alliance Kal Kobayashi, Maui County Energy Office Representative Chris Lee, Hawaii State Legislature Gladys Marrone, Building Industry Assn of Hawaii Stephen Meder, UH Facilities and Planning Joshua Michaels, Ofc of US Rep. Colleen Hanabusa Sharon Moriwaki, UH Public Policy Center Ron Nelson, US Pacific Command Energy Office Jeffrey Ono, Division of Consumer Advocacy, DCCA Stan Osserman, HCATT Darren Pai. Hawaiian Electric Companies Melissa Pavlicek, Hawaii Public Policy Advocates Randy Perreira, Hawaii Government Employees Assn Fredrick Redell, Maui County Energy Office Rick Rocheleau, UH Hawaii Natural Energy Institute Will Rolston, Hawaii County, Research & Development Peter Rosegg, Hawaiian Electric Companies **Riley Saito, SunPower Systems** Scott Seu, Hawaiian Electric Companies Joelle Simonpietri, UH Applied Research Lab Ben Sullivan, Kauai County Terry Surles, Hawaii State Energy Office, DBEDT Lance Tanaka, Par Hawaii, Inc. Maria Tome, Public Utilities Commission Kirsten Turner, Ofc of US Representative Tulsi Gabbard Alan Yamamoto, Ofc of US Senator Mazie Hirono

Testimony of Ray Starling Chair, Energy Efficiency Working Group Hawaii Energy Policy Forum

> To the House Committee on Finance

February 24, 2017 at 11:00 am in Conference Room 308

COMMENTS ON HB1249 HD2, Relating to Energy Efficiency

Chair Lee, Vice-Chair Lowen, and Members of the Committee,

I am Ray Starling, Chair of the Energy Efficiency Working Group of the Hawaii Energy Policy Forum (Forum). The Forum, created in 2002, is comprised of over 40 representatives from Hawaii's 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. Our vision and mission, and comprehensive "10 Point Action Plan" serves as a guide to move Hawaii toward its preferred energy goals and our support for this bill.

HB1249 HD2 requires the Department of Business, Economic Development, and Tourism to convene a working group to develop standards for reporting energy consumption to facilitate comparisons of energy consumption and costs by consumers and homebuyers.

The Forum has discussed HB 1249 HD2 and is in full support of the bill's ultimate objective to maximize energy efficiency in residential new construction. As stated in the bill, energy efficiency costs a mere fraction of the cost of energy purchased from the electric grid. However, the Forum is unable to reach a full consensus for or against the bill as currently proposed, so it offers the following comments to help the Committee in its deliberations:

Energy efficiency is the most cost-effective energy resource available in the state, costing a fraction of electricity that is generated, either through renewables or fossil fuels. The creation of a working group to develop strategies and methods to maximize the energy efficiency of residential dwellings in Hawai'i is in alignment with both the 100% clean energy goal for the state and meeting the Energy Efficiency Portfolio Standard that is part of statute.

The terminology used of net zero energy capable design and other references of net zero can be confusing and send the wrong message that the requirements would include the installation of renewable energy generation and/or energy



Hawaii Energy Policy Forum

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storage, which is not the intent of this bill. The committee may want to consider removing all references of this language to gain broader support. Additionally, the State Building Code Council may be a more appropriate to convene the working group as the SBCC ultimately establishes relevant energy codes and standards with broad representation from the State, Counties, and industry.

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



Email: <a href="mailto:communications@ulupono.com">communications@ulupono.com</a>

### HOUSE COMMITTEE ON FINANCE Friday, February 24, 2017 — 11:00 a.m. — Room 308

### Ulupono Initiative Strongly Supports HB 1249 HD 2, Relating to Energy Efficiency

Dear Chair Luke, Vice Chair Cullen, and Members of the Committee:

My name is Murray Clay and I am Managing Partner of the Ulupono Initiative, a Hawai'ibased impact investment firm that strives to improve the quality of life for the people of Hawai'i by working toward solutions that create more locally produced food; increase affordable, clean, renewable energy; and reduce waste. Ulupono believes that selfsufficiency is essential to our future prosperity and will help shape a future where economic progress and mission-focused impact can work hand in hand.

**Ulupono** <u>strongly supports</u> HB 1249 HD 2, which discloses typical monthly operating costs for all new home sales and establishes an energy efficiency working group, because it aligns with our goal of increasing the production of clean, renewable energy in Hawai'i.

