



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

NEIL ABERCROMBIE
GOVERNOR

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DIRECTOR

MARY ALICE EVANS
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Statement of
RICHARD C. LIM
Director
Department of Business, Economic Development, and Tourism
before the
HOUSE COMMITTEE ON FINANCE

Monday, April 1, 2013
2:00 p.m.
State Capitol, Conference Room 308

in consideration of

SB 623, SD2, HD2
RELATING TO RENEWABLE ENERGY.

Chair Luke, Vice Chairs Nishimoto and Johanson, and Members of the Committee.

The Department of Business, Economic Development & Tourism (DBEDT) supports SB 623, SD2, HD2 to create an appropriate legislative solution regarding the renewable energy income tax credit to provide a predictable investment stimulus for renewable energy deployment.

Continuing to support clean energy development is critical to Hawaii's economy: a prime example is that, in 2012, 26 percent of all construction-related spending was attributed to the solar industry; in a time of declining construction spending, solar construction has helped provide welcomed relief to Hawaii's construction industry.

DBEDT recognizes that the framework proposed in SB 623, SD2, HD2 will bring clarity and ease of administration of the credit; and reducing the level of incentive in a predictable and transparent manner will provide support for continued clean energy development. We respectfully defer to the Department of Budget and Finance on budgetary impacts to ensure a fiscally responsible solution.

DBEDT offers a proposed amendment on the reporting required of the Department. Because data is unavailable, DBEDT would propose to delete Section 1, (o)(3)(A)(ii).

Thank you for the opportunity to offer testimony in support of SB 623, SD2, HD2.

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SUBJECT: INCOME, Renewable energy technology tax credit

BILL NUMBER: SB 623, HD-2

INTRODUCED BY: House Committee on Consumer Protection and Commerce

BRIEF SUMMARY: Amends HRS section 235-12.5 to provide that a solar energy property that is used to heat water shall be eligible for a tax credit of 35% of the basis and shall not exceed: (1) \$_____ per property for single-family residential property; (2) \$_____ per unit per property for multi-family residential property; and (3) \$_____ per property for commercial property.

A solar energy property that is used primarily to generate electricity, is less than one megawatt in alternating current capacity and not part of a larger solar energy property shall be eligible for a tax credit of: (1) ___% of the basis for solar energy property placed in service after December 31, 2012 and before January 1, 2014; (2) ___% of the basis for solar energy property placed in service after December 31, 2013 and before January 1, 2016; (3) ___% of the basis for solar energy property placed in service after December 31, 2015 and before January 1, 2018; and (4) ___% of the basis for solar energy property placed in service after December 31, 2017.

A solar energy property that is used primarily to generate electricity that is greater than one megawatt in alternating current capacity shall be eligible for a tax credit of: (1) ___ cents per kilowatt-hour sold for the first 120 months of operation; or (2) ___ cents per kilowatt-hour sold for the first 120 months of operation if the taxpayer can show evidence that the taxpayer has a signed power purchase agreement, had been in negotiations with a utility for a power purchase agreement, has a utility conducting an interconnection requirement study, or is in the feed-in tariff active queue on or before December 31, 2013. The amount of a tax credit shall not exceed \$_____.

A wind energy property that is less than one megawatt in output and is not part of a larger wind energy property shall be eligible for a tax credit of 20% of the basis or \$_____, whichever is less.

Defines "basis" as costs related to the energy property, including accessories, energy storage, and installation, not including the cost of consumer incentive premiums unrelated to the operation of the energy property or offered with the sale of the energy property and costs for which another credit is claimed under this chapter. Any cost incurred and paid for the repair, construction, or reconstruction of a structure in conjunction with the installation and placing in service of solar or wind energy property shall not constitute a part of the basis for the purpose of this section. The basis used under this part shall be consistent with the use of basis in section 25D or section 48 of the Internal Revenue Code. For the purposes of calculating the credit allowed under this chapter, the basis of the solar energy property or the wind energy property shall not be reduced by the amount of any federal tax credit or other federally subsidized energy financing received by the taxpayer.

Defines “placed in service,” “property” and “public sector agency” for purposes of the measure. For a solar energy property that is used primarily to generate electricity that is greater than one megawatt in alternating current capacity, if the tax credit exceeds a taxpayer’s tax liability, the excess of the credit amount over payments due shall be refunded to the taxpayer. Tax credit amounts properly claimed by a taxpayer who has no income liability shall be paid to the taxpayer provided that no refund on account of the tax credit allowed by this section shall be made for less than \$1.

In lieu of the credits described above, an individual or corporate taxpayer not currently regulated by the public utilities commission that had by December 31, 2012 entered into an agreement with a public sector agency pursuant to a public solicitation and procurement process for the sale of electrical energy from non-residential solar energy property with less than one megawatt of alternating current capacity may elect to receive tax credits for energy properties placed into service prior to January 1, 2014, on the same basis as if the energy property had been placed into service prior to January 1, 2013; provided that the taxpayer provide a copy of the agreement to the department of taxation.

Permits an association of apartment owners to claim the credit in its own name for property or facilities placed in service and located on common areas.

The credit may not be claimed by any federal, state, or local government or any political subdivision, agency, or instrumentality thereof.

Requires the department of taxation and the department of business, economic development, and tourism (DBEDT) to collaborate to issue a joint report to the legislature prior to each regular session. Delineates what shall be included in the report.

Requires DBEDT to commence a study by July 1, 2016 on the costs incurred and benefits gained, as well as the extent to which the tax credits under HRS section 235-12.5 have helped the state achieve its energy goals. DBEDT shall consult with the department of taxation and industry trade groups and may consult with other stakeholders and shall submit a report to the legislature by December 31, 2017 which shall include the results of its study and recommendations on whether the various tax credits under HRS section 235-12.5 should be continued, eliminated, or revised.

