

WRITTEN ONLY

TESTIMONY OF CARLITO P. CALIBOSO  
CHAIRMAN, PUBLIC UTILITIES COMMISSION  
DEPARTMENT OF BUDGET AND FINANCE  
STATE OF HAWAII  
TO THE  
HOUSE COMMITTEE ON ENERGY AND ENVIRONMENTAL PROTECTION  
MARCH 16, 2010

MEASURE: S.B. No. 2488 SD2  
TITLE: Relating to Renewable Energy

Chair Morita and Members of the Committee:

**DESCRIPTION:**

This bill would require electric utilities to compensate net metering surplus customer-generators for excess electricity at the end of the twelve-month period; increase the maximum customer-generator capacity to two megawatts; permit existing net-metered customers to remain with the net metering program regardless of available alternatives; increase the total allowable generating capacity produced by customer-generators to 15% of that distribution feeder's penetration level or the penetration level that triggers additional technical study, as determined by the Public Utilities Commission ("Commission"), whichever is higher; allow a customer-generator up to five hundred kilowatts before the Commission approval for safety and performance standards is required; and direct the Commission to determine the net surplus compensation rate.

**POSITION:**

The Commission believes that this bill is unnecessary as the Commission is already undergoing a detailed analysis of the issues involved in Net Energy Metering ("NEM") and related matters, and provides the following comments.

**COMMENTS:**

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- On March 13, 2008, pursuant to the authority granted in §269-101.5, HRS, in Docket 2006-0084, the Commission approved, by order, an increase of the maximum size of a customer-generator from 50 to 100 kilowatts, and an increase in the system cap from 0.5% to 1.0% of system peak demand. The individual customer-generator size limit remained 50 kilowatts at Kauai Island Utility Cooperative.
- On December 26, 2008, the Commission, by order, increased the system caps for MECO and HELCO to 3.0% of system peak demand, and allowed for a further increase to 4.0 % when approved net-metering applications

approach the 3.0% cap. It has not yet been necessary to increase the system cap for HECO.

- On January 7, 2010, the parties in Docket 2006-0084 presented a stipulation to move toward a 15% circuit-based threshold in which further integration studies would be required before allowing additional generation once the threshold is reached. The threshold would not operate as a cap per se, but would also take under consideration other distributed resources that fall under other programs, such as Feed-In Tariffs ("FITs"). The stipulation also proposes to remove the NEM system caps, with the adoption of the circuit-based threshold and applicable reliability standards. Note that the proposal in this bill is to establish a 15% circuit cap on NEM, where such a strict cap is not proposed to the Commission in Docket 2006-0084.
- To co-exist on an integrated system with other system resources, the multiple programs must follow a consistent set of measures for monitoring, performance and assessment in order to determine overall system-wide impacts and to successfully move away from discrete program caps. The Commission's investigations include the review of such an integrated system.
- Thus, the Commission is already undergoing detailed analysis of these issues, while the proposal in this bill seeks to make decisions on these issues without a full and complete record. While the proposals in this bill are likely well intentioned, it may be counter-productive because it would undermine all of the work and analysis that the parties to the Commission dockets and the Commission have already undertaken.
- The compensation for producing surplus energy portions of the bill may help to incentivize and produce more renewable energy generation through NEM. However, the Committee should also be aware that it may result in additional out-of-pocket costs to pay for these credits, which will be passed on to other ratepayers, as well as additional administrative costs for the utilities to administer and issue payments to surplus net-metered customer-generators.
- The cost of raising the individual customer-generator size limit to two megawatts will be borne by ratepayers since net-metering credits at the retail rate.

- The Commission had envisioned the FITs would provide a mechanism for larger generators to be fairly compensated (a return of their money invested and a reasonable profit) for the energy they provide to the grid.
- Additionally, the FITs will not preclude net-metering, but will provide another option to eligible customer-generators.

Thank you for the opportunity to testify.