For energy efficiency to be successful, we need educated and motivated homeowners to actively practice energy efficiency in their daily purchases and behaviors. By providing new homeowners with expected operational costs from the start, this can help them to think about how best to invest in reducing their energy and water costs for their own economic interest.

It is often helpful for potential homebuyers to have comparable sales prices for similar homes in the neighborhood before making a purchase. Similarly, it could be additionally beneficial to have comparable energy and water costs for similar sized homes in the neighborhood. This would further help the new homeowner understand how their effective they are in managing their costs.

As Hawai'i's energy issues become more complex and challenging, we appreciate this committee's efforts to look at policies that support renewable energy production.

Thank you for this opportunity to testify.

Respectfully,

#### Investing in a Sustainable Hawai'i



Murray Clay Managing Partner

#### **Testimony before the House Finance Committee**

By Michael Colón Director, New Customer Initiatives Hawaiian Electric Company, Inc.

#### Friday, February 24, 11:00 am Agenda #1

#### House Bill 1249 HD 2 – Relating to Energy Efficiency

Chair Luke, Vice Chair Cullen and Members of the Committee:

My name is Michael Colón and I am testifying on behalf of Hawaiian Electric Company and its subsidiary utilities, Maui Electric Company and Hawaii Electric Light Company (collectively, the "Hawaiian Electric Companies").

House Bill 1249 HD 2 seeks to have the Department of Business, Economic Development, and Tourism to convene a working group to develop standards for reporting energy consumption to facilitate comparisons of energy consumption and costs by consumers and home buyers.

As stated in its prior testimony, the Hawaiian Electric Companies see value in establishing a stakeholder group to develop recommendations to improve residential energy efficiency measures. The Companies however, recommend that all references to the term "net zero" and "net zero capable" be removed in the bill. The Companies contend that the notion of mandating zero energy consumption in building design is problematic for many reasons, such as increased costs to homeowners, difficulty in determining energy usage, and problems in achieving sufficient generation at the site to eliminate energy demand. These issues exacerbate utility planning efforts and may undermine the Public Utilities Commission's open dockets on energy planning, efficiency, and distributed generation. Furthermore, "net zero" is a concept focused on benefiting individual customers, whereas the Companies remain committed to reaching the best solutions for all customers and communities.

Aside from this concern in the bill, the Companies reiterate their desire to participate as a member of the working group to provide input and expertise on energy consumption and delivery issues. The recommendations that come from the working group would serve as a strong underpinning to future legislative proposals to improve building code standards.

The Companies are encouraged by an increased interest and effort to improve energy efficiency through various means, and see value in the potential grid benefits that may result from leveraging technologies to not only reduce costs for all customers, but also to provide ancillary grid services through various pricing and incentive mechanisms as they become available. The Public Utilities Commission has several open dockets to help the Companies face the unique challenge of integrating increasing levels of distributed generation on isolated electric systems, and aggregated energy efficiency measures that can support demand response signals from the utility may help to address certain grid stability issues and enable greater adoption of renewables onto the grid. Therefore it is incumbent that the Companies maintain an active role in the development of such standards as they move forward.

The Hawaiian Electric companies are committed to generate or procure 100% of the electricity they provide to customers from renewable energy sources by 2045. The more we can work in sync with our stakeholders, the greater our chance of succeeding as a whole.

Thank you for the opportunity to testify.

1132 Bishop Street, Suite 1800 • Honolulu, Hawai'i 96813 • HawaiiEnergy.com • P: (808) 839-8880 • F: (808) 441-6068

Before the House Committee on Finance Friday, February 24, 2017, 11:00 A.M., Room 308 HB 1249 HD2: Relating to Energy Efficiency

Chair Luke, Vice-Chair Cullen, and members of the committee, thank you for the opportunity to submit testimony on HB 1249 HD2. The Hawai'i Energy program would like to testify in strong **support** for HB 1249 HD2. Energy efficiency is the most cost-effective energy resource available in the state, costing a fraction of electricity that is generated, either through renewables or fossil fuels.