EFFECTIVE DATE: July 1, 2050; applicable to tax years beginning after December 31, 2012

STAFF COMMENTS: The existing renewable energy technologies income tax credit is 35% for solar energy systems or 20% for wind energy systems with dollar limits on the amount of credit that may be claimed depending on whether the system is used to heat water or generate electricity and whether the system is installed on a single or multi-family residential property or commercial property.

This measure reduces the amount of credit for solar energy property that produces less than 1 megawatt of electricity from 35% to ___% for systems placed in service for the 2013 tax year; ___% for the 2014-2015 tax year; ___% for the 2016-2017 tax year, and ___% for the 2018 tax year and thereafter. This measure would also extend the renewable energy technology tax credit to solar energy properties that generate over 1 megawatt of electricity at the rate of ___ cents per kilowatt hour for the first 120 months of operation. Although this slow weaning of the taxpaying public from its dependence on the tax incentives may sound like a great idea, it ignores the phenomenon that occurred this past year when taxpayers were given notice that there would be new rules for the ball game beginning with the first of the year. Instead, consideration should be given to setting the tax incentive rate at a more modest level

and then warning taxpayers that it will disappear in three or five years. This will help to even out the demand for installations as taxpayers assess the cost benefit of installing such devices.

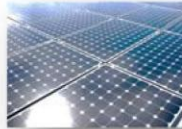
While it appears that this measure is proposed to reduce the outflow of tax credits due to the misinterpretation of the existing tax credit provisions, it is questionable why the proposed measure expands the renewable energy technologies income tax credits to include larger solar energy facilities.

While some may consider an incentive necessary to encourage the use of alternate energy devices, it should be noted that the high cost of these energy systems limits the benefits to those who have the initial capital to make the purchase. If it is the intent of the legislature to encourage a greater use of renewable energy systems by increasing and expanding the existing system of energy tax credits, as an alternative, consideration should be given to a program of low-interest loans. 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 project would be granted a double subsidy by the taxpayers of the state. Such low-interest loans that 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. A program of low or no-interest loans would do much more to increase the acquisition of these devices. It should be noted that the state is again attempting to establish such a loan program. There is no doubt that such a loan program would not only make the devices available to those who cannot afford the up-front costs, but also be far less expensive than the current system of tax credits. It would also allow a more close monitoring of the quality and efficiency as well as the actual costs of such devices, which, because of the current system of tax credits, may be wildly over-inflated.

Instead of providing tax incentives for the purchase of existing technology, lawmakers may want to take advantage of Hawaii's natural environment which lends itself to all sorts of possibilities to explore and develop more efficient means of harnessing the natural resources that pervade the Islands, from wind to sun to geothermal to hydrogen from Hawaii's vast resources, all of which could be further developed with the assistance and cooperation of government in Hawaii.

Finally, the current statute providing these tax incentives for renewable energy technologies reflects the lack of due diligence and good hard research on the part of lawmakers. Apparently the caps imposed on the tax incentive for the solar electric generating systems are far from being realistic. For example, the \$5,000 cap for residential installations translates into about \$15,000 of "actual cost." Anything greater than that amount would exceed the cap of the 35% tax credit. On the commercial side, the half million-dollar cap may be insufficient for a commercial building to generate a net-zero status that would avoid a stand-by charge by the local electric company. Those stand-by charges have been reported to sometimes exceed the bills had the building owner not installed such solar electric generating systems. Thus, the law, as currently written, does not take into account these resulting contradictions.

While this and other measures demand serious consideration in order to stem the abuse of the current tax credit provisions, lawmakers and staff need to spend time during the interim researching and honing the tax incentive to be a more reasonable incentive that is forged in a good understanding of the developing technology. What is currently on the books reflects a technology long deemed archaic and, therefore, the tax incentive is less than efficient. To the extent that the current credit as well as those provided since 1976 have subsidized the purchase of such devices, one has to wonder just how much these credits inflated the cost of these devices over the years allowing installers to use the credits as part of their sales pitch as a "discount" when in fact the net cost of the device was the true cost of purchase and installation. To the extent that these tax credits are an expenditure of taxpayer dollars, the cost of paying for government operations is shifted from those who took advantage of the incentive to those who could not acquire the device and ended up paying not only their share of government but those of taxpayers who got the credit as well as those business who provided the devices.



HOUSE COMMITTEE ON FINANCE

April 1, 2013, 2:00 P.M.

Room 308

(Testimony is 3 pages long)

TESTIMONY IN SUPPORT OF SB 623 SD2 HD2, SUGGESTED AMENDMENTS

Chair Luke, Vice Chairs Nishimoto and Johanson, and members of the Finance Committee:

The Blue Planet Foundation supports the intent of SB 623 SD2 HD2, a measure which seeks to make necessary amendments to Hawaii's highly successful clean energy tax credit incentive. This measure needs substantial amendments to make it an effective policy.

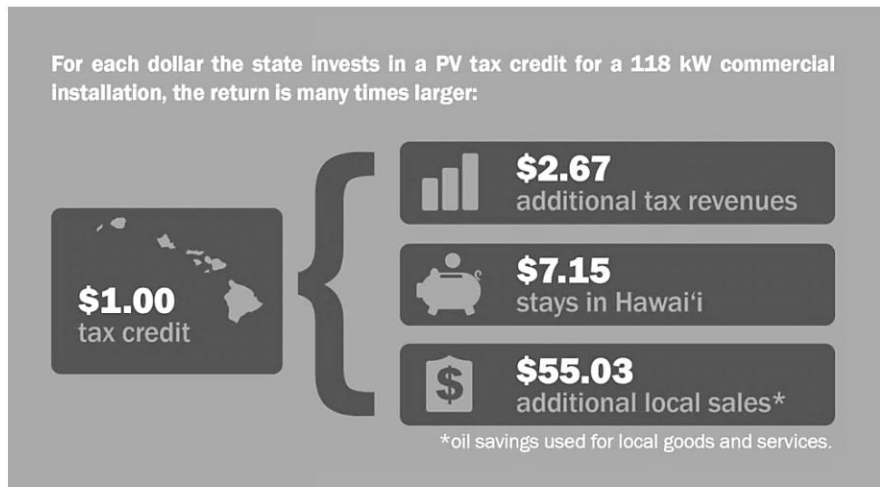
Solar energy is currently a bright spot in Hawaii's progress toward energy independence, and the solar tax credit has been extremely effective at making Hawai'i a leader in solar installations—creating local jobs and providing steady revenue from its business creation. Moreover, the installation of solar water heaters, photovoltaic systems, and wind systems helps to plug the leak of billions of dollars out of the islands' economy. Further, investments in this technology—and the companies and jobs that provide it—pays dividends back to the state in the form of income tax, general excise tax, and outside investment—among other forms.

