NEIL ABERCROMBIE
GOVERNOR

SHAN TSUTSUI
LT. GOVERNOR

FREDERICK D. PABLO
DIRECTOR OF TAXATION

JOSHUA WISCH
DEPUTY DIRECTOR

STATE OF HAWAII
DEPARTMENT OF TAXATION
P.O. BOX 259
HONOLULU, HAWAII 96809
PHONE NO: (808) 587-1530
FAX NO: (808) 587-1584

To: The Honorable Chris Lee, Chair
and Members of the House Committee on Energy & Environmental Protection

Date: Tuesday, March 12, 2013
Time: 8:30 a.m.
Place: Conference Room 325, State Capitol

From: Frederick D. Pablo, Director
Department of Taxation

Re: S.B. 623 S.D.2 Relating to Renewable Energy

The Department of Taxation (Department) **appreciates the intent** of S.B. 623 S.D.2, and provides the following summary and comments for your consideration.

Section 1 of this bill amends Hawaii Revised Statutes (HRS) section 235-12.5 by:

- Providing a renewable energy credit for solar water heaters at a rate of 35% with caps of unspecified amounts for single-family residential applications, multi-family residential applications, and commercial application.

- Providing a renewable energy tax credit for solar energy property that has an alternating current capacity which is less than one megawatt at an unspecified rate for solar energy property placed in service between January 1, 2013 and December 31, 2013, an unspecified rate between January 1, 2014 and December 31, 2015, an unspecified rate between January 1, 2016 and December 31, 2017, and an unspecified rate thereafter.

  For this type and size of energy property installed and placed into service, the Department prefers the language of H.B. 967, which also removes the cap on the tax credit, but offers the credit at a lower rate. Removal of the cap without a concurrent reduction in the percentage of tax credit allowed will result in a greater revenue loss to the State.

  Additionally, the Department prefers that the tax credit be a fixed percentage, rather than a sliding scale, as it will be substantially easier for the Department to administer. The Department notes that declining rates for each year will create an unnecessary rush for energy property be installed and placed in service at the end of each year. This rush will

cause compliance and enforcement issues for the Department and taxpayers, who have an incentive to claim the tax credit in the earlier year. Based on inquiries to the Department at the end of each calendar year, the Department has concerns about the accuracy of tax information renewable energy installers have provided to taxpayers with respect to the taxable year in which the tax credit may be claimed. The Department's primary concern is that the taxpayer, not the installer, will be required to substantiate that their claim for tax credit had been claimed in the correct taxable year.

- Providing a renewable energy production tax credit at an unspecified number of cents per kilowatt hour produced and sold for projects with an alternating current capacity of one megawatt or higher with a cap of an unspecified amount. This production credit can be claimed by the taxpayer for the first 10 years after the project is placed in service. The Department estimates that for each megawatt of capacity installed, at a rate of 4 cents per kilowatt hour produced and sold, the production credit amount will be $64,000 per year and $640,000 over a ten year period. This means that if one megawatt of capacity costs $3 million to place in service, the total credit received is approximately 21.33% of the cost to place in service per megawatt of capacity.

- Providing a renewable energy production tax credit at an unspecified number of cents per kilowatt hour produced and sold for projects with an alternating current capacity of one megawatt or higher, provided that the taxpayer can show evidence that the taxpayer either 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, 2012, with a cap of an unspecified amount.

  The Department estimates that for each megawatt of capacity installed, at a rate of 8 cents per kilowatt hour produced and sold, the production credit amount will be $128,000 per year and $1.28 million over a ten year period. This means that if a megawatt of capacity costs $3 million to place in service the total credit received is approximately 42.67% of the cost to place in service per megawatt of capacity. The Department additionally notes that the federal production tax credit only provides 2.2 cents per kilowatt hour produced and sold – approximately one-fourth the 8 cents proposed in this measure.

- Providing a renewable energy tax credit for wind energy property at a rate of 20% with a cap of an unspecified amount. The Department notes that the cap will be difficult to administer, similar to the current statute, as the measure does not define the cap or provide guidance as to its application.

- Allowing full refundability of the production tax credit claimed for solar energy property with an alternating current capacity of one megawatt or higher.

- Allowing taxpayers not currently regulated by the Public Utilities Commission, that have 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, to claim the tax credit as if the solar energy property was placed in service prior to January 1, 2013, provided that the property is placed in service prior to January 1, 2014.

  The Department is opposed to the grandfathering aspect of this provision due to the difficulty in compliance and enforcement of the tax credit prior to the issuance of the administrative rules which went into effect on January 1, 2013.

- Allowing taxpayers who received an administrative extension, for a previously-issued Department letter ruling, to claim the tax credit as it existed on December 31, 2012, provided that the energy property is placed in service on or before December 31, 2012.

- Disallowing the claiming of the tax credit by any governmental agency.

- Requiring the Department along with the Department of Business, Economic Development, and Tourism (DBEDT) to compile a detailed joint report and submit the report to the legislature no later than 20 days prior to the convening of each regular session.

  The Department notes that this type of detailed reporting is difficult with the Department's current computer system. In order to meet this requirement, it is likely that the Department will need to require mandatory electronic filing of the information by each taxpayer claiming the credit, as well as additional resources to develop the mandatory filing process.

- The Department importantly notes that for a ten-year production credit, assuming the same amount of capacity is installed each year starting in 2014 and ending in 2019, the amount of the tax credits that show up in the budget window will be only 35% of the actual total cost of the tax credit to the State's taxpayers. This is true, regardless of the amount of the production tax credit per kilowatt hour. For example, for the systems installed in 2014, 60% of the total cost of the credit will be paid out in the budget window, whereas for systems installed in 2019, only 10% of the total cost of the credit will be paid in the budget window. In other words, any proposed revenue estimate for the production tax credit will account for only about one third of its total cost; the rest of the cost is an unfunded liability in future years.