Hawai'i Energy works to empower island families and businesses on behalf of the Hawai'i Public Utilities Commission (PUC) to make smart energy choices to reduce energy consumption, save money, and pursue a 100% clean energy future. In collaboration with the Hawai'i State Energy Office, Hawai'i Energy has strongly supported the State Building Code Council's (SBCC) proposal to amend the state's energy conservation code by: (i) repealing the 2006 International Energy Conservation Code (IECC), Hawai'i Administrative Rules (H.A.R.) Chapter 3-181; and (ii) adopting H.A.R. Chapter 3-181.1, based on the IECC 2015 Edition published by the International Codes Council, with amendments applicable to Hawai'i. We see this bill as an extension of our continued support in improving energy codes.

One sector of our society that uses a lot of energy are homes. Reducing wasteful energy use needs to be prioritized, which HB 1249 HD2 does by maximizing the investment in cost-effective energy efficiency measures and removes the split incentive that often exists between builder/developer and the owner who ultimately must pay the electricity bill.

Hawai'i Energy would also like to offer the following modifications to the bill:

Instead of directing DBEDT to convene the working group, one suggestion would be to have the SBCC convene this group. The State Building Code Council may be a more appropriate to convene the working group as the SBCC ultimately establishes relevant energy codes and standards with broad representation from the State, Counties, and industry. The SBCC is comprised of representatives of the Counties, DBEDT, DLIR, the Building Industry Association, the Subcontractor's Association, the Structural Engineers Association, the American Institute of Architects, the State Fire Council, and the Comptroller.

Secondly, the terminology of "net zero energy capable design" and other references to net zero can be confusing and send the wrong message that the requirements would include the installation of renewable energy generation and/or energy storage, which is not the intent of this bill. The U.S. Department of Energy uses this terminology and is a trend that is occurring nationally, however much of the testimony against prior drafts of this bill has shown either confusion or opposition to this terminology rather than the intent of the bill. The committee may want to consider removing all references of net zero language to gain broader support.

Lastly, we recommend the addition of Hawai'i Energy as the Public Benefits Fee Administrator to be a member of the working group in order to minimize the need for additional State resources. With Hawai'i Energy's charter and involvement, we would be happy to work under the direction of the SBCC to manage the working group. We also suggest the addition of the utilities to the working group.

Thank you for the opportunity to testify on HB 1249 HD2.





#### HOUSE COMMITTEE ON FINANCE

Feb. 24, 2017, 11 A.M. Room 308 (Testimony is 3 pages long)

### **TESTIMONY IN STRONG SUPPORT OF HB 1249 HD 2**

Aloha Chair Luke, Vice Chair Cullen, and Committee Members:

Blue Planet Foundation strongly **supports** this bill, which will convene a working group to develop recommendations on maximizing the use of **cost-effective energy efficiency**, leading to **lower total housing costs** for consumers. The bill will also require that anticipated energy consumption of a home will be disclosed to new buyers.

At the end of this testimony, we suggest amendments to: (i) leverage Hawaii Energy's willingness to use its resources to manage the working group process; and (ii) to use the phrase "maximizing cost-effective energy efficiency" consistently in the bill.

It is important to be clear about what this bill will not do:

- Will not require all new homes to be "net zero energy." The original draft of bill used the phrase "net zero energy *capable*" as a standard for ensuring that new homes are built with as much energy efficiency as is cost-effective for the buyer. This bill does *not* require the installation of solar panels, batteries, or other energy generation equipment.<sup>1</sup> In HD2, the phrase "net zero energy capable" has been removed, in favor of the phrasing "maximizing cost-effective energy efficiency."
- Will *not* drive up housing costs for consumers. When a typical consumer buys a new home, the cost of ownership is the cost of the monthly mortgage payment, plus monthly operating costs like energy bills. By maximizing cost-effective energy efficiency, that total monthly cost of ownership can be lowered from day one. This phenomenon can also help to expand access to reduced living costs, by enabling *all* owners of new homes to finance energy efficiency in their mortgage (rather than paying out of pocket).
- **Will not harm the local workforce**. This bill will *benefit* the local workforce. Building energy efficiency into the standard for new homes essentially converts dollars that would have been spent on energy, into dollars spent on labor and materials for new homes.

<sup>&</sup>lt;sup>1</sup> The phrase "net zero energy capable" is admittedly somewhat confusing. It is intended to indicate that a home has reached the point where adding more energy efficiency would be more expensive than *theoretically* adding electricity generation to a home. Thus, it is a standard based on cost-effectiveness; it is not a standard based on the actual energy generation in a home.