Senate Bill 623 SD2 HD2 contains a number of elements which make it an attractive policy—for the state economy, the solar sector, and for achievement of Hawaii's aggressive clean energy goals. First, the measure follows the framework and definitions of the federal tax credit law, making it easier for the state to administer. Second, the proposed policy (with percentages similar to HB 497 HD3) ratchets down the state renewable energy tax credit for photovoltaic in a fair and predictable manner, reducing job-jeopardizing volatility in the solar sector.

Further, Blue Planet strongly supports a Production Tax Credit (PTC) for both utility-scale solar projects and smaller projects (if the small project owner prefers that use that incentive over the investment tax credit). A PTC would encourage the most efficient renewable energy installations while spreading out the cost of the credit over a longer period (likely 10-years).

Blue Planet has released a report in January, 2013, detailing the economic impacts of Hawai'i's renewable energy tax credit. The analysis, conducted by former University of Hawai'i economist Dr. Thomas Loudat is updated from last spring, peer-reviewed, and includes demographic

information from building permits for O'ahu photovoltaic installations over the past 12 years. (Dr. Loudat's earlier analysis of renewable energy tax credits was presented in a report to the state legislature in 2002.)



The findings show that the existing tax incentive yields a clear, significant net fiscal benefit to the state. Every commercial PV tax credit dollar invested yields \$7.15 that stays in Hawai'i and \$55.03 in additional sales, which generates \$2.67 in new tax revenue. For a typical 118 kW commercial PV

installation, the state gains 2.7 local jobs each year over the 30-year lifetime of the system.

According to the state Department of Business, Economic Development, and Tourism (DBEDT), solar accounts for 15% of all construction expenditures in Hawai'i. The solar industry employs more than 2,000 people locally.

Any stimulation in solar installations also brings federal dollars (from the 30% federal renewable energy tax credit) into our local economy. These dollars have a full multiplier effect equivalent to tourist dollars coming to Hawai'i.

Blue Planet's analysis shows that the use of solar is increasing more rapidly in less wealthy neighborhoods. An examination of O'ahu residential PV permits from the past decade indicates that while overall number of installations are located in zip codes that have higher median incomes, the rate at which PV installations occurred in 2012 versus 2002-2011 was significantly higher in lower median income areas. For example, Wai'anae (with a median household income of \$55,836) saw a 300% increase in PV permits in 2012 compared with the previous decade combined (173 total permits between 2002 and 2011; 521 permits in 2012 alone). Hawai'i's solar tax credit—coupled with new third party-owned PV programs—have enabled a broadening range of O'ahu homeowners to escape the burden of high energy costs and benefit from a clean energy solution.

PROPOSED AMENDMENT

Blue Planet requests that SB 623 SD2 HD2 be amended with appropriate tax credit percentages. We recommend that the Committee re-insert the percentages and cap amounts contained in HB 497 HD3, which closely track the percentages and cap amounts contained in prior versions of SB 623.

Specifically, we recommend the following numbers be used:

- For section (a)(1), solar thermal tax credit caps in the amounts of:
 - **\$2,500** per property for single-family residential property;
 - **\$500** per unit per property for multi-family residential property;
 - **\$250,000** per property for commercial property
- For section (a)(2), solar tax credit percentages in the amounts of:
 - **30%** for property placed in service after December 31, 2012 and before January 1, 2014;
 - **25%** for property placed in service after December 31, 2013 and before January 1, 2016;
 - **20%** for property placed in service after December 31, 2015 and before January 1, 2018;
 - **15%** for property placed in service after December 31, 2017.
- For section (a)(3), production tax credit amounts of:
 - **8 cents/kWh** for solar energy property installed and placed in service on or before December 21, 2016;
 - **6 cents/kWh** for solar energy property installed and placed in service on or before December 31, 2020;
 - **4 cents/kWh** for solar energy property installed and placed in service after December 31, 2020.
- For section (a)(4), a cap on the utility-scale wind energy credit of **\$500,000**.

Hawai'i's renewable energy tax credit is a catalyst in driving positive economic growth through solar. When we shift our energy dollars away from foreign oil and to local clean energy sources, those dollars circulate in Hawai'i's economy to the benefit of everyone. Ultimately, the tax credit is a smart investment in a better, cleaner tomorrow, a future we value beyond dollars and cents.

Please forward an amended SB 623 SD2 HD2.

Thank you for this opportunity to testify.



Hawaii Solar Energy Association
Serving Hawaii Since 1977

Before the House Committee on Finance
Monday, April 1, 2013, 2 p.m., room 308
SB 623 SD 2 HD 2: RELATING TO RENEWABLE ENERGY

Aloha Chair Luke, Vice-Chairs Nishimoto and Johanson, and members of the House Committee on Finance,

On behalf of the Hawaii Solar Energy Association (HSEA), I would like to testify **in support of SB 623 SD 2 HD 2**, which calls for a gradual ramp down of credits on photovoltaic (PV) installs on homes and small businesses under 1 MW (ITC), and for a production tax credit (PTC) for PV projects of 1 MW or more. SB 623 SD 2 HD 2 also holds steady the credit for solar hot water, and requires DBEDT and the Department of Taxation to report on both the costs and benefits of the renewable energy tax credit 20 days before each legislative session.