Thank you for the opportunity to provide comments.

NEIL ABERCROMBIE
GOVERNOR

RICHARD C. LIM
DIRECTOR

MARY ALICE EVANS
DEPUTY DIRECTOR

DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT & TOURISM

No. 1 Capitol District Building, 250 South Hotel Street, 5th Floor, Honolulu, Hawaii 96813
Mailing Address: P.O. Box 2359, Honolulu, Hawaii 96804
Web site: www.hawaii.gov/dbedt

Telephone: (808) 586-2355
Fax: (808) 586-2377

Statement of
RICHARD C. LIM
Director
Department of Business, Economic Development, and Tourism
before the
HOUSE COMMITTEE ON ENERGY AND ENVIRONMENTAL PROTECTION
Tuesday, March 12, 2013
8:30 a.m.
State Capitol, Conference Room 325

in consideration of

SB 623, SD2
RELATING TO RENEWABLE ENERGY.

Chair Lee, Vice Chair Thielen, and Members of the Committee.

The Department of Business, Economic Development & Tourism (DBEDT) supports SB 623, SD2 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 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.

Sierra Club
Hawai'i Chapter
PO Box 2577, Honolulu, HI 96803
808.538.6616 hawaii.chapter@sierraclub.org

HOUSE COMMITTEE ENERGY & ENVIRONMENTAL PROTECTION

March 12, 2013, 8:30 A.M.
(Testimony is 1 page long)

TESTIMONY IN SUPPORT OF SB 623 SD2

Aloha Chair Lee and Members of the Committee:

The Sierra Club of Hawai'i, with over 10,000 members and supporters, ***strongly supports*** SB 623 SD2. This measure would advance the State's clean energy efforts setting up a long-term plan for our renewable energy tax credit to slowly wean down over time. It maintains an important policy tool intended to encourage investment in clean energy, reduce Hawai'i's dependence on unstable foreign oil, and improve Hawai'i's environment.

Our renewable energy tax credit is an important investment for the state. Hawai'i depends on imported oil for nearly 90% of its energy needs. This dependence results in the outflow of the State's financial resources and creates a tenuous reliance on an unsustainable and unstable resource. Moreover, with the increased certainty of climate change as a result of fossil fuel usage and the emerging treaties on greenhouse gas emissions, as well as the global depletion of natural resources, encouragement of renewable energy sources is timely and strategic.

Hawai'i has been a leader in the inevitable renewable energy revolution—but continued success will take a continued commitment from the public policy makers. This measure shows that commitment, but also sets up a long-term path for the solar industry to eventually compete without government assistance.

We note the House passed a similar version of this measure. We prefer the language of HB 497 HD3 and suggest incorporating it here. Specifically, HB 497 includes specific percentages and specifies a 8 cents production tax credit.

Mahalo for the opportunity to testify.

Monday, March 11, 13

To: **HOUSE COMMITTEE ON ENERGY AND ENVIRONMENTAL PROTECTION**
Tuesday, March 12, 2013 — 8:30 a.m.

Re: **TESTIMONY SUPPORTING SB 623 SD2 RELATING TO RENEWABLE ENERGY**

Dear Chair Lee, Vice Chair Thielen, and Members of the Committee:

AlphaStream Capital Management LLC **supports** SB 623 SD2, which will reform the Renewable Energy Technologies Income Tax Credit ("RETITC") while maintaining the viability of the solar industry. SB 623, SD2 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 depends on imported fossil fuels.

However, there are three critical areas in which SB 623 SD2 should be amended before it can move forward as a viable bill: **first**, the tax credit percentages which were left blank in this version of the bill must be filled in; **second**, section (a)(3) of this bill governing the solar production tax credit should be replaced with compromise language agreed to by industry members; and, **third**, three critical technical amendments must be made to avoid fatal implementation problems with the bill. We respectfully offer suggestions for these three areas below.

1. Tax Credit Percentages and Cap Amounts Must Be Filled In

The current version of SB 623 contains blanks in sections (a)(1), (a)(2), and (a)(4) that must be filled in. 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)(4), a cap on the utility-scale wind energy credit of **$500,000**.

2. Replacement of Production Tax Credit Provisions With Compromise Language

The current version of SB 623 SD2 contains in section (a)(3) a two-tiered production tax credit rate for projects larger than 1 MW in size. One rate is a "base" rate and the other is a "grandfathered" rate for projects already in process. This differs from HB 497 HD3, which also contained a two-tiered rate for utility scale projects, but differentiated between projects based on whether or not the projects were "competitively bid."

We recommend that section (a)(3) of SB 623 SD2 be replaced with the "compromise" language below, which was agreed to by industry members with divergent views who were asked to work out a compromise solution amongst themselves. This "compromise" language below eliminates the tiered rate structure and instead steps down the production tax credit over time to mirror the stepped-down investment tax credit provisions of section (a)(2). This "compromise" language for section (a)(3) is as follows:

> (a)(3) For each solar energy property that is used to generate electricity and is one megawatt or larger in alternating current capacity:
>
> (A) For solar energy property that is placed in service on or before December 31, 2016, eight cents multiplied by the number of kilowatt hours produced by the solar energy property and sold by the taxpayer to an unrelated entity 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 the solar energy property is in service;
>
> (B) For solar energy property that is placed in service after December 31, 2016, but on or before December 31, 2020, six cents multiplied by the number of kilowatt hours produced by the solar energy property and sold by the taxpayer to an unrelated entity 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 the solar energy property is in service; and
>
> (C) For solar energy property that is placed in service after December 31, 2020, four cents multiplied by the number of kilowatt hours produced by the solar energy property and sold by the taxpayer to an unrelated entity

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 the solar energy property is in service.