It is well documented that energy efficiency is extraordinarily cost-effective. For example, in its most recent program year, the state's energy efficiency program (Hawaii Energy), administered by the PUC, invested \$36 million to enable \$435 million in savings (12x return) over the life of those upgrades.

Despite this remarkable cost-effectiveness of energy efficiency, it remains cheaper to build efficiency into homes and buildings from the start, rather than to install retrofits. According to a 2012 study completed for the Pacific Gas and Electric Company's Zero Net Energy Program, for residential construction conventional energy efficiency "upgrades to a code-compliant new home (e.g. improved windows and insulation levels; high efficiency space conditioning, water heating, and lighting systems) to achieve about 40% reductions in home thermal and lighting energy consumption will cost roughly \$2 - \$8 per ft<sup>2</sup> of conditioned floor area."<sup>2</sup> Obviously, the cost of construction (excluding land) for a new single-family home is an order of magnitude higher (e.g. \$150 to \$250 per ft<sup>2</sup> or more). In the context of monthly mortgage payments, savings from cost-effective efficiency are expected to far outweigh any additional construction cost.

As an illustration, using the above information, maximizing energy efficiency would mean **annual housing cost savings of \$120 to \$660 per year for each new single-family home**.<sup>3</sup> In other words, consumers can save from their first mortgage payment.

This power of energy efficiency drove California to target zero net energy design for all new residential buildings by 2020, and all new commercial structures (and 50% of existing commercial structures) by 2030. Hawai'i can deliver the same benefits and protections to its consumers with energy and building codes that ensure that new single-family homes maximize the use of cost-effective energy efficiency.

#### SUGGESTED AMENDMENTS

We suggest two improvements to HD2.

First, if DBEDT is concerned about serving as the convener of the working group, the State Building Code Council (SBCC) could serve as the convener. Undoubtedly, the SBCC (which unlike DBEDT, has no full-time staff) will require support to serve that role. Such support could be in the form of funding from the legislature. Alternatively **the state's energy efficiency program (Hawaii Energy, the Public Benefits Fee Administrator) has offered to use its resources to manage the working group process under the direction of the convener**.

<sup>&</sup>lt;sup>2</sup> Davis Energy Group, California Zero Net Energy Buildings Cost Study at 4 (2012), *available at* https://newbuildings.org/sites/default/files/PGE\_CA\_ZNE\_CostStudy\_121912.pdf.

<sup>&</sup>lt;sup>3</sup> These dollar values are derived from the following assumptions: \$2 to \$8 per square foot marginal construction costs to achieve 40% energy efficiency; 1500 square foot home; \$175 per month average energy bill for home without maximum energy efficiency; 4% mortgage interest rate. This would result in monthly energy savings of \$70, and monthly mortgage payments of \$15 to 60 per month.

Second, we suggest one revision to ensure that the bill uses the phrase "maximizing costeffective energy efficiency" consistently.

SECTION 3. . . . For the purposes of this subsection, "maximizing <u>cost-effective</u> energy efficiency" means reaching efficiency levels such that it would generally become more cost-effective to theoretically add generation to the home, rather than further increasing the efficiency of the home.

Thank you for this opportunity to testify.





808-737-4977

February 24, 2017

**The Honorable Sylvia Luke, Chair** House Committee on Finance State Capitol, Room 308 Honolulu, Hawaii 96813

# RE: H.B. 1249, H.D. 2, Relating to Energy Efficiency

# HEARING: Friday, February 24, 2017, at 11:00 a.m.

Aloha Chair Luke, Vice Chair Cullen and Members of the Committee,

I am Myoung Oh, Government Affairs Director, here to testify on behalf of the Hawai'i Association of REALTORS<sup>®</sup> ("HAR"), the voice of real estate in Hawai'i, and its 9,200 members. HAR raises **concerns** on section 2 of House Bill 1249, HD2 which requires the Department of Business and Economic Development and Tourism (DBEDT) to convene a working group to develop standards for reporting energy consumption to facilitate comparisons of energy consumption and costs by consumers and home buyers.

While HAR supports energy-efficient homes, this measure would not assist buyers in making informed decisions based on a guestimate of energy consumption of a home. Individual usage habits, number in a household, seasonal usage and other variables would all affect one's energy operating costs.

Moreover, HAR would note that it is premature to require this provision of disclosure in Section 2 of this measure until after the Working Group conducts and presents its study.

Mahalo for the opportunity to testify.