# Sierra Club Hawai'i Chapter

PO Box 2577, Honolulu, HI 96803  
808.538.6616 hawaii.chapter@sierraclub.org

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Date 3/15

Time 2:09

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HOUSE COMMITTEE ON ENERGY & ENVIRONMENTAL PROTECTION Type 1  2 WI

March 15, 2010, 10:00 A.M.  
(Testimony is 1 page long)

## TESTIMONY IN SUPPORT OF SB 2488 (SD2) WITH A PROPOSED AMENDMENT

Aloha Chair Morita and Members of the Committee:

The Hawai'i Chapter of the Sierra Club supports SB 2488, which would expand the allowable system size for net metered systems, increase the total clean energy penetration limit, allow solar energy credits to be valued beyond the current one-year cycle, and direct the public utilities commission to adopt best practice interconnection standards for solar and other clean energy systems.

This bill fairly compensates residents producing clean electricity and furthers a successful policy to encourage development of distributed, renewable energy. We note several other states have similar measures: Arizona; Georgia; Idaho; Iowa; Massachusetts; Minnesota; New Jersey; North Dakota; Texas; Wisconsin; and Wyoming.<sup>1</sup> Residents should not be asked to simply "give away" the energy they provide to the utility, no more than the utility would consider "giving away" its electricity for free.

In order to give the Public Utilities Commission direction, we suggest an amendment stating that: "It shall be the public policy of the State of Hawai'i to encourage the development of distributed renewable energy and the net surplus electricity compensation rate shall be set accordingly."

Please move this measure forward. Thank you for the opportunity to testify.

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<sup>1</sup> Thomas J. Starrs (September 1996). Net Metering: New Opportunities for Home Power. Renewable Energy Policy Project, Issue Brief, No. 2. College Park, MD: University of Maryland.

**HAWAII RENEWABLE ENERGY ALLIANCE**

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

**SB 2488 SD2, RELATING TO RENEWABLE ENERGY**

March 15, 2010

**Officers**

President  
Warren S. Bollmeier II

Vice-President  
John Crouch

**Directors**

Warren S. Bollmeier II  
WSB-Hawaii

Cully Judd  
Inter Island Solar Supply

John Crouch  
Solar Power Systems  
International

Herbert M. (Monty) Richards  
Kahua Ranch Ltd.

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 purposes of SB 2488 SD2 are to: (i) require electric utilities to compensate net metering surplus customer-generators for excess electricity at the end of the twelve-month period; (ii) increase customer-generator capacity to two megawatts; (iii) permit existing net-metered customers to remain with the net metering program regardless of available alternatives; (iv) increase the total allowable generating capacity produced by customer-generators to 15% of that distribution feeder's penetration level or the penetration level that triggers additional technical study, as determined by the PUC, whichever is higher; (v) increases the maximum number of kilowatts a customer-generator system may have before public utilities commission approval for safety and performance standards is required;; and (vi) direct the PUC to determine the net surplus compensation rate.

HREA supports this measure for the following reasons:

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1. Net metering is a very good policy that supports our overall state energy goals, and it is working. So let's keep it working.
2. This measure will strengthen net metering and ensure that it remains an option for customer-generators, including a provision to pay for excess delivery of electricity to the utility over an annual period. Note: other states allow such payments.
3. HREA notes that the measure would "memorialize" one aspect of the HCEI agreement, i.e., that net metering projects should NOT be limited to a specified percentage of island grid capacity, but be subject only to circuit penetration limits. These limits would start at 15%, meaning that DG would be limited in capacity to 15% of the maximum load on individual circuits.

Thank you for this opportunity to testify.