This legislation is key to continuing to progress towards our clean energy goals, and for keeping solar affordable for Hawaii's homes and businesses. Should reform of the current tax credit statute not pass this legislative session, Hawaii's tax credit statute will be back to the status quo with the flawed law and temporary administrative rules that only half-address the loopholes in the current law. The status quo simply should not stand, and HSEA wants to do all it can to support legislation that will create clear, transparent, and fair tax incentives that benefit all parties.

HSEA **supports SB 623 SD 2 HD 2** and respectfully suggests the following amendments to fine-tune the new tax credit framework.

1. Ramp down PV gradually

Although a ramp down of the ITC will slow the speed and scale of installations for Hawaiian homes and businesses, HSEA has conceded to a gradual ramp down in the spirit of compromise, and as an acknowledgment of perceived budgetary shortfalls. However, to maintain a sustainable energy economy and to keep solar affordable for Hawaii's taxpayers, HSEA requests that the reduction in the credit be gradual. The solar industry comprises 26% of the State's entire construction income, and business would slow accordingly should the change in credits be too severe. In addition, home owners and businesses who wish to take charge of their electric bills may be priced out of the market should the increased costs be too abrupt.

2. Stop ramp down at 20% for ITC and increase the incentive to 35% should the Federal credit not be renewed

History has shown that once incentives drop below 50%, participation abruptly drops off. For instance, data tracking the installation of solar hot water and corresponding incentive levels

shows a clear and predictable correlation between credit levels and the number of installations. In 1985 when President Regan eliminated the federal tax credit, solar hot water installations in Hawaii dropped from 6,740 to 592 over one year, a 93% drop. Given the direct correlation of incentive levels to consumer behavior, HSEA asks that the incentive level not drop below 20%, and that the State plan to increase the incentive to 35% should the current federal credit of 30% not be extended. In addition, with regards to the cap on solar hot water, HSEA recommends a cap of \$2,500, an increase of \$250 to reflect increased costs since the cap was last adjusted in 2009.

HSEA therefore requests that the credit be applied for PV under 1 MW as follows:

HRS 243-12.5

(2) For solar energy property that is used primarily to generate electricity, is less than one megawatt in generating capacity. .

(A) 30% of the basis for the solar energy property first placed in service after July 1, 2013 and before January 1, 2014.

(B) 25% of the basis of the solar energy property first placed in service after December 31, 2013, and before January 1, 2016; and

(C) 20% of the basis for the solar energy property first placed in service after December 31, 2016; however, should the Federal tax incentive of 30% expire on December 31, 2016 and not be renewed, the tax credit shall increase to 35% of the basis for solar energy property first placed in service after December 31, 2016.

3. Chose a PTC that will support continued utility scale development

HSEA supports residential, commercial, and utility scale projects, and fully recognizes the importance of having a wide variety of energy strategies, including utility scale PV which has the potential of significantly adding to our green energy infrastructure. The challenge here is in assigning a PTC that will support utility scale projects, but not at the detriment of residential or small commercial installations, or the overall allocation for PV in the energy budget.

As such, several factors must be considered when choosing an effective PTC. Cost of installation, solar access, discount rate and varying technology types and performance all play into the fair cost and reasonable incentive that will encourage utility scale projects most suited for Hawaii. Also, utility scale projects benefit from being able to deduct depreciation and other expenses incurred from large scale installations, an enormous boon which home owners are not able to enjoy. Given these various factors and considering the data HSEA has currently reviewed, we suggest a PTC in the range of 6 to 4 cents/kWh, with special consideration given to projects that already have commitments in place and financing secured.

4. Apply the discount for the refundable credit to both ITC and PTC

HSEA also respectfully recommends that a discount on the refundable credit be equally applied to both ITC and PTC projects. Allowing a refundable credit without discount for PTC gives an unwarranted advantage to PTC, and further encourages a framework that will send Hawaii dollars out of state. By applying the 30% discount to both ITC and PTC, the tax credit is applied more fairly, and companies which benefit from the PTC would be encouraged to hire local contractors and incur local tax liability.

Thank you for the opportunity to testify.

Leslie Cole-Brooks
Executive Director
Hawaii Solar Energy Association

AET, LLC
Alternate Energy
Bonterra Solar
C & J Solar Solutions
Conergy
Energy Industries
Dependable Hawaii Express
Ferguson
Giant Solar
Hawaii Energy Connection
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Hoku Scientific
Island Pacific Energy
Ku'oko'a
Maui Pacific Solar
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SolarCity
Sun King
SunHedge
Unirac



Testimony Before the House Committee on
Finance

By: Michael V. Yamane, P.E.
Chief of Operations
Kauai Island Utility Cooperative
4463 Pahee Street, Suite 1, Lihue, Hawaii, 96766-2000

Monday, April 1st, 2013, 2:00pm
Conference Room # 308

Senate Bill No. 623, SD2 HD2 – Relating to Renewable Energy

To the Honorable Sylvia Luke, Chair; Scott Y. Nishimoto, Vice-Chair, Aaron Ling Johanson, Vice Chair, and members of the Committee:

Kauai Island Utility Cooperative (“KIUC”) supports the intent of Senate Bill 623, SD2 HD2 and would like to provide amendments to proposed draft that would support KIUC’s efforts in renewable energy.

This section as currently written would not allow KIUC and its subsidiaries to qualify for the tax credits. We ask that you consider the proposed revisions to that would allow KIUC to utilize the State Tax credits.