This approach will be far easier to administer than determining which projects had met certain milestones by what date as currently contemplated by SB 623 SD 2. Moreover, this approach will be good for the general fund. Not only will the transition to a production tax credit in general represent a reduced return to developers of these projects compared to the 24.5% available under the previous tax incentive regime, but it will further benefit the general fund because the value of the credit declines over time with the proposed compromise language above. In addition, the production tax credit is based on the federal 'produced and sold' language and requires systems to produce energy in order to benefit from the tax incentive. Under the production tax credit, the State can be sure it is not paying for energy that is not used or for developing generating capacity that goes unutilized because units are offline due to poor design or construction.

3. Critical Technical Revisions

There are three critical technical revisions that must be made in order to avoid potentially serious or even fatal implementation problems with the legislation. These three technical amendments are: (a) to the definition of "Property"; (b) to the definition of "Basis"; and, (c) to clarify the availability of the credit for utility-scale wind energy property.

(a) Definition of "Property"

This draft of SB 623 rightly attempts to rely on the federal definition of energy "property" in its reform of HRS § 235-12.5 by defining "property" as having "the same meaning as in section 25D, 45, or section 48 of the Internal Revenue Code." Unfortunately, however, "property" is not defined as a stand-alone term in any of those three sections of the IRC, and to the extent it is defined in conjunction with other terms — e.g., "energy property" and "qualified solar electric property expenditure" — the definitions are inconsistent and/or contradictory. For example, "energy property" in Sec. 48 is defined so as to exclude property that is not depreciable, since Sec. 48 only applies to commercial property. This won't work for HRS § 235-12.5, where the definition of property is intended to apply to both residential and commercial property. In any case, SB 623 SD 2 maintains a tie-in to the federal IRC for interpretation of these terms via its section (j), which provides that "The tax credits provided for in this section shall be construed in accordance with Treasury Regulations and judicial interpretations of similar provisions in sections 25D, 45, and 48 of the Internal Revenue Code."

In order to address this technical flaw, we recommend that the definition of "Property"

used in SB 623 SD2 be replaced with the following definition:

> "Property" means (i) equipment which uses wind or solar energy to generate electricity; (ii) the construction, reconstruction, or erection of which is completed by the taxpayer, or which is acquired by the taxpayer if the original use of such property commences with the taxpayer.

This proposed definition takes the key elements of the federal law definitions and applies them to HRS § 235-12.5 in a workable manner.

(b) Definition of "Basis"

The second sentence of the definition of "Basis" in SB 623 SD2 should be deleted in order to avoid any conflict with federal law. SB 623 SD2 rightly attempts to follow the existing federal law definitions where possible. The third sentence of the definition of "Basis" fully accomplishes this goal of "following the federal" by stating:

> "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 of 1986, as amended; provided that 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."

However, this approach is jeopardized by the preceding sentence in the definition of "Basis," which states that: "Any cost incurred and paid for the repair, construction, or 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." In fact, federal law – as well as the existing Hawai'i RETITC – allows for costs associated with the construction, installation, and placing in service of the solar or wind energy property to constitute part of the basis. Therefore the second sentence of the definition of "Basis" contradicts the "follow the federal" approach, is contrary to the third sentence of the definition of "Basis," and would severely limit the use of the credit. To resolve this issue, the second sentence of the definition of "Basis" should be deleted.

(c) Clarification of the Credit for Utility Scale Wind Energy Property

It is our understanding that the intent of SB 623 SD2 is not to include a wind tax credit for projects larger than 1 MW. As drafted, however, a larger wind energy project comprised of turbines whose individual rated capacities are below 1 MW would arguably be eligible for an investment tax credit because it is possible that each turbine would be considered separate "property." If the intent of the Committee is to limit the

investment tax credit's availability to solar and wind developments in which the overall project is less than 1 MW in size, the Committee may wish to substitute "not part of a larger wind energy property" in section (a)(4) with "not part of a larger wind energy development." A similar change could be made in section (a)(2) by replacing "not part of a larger solar energy property" with "not part of a larger solar energy development" or "not part of a larger solar energy facility."

It is our desire to fund and construct several utility-scale and dozens of commercial-scale renewable energy projects in Hawaii, providing immediate and substantial benefits to the State and its citizens and businesses. Your efforts to provide clarification and simplification of SB 623 SD2 and related matters is of paramount importance, and will pave the way for significant investment in the State.

Once again we support this bill, and we hope that the technical recommendations offered above may be of some use to the Committee. Thank you for the opportunity to provide this testimony.

Signed Electronically,

Henry Amado
Managing Partner for AlphaStream Capital Management LLC
CFO of the California Wind Energy Association

HOUSE COMMITTEE ON ENERGY & ENVIRONMENTAL PROTECTION
March 12, 2013, 8:30 A.M.
Room 325
(Testimony is 3 pages long)

TESTIMONY IN SUPPORT OF SB 623 SD2, SUGGESTED AMENDMENTS

Chair Lee and members of the Energy & Environmental Protection Committee:

The Blue Planet Foundation supports the intent of SB 623 SD2, 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.

Blue Planet supports the renewable energy tax credit policy reform found in the House Draft 3 of HB 497. We respectfully request that this Committee amend SB 623 SD2 to reflect that version—with an appropriate effective date.