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

Bill No. SB 2488

Date 3/15

Time 2339

March 16, 2010  
10:00AM

House  
**COMITTEE ON ENERGY AND  
ENVIRONMENTAL PROTECTION**

Mark Duda <sup>Cat</sup> AF AS AX <sup>(B)</sup>  
President  
Type 1 <sup>(2)</sup> WI

**SB 2488 SD2**

**TESTIMONY IN SUPPORT**

Aloha Chair Morita, Vice Chair Coffman, and Members of the Committee:

HSEA supports this measure, which seeks to compensate generators of excess energy under NEM contracts at the Feed-in Tariff (FIT) rates, raise the current artificial limit on system sizes for net metered systems to 2 MW, places net metered systems under the interconnection rules established for other types of distributed generation (Rule 14H), and prevents net metered customers from having their contracts changed against their will. Each of these changes advances the cause of renewable energy in the State of Hawaii and in doing so will continue the economic growth and job creation associated with the solar industry.

The homeowners and business owners of Hawaii will benefit from this measure because it further expands customer options in the marketplace for solar energy. It does so by minimizing obstructions in the current law that serve to reduce the size of systems installed and/or prevent customers from investing in systems in the first place. Hawaii has world-class solar resources and this measure will allow its citizens to exploit these resources to produce clean renewable energy that does not rely on imported fuels.

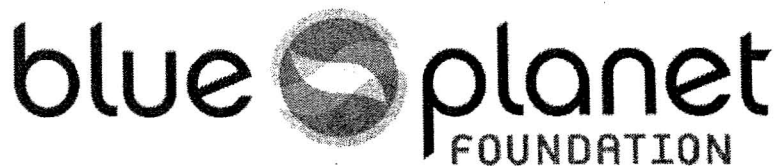
Thank you for the opportunity to testify on this measure.

Mark Duda  
President, Hawaii Solar Energy Association

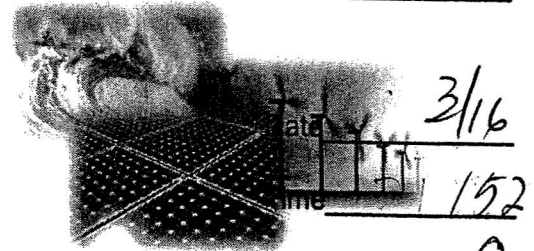
**About Hawaii Solar Energy Association**

*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.*



Bill No. SB 2488



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**HOUSE COMMITTEE ON ENERGY & ENVIRONMENTAL PROTECTION**

March 16, 2010, 10:00 A.M.

Room 325

**(Testimony is 2 pages long)**

**TESTIMONY IN SUPPORT OF SB 2488 SD2**

Chair Morita and members of the Committee:

The Blue Planet Foundation supports Senate Bill 2488 SD2, a measure that wisely expands one of Hawaii's most effective policies at increasing distributed clean energy resources. This bill will expand the allowable system size for net metered systems, increase the total clean energy penetration limit, allow solar energy credits to be valued beyond the current one-year cycle, and direct the public utilities commission to adopt best practice interconnection standards for solar and other clean energy systems. This measure will encourage further investment in customer-sited clean energy systems statewide, further reducing Hawaii's dependence on fossil fuel and moving toward energy independence.

After wisely being passed in 2001, net energy metering slowly began with a handful of renewable energy generators. As more homeowners learn about the program and its impacts on the payback period for renewable energy devices, the subscription rate has dramatically increased. In fact, we may be nearing a "tipping point" where many residential customers invest in renewable energy devices because of their relative cost and environmental advantages.

Senate Bill 2488 SD2 picks up where prior legislation left off—expanding the allowable system size, reducing grid connection limitations, and allowing net metered customers to be compensated for excess energy credits at the end of a billing cycle, among other improvements.



The feed-in tariff docket pending before the public utilities commission (Blue Planet is an intervenor in the docket) has examined many of the issues that prevented larger system sizes and increased grid penetration caps previously. Many of the previous hurdles were simply political or protectionist. This measure will force a more proactive approach to implementing a 21<sup>st</sup> century power grid that Hawai'i requires to meet its aggressive clean energy goals.