3) For each solar energy property that is used to generate electricity, has not already received

a tax credit under paragraph (2), and is one megawatt or larger in alternating current capacity and that is placed in service:

(A) On or before December 31, 2016, _____ cents multiplied by the number of kilowatt-

hours produced by the solar energy property and sold by the taxpayer ~~to~~

~~an unrelated entity~~ **[via a purchase power agreement]** during the taxable

year, or produced by the solar energy property and used on-site to offset

the site's demand for electricity during the taxable year, for the first ten

years that the solar energy property is in service;

(B) After December 31, 2016, but on or before December 31, 2020, _____ cents multiplied by the number of kilowatt-hours produced by the solar energy property and sold by the taxpayer ~~to an unrelated entity~~ [via a purchase power agreement] during the taxable year or produced by the solar energy property and used on-site to offset the site's demand for electricity during the taxable year, for the first ten years that the solar energy property is in service; and

(C) After December 31, 2020, _____ cents multiplied by the number of kilowatt-hours produced by the solar energy property and sold by the taxpayer ~~to an unrelated entity~~ [via a purchase power agreement] during the taxable year or produced by the solar energy property and used on-site to offset the site's demand for electricity during the taxable year, for the first ten years that the solar energy property is in service; or

The next 2 suggested amendments are to clarify that it is not the intent of the State, should a recommendation be made to eliminate the tax credits, to apply the recommendations to projects already in service.

(p) The department of business, economic development, and tourism shall commence a study no later than July 1, 2016, on the costs incurred and benefits generated by this section, as well as the extent to which the tax credit under this section has helped the State to achieve its energy goals. In conducting this study, the department of business, economic development, and tourism shall consult with the department of taxation and industry trade groups and may consult with other stakeholders. The department of business, economic development, and tourism shall submit a report to the legislature no later than December 31, 2017. This report to the legislature shall include, at a minimum, the following:

- (1) The elements in subsection (o);
- (2) The results of its study; and

(3) Recommendations on whether the tax credit under this section should be wholly or partially continued, eliminated, or revised." **[provided however, in no instance shall this Act be amended in such a manner as to reduce or eliminate payment under Section 1 (a) for property already in service.]**

(i) If the tax credit under subsection (a)(3) exceeds the taxpayer's income tax liability, the excess of the credit over liability shall be refunded to the taxpayer; provided that tax credit amounts properly claimed by a taxpayer who has no income tax liability shall be paid to the taxpayer; provided further that no refund on account of the tax credit allowed by this section shall be made for amounts less than \$1[; provided further, that in the case of property in service pursuant to subsection (a) (3), reduction in payments in any subsequent year by any act or executive decision shall be prohibited.]

As you know KIUC is a member-owned cooperative with nine elected Board of Directors. Being member-owned, KIUC has set a renewable generation goal of 50% by 2023. KIUC plans to use a portfolio approach to achieve its goals by using a combination of Hydro, Biomass, and Solar Photovoltaic generation to achieve its renewable goals. KIUC has planned for two 12MW PV farms located in Anahola and Poipu which will provide Kauai with approximately 12% of its energy from the sun. The fact that this is a KIUC-owned project along with the State tax credits, make it an affordable source of energy for our members and help stabilize rates in the future. Thank you for the opportunity to testify on this matter.



COLLEGE OF SOCIAL SCIENCES
HAWAII ENERGY POLICY FORUM
UNIVERSITY OF HAWAI'I AT MĀNOA

Hawaii Energy Policy Forum

Jeanne Schultz Afuvai, Hawai'i Institute for Public Affairs
Robbie Alm, Hawaiian Electric Co.
Amy Asselbayer, Office of US Congresswoman Tulsi Gabbard
Joe Boivin, Hawai'i Gas
Warren Bollmeier, Hawaii Renewable Energy Alliance
Albert Chee, Chevron
Rep. Denny Coffman, Hawai'i State House of Representatives
Elizabeth Cole, The Kohala Center
Leslie Cole-Brooks, Hawai'i Solar Energy Assn
Kyle Datta, Ulupono Initiative
Laura Dierenfield, Queen Lili'uokalani Trust
Mitch Ewan, UH Hawai'i Natural Energy Institute
Jay Fidell, ThinkTech Hawai'i, Inc.
Carl Freedman, Haiku Design & Analysis
Sen. Mike Gabbard, Hawai'i State Senate
Mark Glick, State Energy Office, DBEDT
Justin Gruenstein, City & County of Honolulu
Dale Hahn, Office of Senator Brian Schatz
Michael Hamnett, Research Corporation of the UH
Robert Harris, Sierra Club
William Kaneko, Hawaii Institute for Public Affairs
Jim Kelly, Kaua'i Island Utility Cooperative
Darren Kimura, Energy Industries Holdings
Kelly King, Sustainable Biodiesel Alliance
Representative Chris Lee, Hawai'i State House of Representatives
Gladys Marrone, Building Industry Assn of Hawai'i
Doug McLeod, Maui County
Stephen Meder, UH Center for Smart Building and Community Design
Lauren Montez-Hernandez, Office of Senator Mazie Hirono
Hermina Morita, Public Utilities Commission
Sharon Moriwaki, UH Social Sciences Public Policy Center
Ron Nelson, U.S. Defense Energy Support Center
Tim O'Connell, U.S. Department of Agriculture, Rural Development
Jeffrey Ono, Division of Consumer Advocacy, DCCA
Winteh K. T. Park, Office of Congresswoman Colleen Hanabusa
Melissa Pavlicek, Hawaii Public Policy Advocates, LLC
Rick Rocheleau, UH Hawai'i Natural Energy Institute
Will Rolston, Hawai'i County
Peter Rosegg, Hawaiian Electric Co.
Riley Saito, SunPower Systems Corp
Joelle Simonpietri, U.S. Pacific Command Energy Office
H. Ray Starling, Hawaii Energy
Ah Linn Sue, Hawaii Government Employees Assn
Ben Sullivan, Kaua'i County
Lance Tanaka, Tesoro Hawai'i Corp
Maria Tome, State Energy Office, DBEDT

Testimony of Leslie Cole-Brooks
Vice-chair, Renewable Energy Working Group
Hawaii Energy Policy Forum

House Committee on Finance
Monday, April 1, 2013, 2 p.m., Conference Room 308

COMMENTS ON SB 623, SD2, HD2 – Relating to Renewable Energy

I am Leslie Cole-Brooks, Vice-chair of the Renewable Energy Working Group of the Hawaii Energy Policy Forum (Forum). The Forum, created in 2002, is comprised of 45 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" are designed to move Hawaii toward its preferred energy goals.