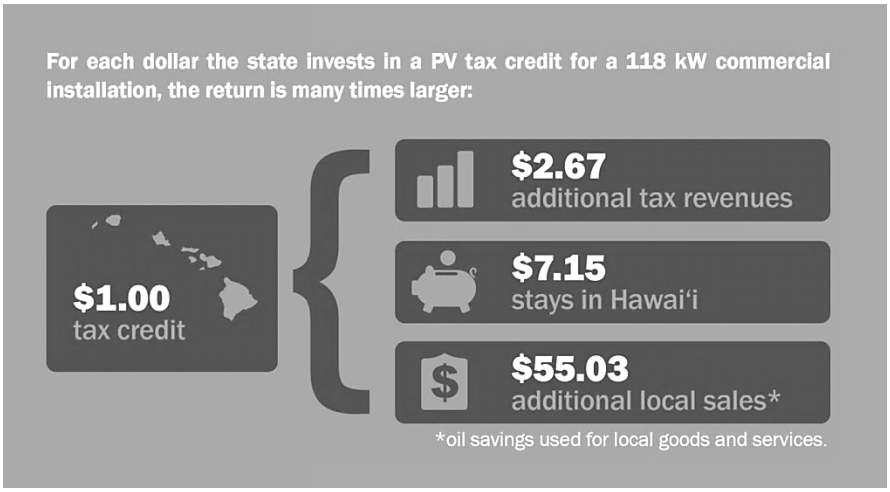
Solar energy is currently a bright spot in Hawaii's progress toward energy independence, and the solar tax credit has been extremely effective at making Hawai'i a leader in solar installations—creating local jobs and providing steady revenue from its business creation. Moreover, the installation of solar 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 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.

info@blueplanetfoundation.org
55 Merchant Street 17th Floor • Honolulu, Hawai'I 96813 • 808-954-6142 • blueplanetfoundation.org

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.

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.

Thank you for this opportunity to testify.

Clean Power Finance

HOUSE COMMITTEE ON ENERGY AND ENVIRONMENTAL PROTECTION

TESTIMONY SUPPORTING SB 623 SD2 RELATING TO RENEWABLE ENERGY

Testimony of Robert Prigge, Chief Commercial Officer, Clean Power Finance

Tuesday, March 12, 2013 — 8:30 a.m.

Chair Lee, Vice Chair Thielen, and Members of the Committee:

Clean Power Finance supports SB 623 SD2, which will reform the Renewable Energy Technologies Income Tax Credit ("RETITC") while maintaining the viability of the solar industry. SB 623, SD2 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 depends on imported fossil fuels.

However, there are three critical areas in which SB 623 SD2 should be amended before it can move forward as a viable bill: **first**, the tax credit percentages which were left blank in this version of the bill must be filled in; **second**, 3 critical technical amendments must be made to avoid fatal implementation problems with the bill including potential negative retroactive impacts to residential solar projects in 2013; and, **third**, section (a)(3) of this bill governing the solar production tax credit should be replaced with compromise language agreed to by industry members. We respectfully offer suggestions for these three areas below.

1. Tax Credit Percentages and Cap Amounts Must Be Filled In

The current version of SB 623 contains blanks in sections (a)(1), (a)(2), and (a)(4) that must be filled in. 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)(4), a cap on the utility-scale wind energy credit of **$500,000**.

2. Critical Technical Revisions

There are three critical technical revisions that must be made in order to avoid potentially serious or even fatal implementation problems with the legislation. These three technical amendments are: (a) to clarify how this new legislation would be phased in relative to the existing administrative rules for 2013 to avoid retroactive impacts for residential solar projects place in service in 2013; (b) to the definition of "Property"; (c) to the definition of "Basis"; and, (d) to clarify the availability of the credit for utility-scale wind energy property.

(a) Clarification to avoid retroactive impacts for residential solar projects place in service in 2013.

SB 623 SD2 is currently written to apply to taxable years beginning after December 31, 2012. In its current form, the bill modifies the RETITC for systems placed in service between December 31, 2012 and January 1, 2014 relative to the existing Temporary Administrative Rules (published by DoTax in November 2012). As a result, this bill creates risk that there will be retroactive impacts to solar projects placed in service during 2013. Residential systems sold in to date in 2013 have assumed they would qualify for the tax credit amounts provided by existing DoTax temporary administrative rules. When those systems are built and placed in service later this year, if they qualify for a different amount of tax credit under the terms in this bill, it could have a negative impact on homeowners, and create confusion for both homeowners and DoTax. To avoid a negative retroactive impact, Clean Power Finance suggests that following language from the initial version of SB 623 be re-inserted into the bill draft:

> <u>"For solar energy properties placed in service after December 31, 2012, and before January 1, 2014, a taxpayer may elect tax credits under this section or under the department's temporary administrative rules that became effective on January 1, 2013."</u>

(b) Definition of "Property"

This draft of SB 623 rightly attempts to rely on the federal definition of energy "property" in its reform of HRS § 235-12.5 by defining "property" as having "the same meaning as in section 25D, 45, or section 48 of the Internal Revenue Code." Unfortunately, however, "property" is not defined as a stand-alone term in any of those three sections of the IRC, and to the extent it is defined in conjunction with other terms — e.g., "energy property" and "qualified solar electric property expenditure" — the definitions are inconsistent and/or contradictory. For example, "energy property" in Sec. 48 is defined so as to exclude property that is not depreciable, since Sec. 48 only applies to commercial property. This won't work for HRS § 235-12.5, where the definition of property is intended to apply to both residential and commercial property. In any case, SB 623 SD 2 maintains a tie-in to the federal IRC for interpretation of these terms via its section (j), which provides that "The tax credits provided for in this section shall be construed in accordance with Treasury Regulations and judicial interpretations of similar provisions in sections 25D, 45, and 48 of the Internal Revenue Code."

In order to address this technical flaw, we recommend that the definition of "Property" used in SB 623 SD2 be replaced with the following definition:

> "Property" means (i) equipment which uses wind or solar energy to generate electricity; (ii) the construction, reconstruction, or erection of which is completed by the taxpayer, or which is acquired by the taxpayer if the original use of such property commences with the taxpayer.