This measure will help enable residents and businesses statewide to turn their rooftops into power plants. The potential benefit of this measure to potential photovoltaic (PV) investors is significant. Customers will no longer be left with the choice of investing in only a portion of their roof for a 100 kW PV system and offsetting a small portion of their bill. Instead they can help Hawaii achieve its clean energy future by investing in a system that is sized to their power consumption and provides additional power to the grid.

Thank you for the opportunity to testify.

**Testimony before the  
House Committee on  
Energy & Environmental Protection**

**S.B. 2488 S.D. 2 -- Relating to Renewable Energy**

**Tuesday, March 16, 2010  
10:00 am, Conference Room 325**

**By Arthur Seki  
Director, Renewable Technology  
Hawaiian Electric Company, Inc.**

Chair Morita, Vice-Chair Coffman and Members of the Committee:

My name is Arthur Seki. I am the Director of Renewable Technology for Hawaiian Electric Company. I am testifying on behalf of Hawaiian Electric Company (HECO) and its subsidiary utilities, Maui Electric Company (MECO) and Hawaii Electric Light Company (HELCO).

We recognize the Legislature's strong interest in seeing more renewable energy development in the State and are committed not only to supporting renewable energy development but also to conservation and energy efficiency practices to reduce the State's dependence on imported oil. We have testified in previous legislative sessions in support of several Net Energy Metering (NEM) measures, including the Act which enacted the NEM law.

We do not, however, support S.B. 2488 S.D. 2. The Public Utilities Commission (PUC) can currently make modifications to the NEM tariff by rule or order, so this bill is unnecessary. The PUC has already shown its ability to make such modifications to the NEM tariff when it approved the following changes to NEM in 2008 (Docket No. 2006-0084):

- Increased the maximum size of the eligible customer-generator that can qualify for a NEM agreement from 50 kW to 100 kW;

- Increased the total rated generating capacity produced by eligible customer-generators from 0.5% to 1.0% of the utility's system peak demand;
- Reserved 40%, 50%, and 50% of the total rated generating capacity produced by eligible customer-generators for HECO, HELCO, and MECO, respectively, for residential and smaller commercial NEM customers (system sizes of 10 kW or less);
- Utilized the Integrated Resource Planning (IRP) process to evaluate impact to the utilities' systems and determine further adjustments to the NEM system size and cap limits (limits are re-examined on an annual basis).

With the tremendous growth in NEM activity over the years, the PUC also approved increases to the total NEM program size for HELCO and MECO, allowing NEM to go to 3.0% of these utilities' system peak demand, and once this level is achieved, to go to 4%. We plan to work aggressively with representatives of the solar industry to see that this growth in the program can be accommodated without undue impacts on grid reliability.

Along those lines, as part of the PUC Feed-in Tariff Reliability Standards activities, HECO filed a proposed conceptual framework for the formation of a reliability standards working group (February 26, 2010) to address integration and reliability issues of intermittent renewable systems on the distribution circuits as well as transmission and system operations impacts that have been raised by the neighbor island utilities. The group will be comprised of solar developers, national laboratory and university researchers and other representatives. The objectives of this working group are to assess and evaluate the preliminary technical findings, commission studies for near-term, mid-term and long-term mitigation solutions, and provide a technical and policy solutions roadmap and recommendations. We want this process to be transparent to all parties as we work towards understanding and developing mitigation actions. HECO has met with some solar developers to discuss how some of these activities can be initiated sooner.

We strongly support the continued role of the PUC and the regulatory review process to examine these program design details. This is especially important given the complexity of the technical, cost, and regulatory policy issues associated with net metering and other renewable energy development mechanisms administered by the PUC.

Thus since the PUC can currently make modifications to the NEM tariff, by rule or order, and has done so in recent dockets or proceedings, we ask that you hold this bill.

Thank you for the opportunity to testify.