SB 623, SD2, HD2 proposes to gradually reduce the renewable energy tax credit for photovoltaic systems under 1 MW (ITC), and to create a production tax credit (PTC) for photovoltaic systems of 1 MW and greater. In addition, SB 623 SD 2 HD2 removes the current caps on PV systems of all sizes, and mandates that the Hawaii State Department of Taxation and DBEDT report on both the costs and benefits of the renewable energy tax credit. Although there is some question as to the most equitable way to balance the ITC and PTC credits, all interested parties agree that the current renewable energy tax credit must be reformed to ensure transparency and fairness, and to guarantee our continued progress towards energy security.

SB 623, SD2, HD2 addresses the Forum's goals of expanding renewable energy opportunities, promoting conservation and energy efficiency, and ensuring the security and reliability of energy supply and distribution. Achieving these goals will take significant investment as well as continuing and consistent commitment and support. As such, the installation of solar energy and efficiency in Hawaii has contributed substantially towards our clean energy goals. We currently have the highest solar hot water installations per capita in the Nation, with the energy saved amounting to the equivalent of over 450,000 barrels of oil each year. Residential and small commercial PV installations now account for over 127 MW of installed capacity, an oil equivalent off-set of nearly 380,000 barrels each year. Utility scale projects have also made substantial contributions, with 15 MWac of installed capacity from utility scale projects currently online, in addition to 10MWac under construction, and 60 MWac moving through the site control/KIUC/HECO/PUC process. Should all of these utility scale projects be brought online over the next few years, the equivalent off-set would be 250,000 barrels each year for 20 years.

Yet, despite Hawaii's many clean energy successes, we still remain dangerously dependent upon imported fossil fuels, and the uncertainty surrounding the current renewable energy tax credits threatens to significantly deter our progress. We therefore urge you to advance SB623, SD2, HD2 and to support its passage.

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



HOUSE COMMITTEE ON FINANCE
Monday, April 1, 2013 — 2:00 p.m.

**TESTIMONY SUPPORTING
SB 623 SD2 HD2 RELATING TO RENEWABLE ENERGY**

Chair Luke, Vice Chair Nishimoto, Vice Chair Johanson, and Members of the Committee:

Distributed Energy Partners **supports** SB 623 SD2 HD2, which will reform the Renewable Energy Technologies Income Tax Credit (“RETITC”) while maintaining the viability of the solar industry. SB 623 SD2 HD2 will save the State tens of millions of dollars in tax credit related outlays, while continuing to promote solar energy technologies that will allow Hawai‘i to reach its clean energy goals and reduce our dependence on imported fossil fuels. This bill will also continue to make solar energy technologies accessible to the vast majority of Hawai‘i’s residents.

The current version of SB 623 contains blanks in section (a) that must be filled in before the bill is finalized. We recommend that the Committee re-insert the percentages and cap amounts contained in HB 497 HD3, which closely track the percentages and cap amounts contained in prior versions of SB 623. Specifically, we recommend the following numbers be used:

- For section (a)(1), solar thermal tax credit caps in the amounts of:
 - **\$2,500** per property for single-family residential property;
 - **\$500** per unit per property for multi-family residential property;
 - **\$250,000** per property for commercial property
- For section (a)(2), solar tax credit percentages in the amounts of:
 - **30%** for property placed in service after December 31, 2012 and before January 1, 2014;
 - **25%** for property placed in service after December 31, 2013 and before January 1, 2016;
 - **20%** for property placed in service after December 31, 2015 and before January 1, 2018;
 - **15%** for property placed in service after December 31, 2017.
- For section (a)(3), production tax credit amounts of:
 - **8 cents/kWh** for solar energy property installed and placed in service on or before December 21, 2016;
 - **6 cents/kWh** for solar energy property installed and placed in service on or before December 31, 2020;
 - **4 cents/kWh** for solar energy property installed and placed in service after December 31, 2020.
- For section (a)(4), a cap on the utility-scale wind energy credit of **\$500,000**.



DISTRIBUTED ENERGY PARTNERS

Performance in Power

We strongly support this bill, and we hope that the Committee will pass the bill out with the recommended percentages, credit amounts, and caps specified above. Thank you for the opportunity to provide this testimony.

Respectfully,
Joshua Powell
Principal & RME



INTER-ISLAND SOLAR SUPPLY



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Monday, April 1, 2013 (2:00 PM)
Testimony Before the House Committee
on
Finance
In Regard To:

S.B. 623 SD 2, HD 2, RELATING TO RENEWABLE ENERGY

Chair Luke, Vice Chairs Nishimoto and Johanson and members of the committee, my name is Richard Reed and I am the President of Inter-Island Solar Supply. Our company was founded in 1973, incorporated in 1975, and is one of the oldest and largest distributors of renewable energy equipment in the United States.

Inter-Island Solar Supply **supports** the passage of S.B. 623, SD2, HD 2 with amendments.

HRS 235-12.5, despite its inadequacies and ambiguous language, has been extremely successful in inducing home and business owners to purchase solar water heating and PV systems. The recent uptake, particularly for net-energy metered systems, has been breathtaking. According to documents recently filed by the Hawaiian Electric group of companies with the PUC, over 73 MW (megawatts) of new net-metered PV were installed in their service territories in 2012. This is precisely the speed, scale and traction required for Hawaii to meet its statutory renewable energy obligations under the Hawaii Clean Energy Initiative.

By redefining eligible renewable energy property, S.B. 623, SD 2, HD 2, closes the loophole that has allowed for a single individual or business to claim multiple PV tax credits, thus avoiding the artificially low cap levels imposed by a previous legislature. This key definitional change will lead to increased fairness and much greater transparency. The change, moreover, will not lead to over-sized PV systems since there is absolutely no economic incentive or rationale to do so within the utility regulations and rules for net-energy metered systems. In short, ratepayers seeking an off-ramp from unsustainable high utility costs will continue to purchase properly sized PV systems for their homes and businesses.