This proposed definition takes the key elements of the federal law definitions and applies them to HRS § 235-12.5 in a workable manner.

(c) Definition of "Basis"

The second sentence of the definition of "Basis" in SB 623 SD2 should be deleted in order to avoid any conflict with federal law. SB 623 SD2 rightly attempts to follow the existing federal law definitions where possible. The third sentence of the definition of "Basis" fully accomplishes this goal of "following the federal" by stating:

> "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 of 1986, as amended; provided that 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."

However, this approach is jeopardized by the preceding sentence in the definition of "Basis," which states that: "Any cost incurred and paid for the repair, construction, or 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." In fact, federal law – as well as the existing Hawai'i RETITC – allows for costs associated with the construction, installation, and placing in service of the solar or wind energy property to constitute part of the basis. Therefore the second sentence of the definition of "Basis" contradicts the "follow the federal" approach, is contrary to the third sentence of the definition of "Basis," and would severely limit the use of the credit. To resolve this issue, the second sentence of the definition of "Basis" should be deleted.

(d) Clarification of the Credit for Utility-Scale Wind Energy Property

It is our understanding that the intent of SB 623 SD2 is not to include a wind tax credit for projects larger than 1 MW. As drafted, however, a larger wind energy project comprised of turbines whose individual rated capacities are below 1 MW would arguably be eligible for an investment tax credit because it is possible that each turbine would be considered separate "property." If the intent of the Committee is to limit the investment tax credit's availability to solar and wind developments in which the overall project is less than 1 MW in size, the Committee may wish to substitute "not part of a larger wind energy property" in section (a)(4) with "not part of a larger wind energy development." A similar change could be made in section (a)(2) by replacing "not part of a larger solar energy property" with "not part of a larger solar energy development" or "not part of a larger solar energy facility."

3. Replacement of Production Tax Credit Provisions With Compromise Language

The current version of SB 623 SD2 contains in section (a)(3) a two-tiered production tax credit rate for projects larger than 1 MW in size. One rate is a "base" rate and the other is a "grandfathered" rate for projects already in process. This differs from HB 497 HD3, which also contained a two-tiered rate for utility scale projects, but differentiated between projects based on whether or not the projects were "competitively bid."

We recommend that section (a)(3) of SB 623 SD2 be replaced with the "compromise" language below, which was agreed to by industry members with divergent views who were asked to work out a compromise solution amongst themselves. This "compromise" language below eliminates the tiered rate structure and instead steps down the production tax credit over time to mirror the stepped-down investment tax credit provisions of section (a)(2). This "compromise" language for section (a)(3) is as follows:

> (a)(3) For each solar energy property that is used to generate electricity and is one megawatt or larger in alternating current capacity:
>
> (A) For solar energy property that is placed in service on or before December 31, 2016, eight cents multiplied by the number of kilowatt hours produced by the solar energy property and sold by the taxpayer to an unrelated entity 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 the solar energy property is in service;
>
> (B) For solar energy property that is placed in service after December 31, 2016, but on or before December 31, 2020, six cents multiplied by the number of kilowatt hours produced by the solar energy property and sold by the taxpayer to an unrelated entity 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 the solar energy property is in service; and
>
> (C) For solar energy property that is placed in service after December 31, 2020, four cents multiplied by the number of kilowatt hours produced by the solar energy property and sold by the taxpayer to an unrelated entity 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 the solar energy property is in service.

This approach will be far easier to administer than determining which projects had met certain milestones by what date as currently contemplated by SB 623 SD 2. Moreover, this approach will be good for the general fund. Not only will the transition to a production tax credit in general represent a reduced return to developers of these projects compared to the 24.5% available under the previous tax incentive regime, but it will further benefit the general fund because the value of the credit declines over time with the proposed compromise language above. In addition, the production tax credit is based on the federal 'produced and sold' language and requires systems to produce energy in order to benefit from the tax incentive. Under the production tax credit, the State can be sure it is not paying for energy that is not used or for developing generating capacity that goes unutilized because units are offline due to poor design or construction.

Once again we support this bill, and we hope that the technical recommendations offered above may be of some use to the Committee. Thank you for the opportunity to provide this testimony.

Sincerely,

Robert E. Prigge
Chief Commercial Officer
Clean Power Finance

HOUSE COMMITTEE ON ENERGY AND ENVIRONMENTAL PROTECTION
Tuesday, March 12, 2013 — 8:30 a.m.

TESTIMONY SUPPORTING SB 623, SD2 RELATING TO RENEWABLE ENERGY

Chair Lee, Vice Chair Thielen, and Members of the Committee:

Distributed Energy Partnters **supports** SB 623, SD2, which will reform the Renewable Energy Technologies Income Tax Credit ("RETITC") while maintaining the viability of the solar industry. SB 623, SD2 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 depends on imported fossil fuels.

However, there are three critical areas in which SB 623, SD2 should be amended before it can move forward as a viable bill: **first**, the tax credit percentages which were left blank in this version of the bill must be filled in; **second**, section (a)(3) of this bill governing the solar production tax credit should be replaced with compromise language agreed to by industry members; and, **third**, three critical technical amendments must be made to avoid fatal implementation problems with the bill. We respectfully offer suggestions for these three areas below.

1. **Tax Credit Percentages and Cap Amounts Must Be Filled In**

The current version of SB 623 contains blanks in sections (a)(1), (a)(2), and (a)(4) that must be filled in. 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)(4), a cap on the utility-scale wind energy credit of **$500,000**.

2. Replacement of Production Tax Credit Provisions With Compromise Language

The current version of SB 623, SD2 contains in section (a)(3) a two-tiered production tax credit rate for projects larger than 1 MW in size. One rate is a "base" rate and the other is a "grandfathered" rate for projects already in process. This differs from HB 497, HD3, which also contained a two-tiered rate for utility scale projects, but differentiated between projects based on whether or not the projects were "competitively bid."