One of the most important provisions provided by S.B. 623, SD 2, HD 2, is the annual reporting requirement. There is simply no excuse for not knowing the real time cost and benefit of any State of Hawaii tax credit or incentive, especially those incentives that are linked by statute to an essential public purpose or objective. Do not be swayed by DoTax or DBEDT claims that do not have the technical or human resources to provide real-time fiscal and economic information. The public debate surrounding the renewable energy investment tax credits has been much poorer for the lack of current and accurate information on both the costs and the full fiscal and economic benefits associated with this credit.

Comments Specific to the Proposed Changes to HRS 235-12.5

We respectfully propose the following amendments and recommendations for the committee's consideration:

Section 1:

- (1) Solar water heating (*fill in the blanks*)
 - (A) \$2,500
 - (B) \$500
 - (C) \$250,000

Despite this recommendation, it is incongruous to continue to impose caps on solar water heating systems that are not imposed on PV systems. Again, there is no technical or economic incentive to over-size a solar water heating system for tax credit purposes alone. Systems will continue to be sized to load, not available tax credits. Solar water heating systems historically have not been subject to multiple credit claims or abuse.

Section 2:

- (2) Solar electricity < 1 MW (*change the dates*)

35% before May 31, 2013 to avoid ex post facto challenges. **30%** after June 1, 2013.

(A) **25%** after Dec. 31, 2013 and before Jan. 1, 2016

(B) **20%** after Dec. 31, 2015 and before Jan. 1, 2018 – **if and only if the federal 30% investment tax credit (ITC) is extended beyond December 31, 2016. Otherwise the credit level shall increase to 35% effective January 1, 2017.**

As a matter of policy, none of the proposed credit level reductions will provide sufficient incentive to significantly move the Hawaii market, especially for PV systems, in the absence of the federal ITC.

- (3) Solar electricity \geq 1 MW

Production incentives must be set at a level sufficient to provide for a reasonable ROI for large projects while not jeopardizing the budget allocation for projects under 1 MW. A number of variables must be considered for each project including the total cost basis, annual energy production and the cost of capital. Inter-Island Solar Supply supports the effort by HSEA, HREA and other project developers to work collaboratively to propose fair and reasonable production incentives.

Thank you for the opportunity to testify on this measure.

HOUSE COMMITTEE ON FINANCE
Monday, April 1, 2013 — 2:00 p.m.

**TESTIMONY SUPPORTING
SB 623 SD2 HD2 RELATING TO RENEWABLE ENERGY**

Chair Luke, Vice Chair Nishimoto, Vice Chair Johanson, and Members of the Committee:

Sunetric supports SB 623 SD2 HD2, which will reform the Renewable Energy Technologies Income Tax Credit (“RETITC”) while maintaining the viability of the solar industry. SB 623 SD2 HD2 will save the State tens of millions of dollars in tax credit related outlays, while continuing to promote solar energy technologies that will allow Hawai‘i to reach its clean energy goals and reduce our dependence on imported fossil fuels. This bill will also continue to make solar energy technologies accessible to the vast majority of Hawai‘i’s residents.

The current version of SB 623 contains blanks in section (a) that must be filled in before the bill is finalized. We recommend that the Committee re-insert the percentages and cap amounts contained in HB 497 HD3, which closely track the percentages and cap amounts contained in prior versions of SB 623. Specifically, we recommend the following numbers be used:

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 - **6 cents/kWh** for solar energy property installed and placed in service on or before December 31, 2020;
 - **4 cents/kWh** for solar energy property installed and placed in service after December 31, 2020.

- For section (a)(4), a cap on the utility-scale wind energy credit of **\$500,000**.

We strongly support this bill, and we hope that the Committee will pass the bill out with the recommended percentages, credit amounts, and caps specified above. Thank you for the opportunity to provide this testimony.

Respectfully,

Alex Tiller, Sunetric CEO



HOUSE COMMITTEE ON FINANCE
Monday, April 1, 2013 — 2:00 p.m.

**TESTIMONY SUPPORTING
SB 623 SD2 HD2 RELATING TO RENEWABLE ENERGY**

Chair Luke, Vice Chair Nishimoto, Vice Chair Johanson, and Members of the Committee:

RevoluSun **supports** SB 623 SD2 HD2, which will reform the Renewable Energy Technologies Income Tax Credit (“RETITC”) while maintaining the viability of the solar industry. SB 623 SD2 HD2 will save the State tens of millions of dollars in tax credit related outlays, while continuing to promote solar energy technologies that will allow Hawai’i to reach its clean energy goals and reduce our dependence on imported fossil fuels. This bill will also continue to make solar energy technologies accessible to the vast majority of Hawai’i’s residents.

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- For section (a)(4), a cap on the utility-scale wind energy credit of **\$500,000**.

We strongly support this bill, and we hope that the Committee will pass the bill out with the recommended percentages, credit amounts, and caps specified above. Thank you for the opportunity to provide this testimony.

Respectfully,

Colin Yost
Principal & General Counsel



HOUSE COMMITTEE ON FINANCE

Monday, April 1, 2013 — 2:00 p.m. — Room 308

**SB 623, SD2, HD 2 Relating to Renewable Energy
Testimony in Support**

Chair Luke, Vice Chairs Nishimoto and Johanson, and Members of the Committee:

My name is Jon Wallenstrom and I am the President of Forest City Hawaii. Forest City Hawaii is principally engaged in the ownership, development, management and acquisition of commercial and residential real estate and land in Hawaii. It is currently involved in a partnership with the Hawaii Housing Finance and Development Corporation (HHFDC) to develop Kamakana Villages, a mixed-use community of 2,206 homes on the Big Island, of which more than 50% will be affordably priced. We have also put in place six photovoltaic farms on Oahu and are one of the largest owners of clean, renewable energy assets in the State. Forest City is one of the largest residential community and renewable energy developers in the state. At Forest City we leverage our real estate experience to create renewable energy projects. These developments help offset the high cost of energy in Hawaii for both our community as a whole, while also decreasing the state's dependence on fossil fuels.