We recommend that section (a)(3) of SB 623, SD2 be replaced with the "compromise" language below, which was agreed to by industry members with divergent views who were asked to work out a compromise solution amongst themselves. This "compromise" language below eliminates the tiered rate structure and instead steps down the production tax credit over time to mirror the stepped-down investment tax credit provisions of section (a)(2). This "compromise" language for section (a)(3) is as follows:

(a)(3) For each solar energy property that is used to generate electricity and is one megawatt or larger in alternating current capacity:

(A) For solar energy property that is placed in service on or before December 31, 2016, eight cents multiplied by the number of kilowatt hours produced by the solar energy property and sold by the taxpayer to an unrelated entity 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 the solar energy property is in service;

(B) For solar energy property that is placed in service after December 31, 2016, but on or before December 31, 2020, six cents multiplied by the number of kilowatt hours produced by the solar energy property and sold by the taxpayer to an unrelated entity 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 the solar energy property is in service; and

(C) For solar energy property that is placed in service after December 31, 2020, four cents multiplied by the number of kilowatt hours produced by the solar energy property and sold by the taxpayer to an unrelated entity 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 the solar energy property is in service.

This approach will be far easier to administer than determining which projects had met certain milestones by what date as currently contemplated by SB 623, SD 2. Moreover, this approach will be good for the general fund. Not only will the transition to a production tax credit in general represent a reduced return to developers of these projects compared to the 24.5% available under the previous tax incentive regime, but it will further benefit the general fund because the value of the credit declines over time with the proposed compromise language above. In addition, the production tax credit is based on the federal 'produced and sold' language and requires systems to produce energy in order to benefit from the tax incentive. Under the production tax credit, the state can be sure it is not paying for energy that is not used or for developing generating capacity that goes unutilized because units are offline due to poor design or construction.

3. Critical Technical Revisions

There are three critical technical revisions that must be made in order to avoid potentially serious or even fatal implementation problems with the legislation. These three technical amendments are: (a) to the definition of "Property"; (b) to the definition of "Basis"; and, (c) to clarify the availability of the credit for utility-scale wind energy property.

(a) Definition of "Property"

This draft of SB 623 rightly attempts to rely on the federal definition of energy "property" in its reform of HRS § 235-12.5 by defining "property" as having "the same meaning as in section 25D, 45, or section 48 of the Internal Revenue Code." Unfortunately, however, "property" is not defined as a stand-alone term in any of those three sections of the IRC, and to the extent it is defined in conjunction with other terms — e.g., "energy property" and "qualified solar electric property expenditure"—the definitions are inconsistent and/or contradictory. For example, "energy property" in Sec. 48 is defined so as to exclude property that is not depreciable, since Sec. 48 only applies to commercial property. This won't work for HRS § 235-12.5, where the definition of property is intended to apply to both residential and commercial property. In any case, SB 623, SD 2 maintains a tie-in to the federal IRC for interpretation of these terms via its section (j), which provides that "The tax credits provided for in this section shall be construed in accordance with Treasury Regulations and judicial interpretations of similar provisions in sections 25D, 45, and 48 of the Internal Revenue Code."

In order to address this technical flaw, we recommend that the definition of "Property" used in SB 623, SD2 be replaced with the following definition:

> "Property" means (i) equipment which uses wind or solar energy to generate electricity; (ii) the construction, reconstruction, or erection of which is completed by the taxpayer, or which is acquired by the taxpayer if the original use of such property commences with the taxpayer.

This proposed definition takes the key elements of the federal law definitions and applies them to HRS § 235-12.5 in a workable manner.

(b) Definition of "Basis"

The second sentence of the definition of "Basis" in SB 623, SD2 should be deleted in order to avoid any conflict with federal law. SB 623, SD2 rightly attempts to follow the existing federal law definitions where possible. The third sentence of the definition of "Basis" fully accomplishes this goal of "following the federal" by stating:

> "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 of 1986, as amended; provided that 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."

However, this approach is jeopardized by the preceding sentence in the definition of "Basis," which states that: "Any cost incurred and paid for the repair, construction, or 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." In fact, federal law—as well as the existing Hawai'i RETITC—allows for costs associated with the construction, installation, and placing in service of the solar or wind energy property to constitute part of the basis. Therefore the second sentence of the definition of "Basis" contradicts the "follow the federal" approach, is contrary to the third sentence of the definition of "Basis," and would severely limit the use of the credit. To resolve this issue, the second sentence of the definition of "Basis" should be deleted.

(c) Clarification of the Credit for Utility Scale Wind Energy Property

It is our understanding that the intent of SB 623, SD2 is not to include a wind tax credit for projects larger than 1 MW. As drafted, however, a larger wind energy project comprised of turbines whose individual rated capacities are below 1 MW would arguably be eligible for an investment tax credit because it is possible that each turbine would be considered separate "property." If the intent of the Committee is to limit the investment tax credit's availability to solar and wind developments in which the overall project is less than one MW in size, the Committee may wish to substitute "not part of a larger wind energy property" in section (a)(4) with "not part of a larger wind energy development". A similar change could be made in section (a)(2) by replacing "not part of a larger solar energy property" with "not part of a larger solar energy development" or "not part of a larger solar energy facility."

Once again we support this bill, and we hope that the technical recommendations offered above may be of some use to the Committee. Thank you for the opportunity to provide this testimony.

Sincerely,

Joshua Powell
Principal & RME

Testimony on Residential Solar Photovoltaic Tax Credits

Position: Support with Reservations- keep the cap high enough to fully support the average power usage of an Hawai i residential customer

Dr. Michael J DeWeert
Chairman, Energy Committee
Environmental Caucus of the Democratic Party of Hawai i

I. Executive Summary

In this document, the cost of installing solar photovoltaic (PV) is compared to the cost of maintaining the status quo and continuing to purchase power, assuming that the current mix of fossil fuels is maintained. The conclusion is clear: installing a solar photovoltaic system to replace some or all of the power currently purchased from the public utility is very cost effective, and can save a typical utility user over $100,000 during the 25-year life of a solar PV array.

This is money that can make a substantial difference in the lives of working-class families, savings that will allow them to fund their children's educations, their own retirements, or to simply pay for a better life. Moreover, the money will not be sent out of our state to pay for imported fossil fuels – it will stay here to provide more local jobs and tax revenues.

Even though the economics seem compelling, the number of empty rooftops on O ahu demonstrates that long-term cost savings alone are inadequate to enable most residents to install solar PV. The up-front costs of installing solar PV are a substantial barrier for hard-working middle-class families. The 4.5-KW PV system to support an average home would cost around $23,000 if paid for in cash, or almost $40,000 if financed – short-term costs that may be out of reach for the middle class. Tax credits can substantially ease this burden, putting solar PV within reach of the average family. Thus, we recommend retaining the 35% tax credit in full, with a cap high enough to meet the needs (a 4.5-KW PV system) of an average Hawai'i residential customer.

The balance of this document presents economic information supporting our recommendation.

II. Rooftop Solar PV Compared to the Status Quo

Status Quo: purchase power with the current mix of fossil fuels

At the time of this writing, the cost of utility-provided electric power on O ahu is approximately $0.32 per KiloWatt-hour (KWH).[i] Prices over the past year have ranged as high as $0.351 / KWH,[ii] and the average for 2012 was about $0.34/KWH. While rates fluctuate from month to month, the long-term trend is up. Over the past decade, the average Hawaii Electric Industries (HEI) residential rate has increased

by an average of 7.85% per year. (See **Figure 1**) This is significantly higher than the increase in the U.S. consumer price index over the same decade, which increased by approximately 2.58% per year.[iii] Assuming this trend continues, we can expect a future real inflation-adjusted rate increase of 5.27%/year (7.85% - 2.58%). Over a 25-year span from 2012 to 2037, the average residential rate would rise from $0.335 to $1.21 per KWH in *real inflation-adjusted (year 2012) dollars*. To pay for these future costs, a typical electric customer purchasing 20 KWH/day would have to set aside *$128,300*. Alternatively, the customer could set aside a lesser amount in investments, and rely on dividends, interest, and capital gains to provide part of the required funds. Table 1 shows the required capital that would have to be set aside versus investment rates of return. At the historical 7% real rate of return of the S&P 500, a residential user would still have to set aside $61,400 in 2012 to pay for future electricity purchases over 25 years. While $61,400 might provide enough investment income to cover inflation, taxes, and rising energy costs, stock market history over the past decade is, to say the least, not encouraging, and the risks are substantial.

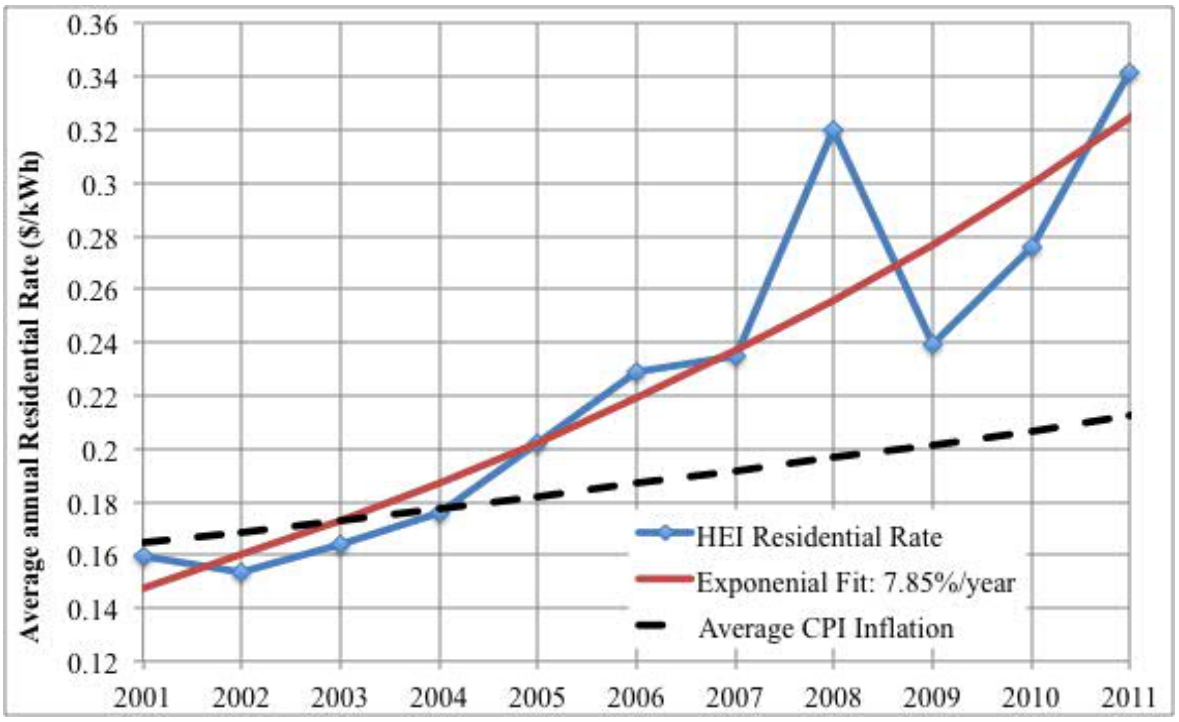


Figure 1. Increase in residential rates per KWH for the decade from 2001-2011.[iv] Rates on O ahu are now about 50% higher than if they had grown only at the same arte as the Consumer Price Index (CPI) over the past decade (dashed line).