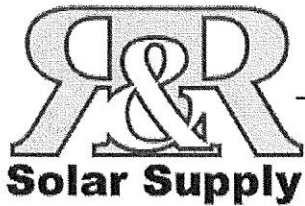
Forest City **supports** SB 623 SD2 HD2, which will reform the Renewable Energy Technologies Income Tax Credit ("RETITC") while maintaining the viability of the solar industry. SB 623 SD2 HD2 will save the State tens of millions of dollars in tax credit related outlays, while continuing to promote solar energy technologies that will allow Hawai'i to reach its clean energy goals and reduce our dependence on imported fossil fuels. This bill will also continue to make solar energy technologies accessible to the vast majority of Hawai'i's residents.

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- For section (a)(4), a cap on the utility-scale wind energy credit of **\$500,000**.

We strongly support this bill, and we hope that the Committee will pass the bill out with the recommended percentages, credit amounts, and caps specified above. Thank you for the opportunity to provide this testimony.



Before the House Committee on Finance
Monday, April 1, 2013, 2 p.m., room 308
SB 623 SD 2 HD 2: RELATING TO RENEWABLE ENERGY

Aloha Chair Luke, Vice-Chairs Nishimoto and Johanson, and members of the House Committee on Finance,

My name is Rolf Christ and I'm testifying on behalf of R & R Solar Supply, a local manufacturer and distributor of solar energy products.

I'm testifying in support of SB623, hoping reasonable percentages and dates can be inserted into the many blank spots.

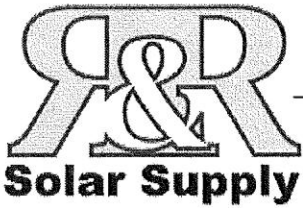
Our trade organization (HSEA) already provided testimony suggesting certain reduced credit and ramp down percentages that would still help the State achieve it's energy goals without devastating the solar industry. 2012 data show 26% of all construction activity in Hawaii came from solar energy installations and with that the State of Hawaii enjoyed decent growth and low unemployment.

Already the temporary administrative rules and uncertainty surrounding the solar tax credits have decreased business in this first quarter drastically compared to last year.

We feel only a very gradual ramp down can maintain current construction activity. Also, keeping in mind that material costs for PV have certainly reached the very bottom and with manufacturers going out of business or consolidating, a reduction below 20% would devastate the local solar industry, especially after the federal credit expires in 2016.

The State of Hawaii has shown leadership in the 80s and 90s when it increased the State tax credits after the federal credit expired in 1987. That is the only reason Hawaii could maintain a strong national leadership in Solar Hot Water Heating and have an industry that now supports our energy goals. Many states simply lost most of their solar industries and all the experience and infrastructure that goes with that.

As I have mentioned in testimony many times before to little is as bad as giving to much. The incentives have to be enough to encourage the taxpayer to invest in solar, which we feel under current conditions (pricing and utility rates) should not be lower than 20% to 25% for distributed generation (DG) and a 4% PTC for feed-in Megawatt systems. Keep in mind that PV power generated on the customer side of the meter will actually save the rate payer money, that will keep circulating in the state, whereas utility scale projects will not lower electric rates for any investors.



Attached is a table that shows various scenarios for Megawatt installations based on current data. Even at 4 cents PTC the simple payback is still under 3 years, taking depreciation and feed-in payments into consideration.

We feel that that is a very generous return on investment and that it would encourage many installations.

The last thing we want to do is be here again in a couple of years, because the State feels it is giving away too much in incentives.

Thank you for giving me the opportunity to testify

Aloha

A handwritten signature in black ink, appearing to read 'Rolf Christ', is written over the word 'Aloha'.

Rolf Christ
president

sample location		sample size		sample payback		notes:	
500 zone (Ewa, Barber's Pt., Hickam or Waianae)		2,000,000		at 4 cents/kwh		many projects bid below that	
System Size	2,000,000	at 8 cents/kwh	now	at 4 cents/kwh	notes:	at 4 cents/kwh	at 4 cents/kwh
kWh production	PTC @8 cents/kWh	at 8 cents/kwh	now	at 4 cents/kwh	many projects bid below that	at 4 cents/kwh	at 4 cents/kwh
3,471,880	\$	277,750	\$6,000,000	\$6,000,000	30%	\$6,000,000	\$6,000,000
3,454,658	\$	276,373	\$1,800,000	\$1,800,000	actually capped at \$500,000 w/out loophole	\$1,800,000	\$1,800,000
3,437,521	\$	275,002	\$500,000	\$0	just federal @34% tax rate	\$0	\$0
3,420,469	\$	273,638	\$1,335,180	\$1,335,180	PTC @4 cents = 17.5% credit	\$1,335,180	\$1,335,180
3,403,502	\$	272,280	\$0	\$2,101,657		\$2,101,657	\$1,050,828
3,386,619	\$	270,930	\$2,364,820	\$763,163		\$763,163	\$1,813,992
3,369,819	\$	269,586	\$668,893	\$668,893		\$668,893	\$668,893
3,353,103	\$	268,248					
3,336,470	\$	266,918					
3,319,920	\$	265,594					
Total PTC payment	\$	2,716,317					
			simple payback in years	1.14		2.71	
			Discount rate	3.5%		4.0%	
			NPV value to the State	\$ 2,262,243		\$ 2,206,720	
				3.0%		4.5%	
				\$ 2,319,887		\$ 2,153,221	
						5.0%	
						\$ 2,101,657	
						5.5%	
						\$ 2,051,941	
						6.0%	
						\$ 2,003,992	