Solar Photovoltaic

Instead of continuing to pay for electricity, many customers are opting to install solar PV (Photo-Voltaic) systems and enter into net-metering agreements. A usage of 600 KWH/month amounts to an average power draw of 833 Watts. To replace this power totally with solar PV would require installing a system with a rated maximum capacity of approximately 4.53 KW. This estimate is based on 3 years of historical data for Kailua, O ahu. The system studied has a 3.15KW rated maximum output, and produced an average of 13.9 KWH per day from October 2010 through October 2012, for a mean (averaged over 24 hours) output of 578 Watts. The ratio of 578 Watts/ 3.15 KW =18.4%, is called the *capacity factor* of the system. Since Kailua is neither the sunniest nor the cloudiest part of the island, we take 18.4% to be a representative average for O ahu. Thus, a PV system which can replace an average consumption of 600KWH/month would need to have a rated capacity of 4.53 KW.

The price of solar PV has declined significantly over the past few years. As of June 2011, it was approximately $5/Watt ($5000/KW) installed.[v] At that price, the system to provide an average of 600 KWH/month would cost $22,700. To this must be added either the cost of the net metering agreement, which is currently $17/month. Assuming that the net metering charges rise at the same rate as inflation, 25 years of charges will amount to $5,100 in 2012 dollars, for a total present-day cost of $27,800.

On O ahu, the cost savings from installing solar PV are so great that the rate of return substantially exceeds the likely returns on any other investments.

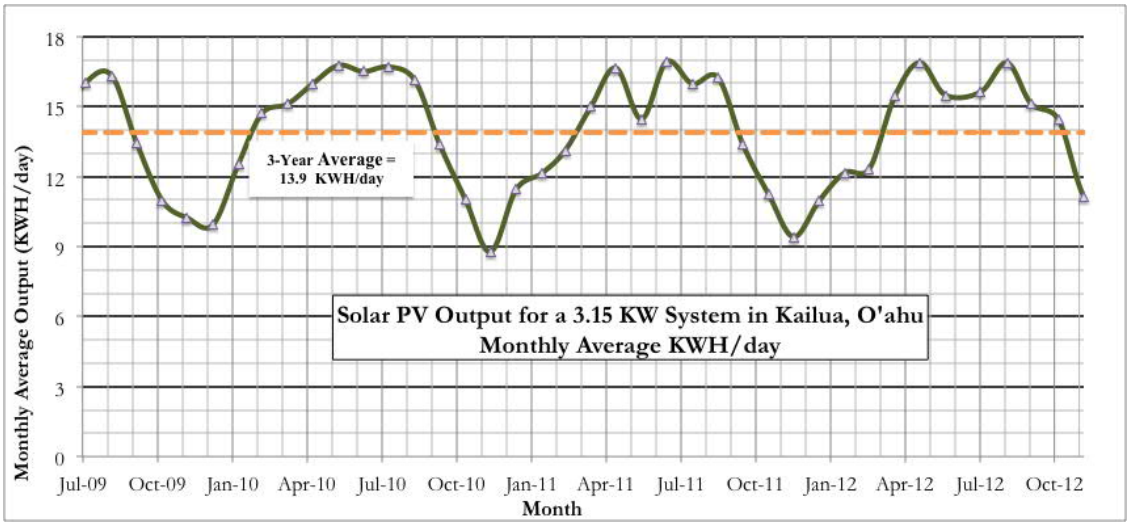


Figure 2. Historical solar-PV output from a rooftop 3.15-KW PV array in Kailua. This array produces an average of 13.9 KWH/day, yielding a capacity factor of 18.4%

Thus, a residential ratepayer consuming 600 KWH/month can expect to save over $100,000 (in 2012 dollars) over the 25-year life of a solar PV system. Even if electric

rate inflation slows down to just match the CPI (Consumer Price Index), the savings would amount to almost $35,000. The cost savings are compelling enough that the rate of return on alternative investments is unlikely to exceed the return on solar PV (See Table 1). To maximize the savings, residential electric power should adopt energy-efficient appliances and lighting , and install solar PV as soon as possible.

Table 1. Estimates of the funds that would have to be set aside in 2012 to pay for future electric purchases, assuming 600 KWH/month residential use, a 28% tax (total federal + state) bracket, and various real rates of return.

Future Real (Inflation-Adjusted) Rate of Return	Required Capital (2012 Dollars)	
	If Electric-Rate Rise Continues 5.3% faster than CPI	If Electric Rates Rise at just the CPI Rate
0%	$ 128,300	$ 62,700
1%	$ 114,300	$ 57,000
2%	$ 102,200	$ 52,000
3%	$ 91,600	$ 47,600
4%	$ 82,500	$ 43,700
5%	$ 74,500	$ 40,300
6%	$ 67,500	$ 37,300
7% *	$ 61,400	$ 34,600
8%	$ 56,000	$ 32,100
9%	$ 51,300	$ 30,000
10%	$ 47,100	$ 28,000

* The 7% rate matches the historical inflation-adjusted return of the S&P 500 from 1950 to 2010, including dividends.[vi]

Cost of Finance

The foregoing analysis of solar PV costs assumes a ratepayer capable of paying the up-front capital cost and installation of a PV system. While some residential rate-payers can afford upfront costs approaching $23K, those who could most benefit from controlling their future electric costs will likely have to finance the purchase. For those with sufficient home equity, a 20-year HELOC (Home Equity Line of Credit) is a likely financing choice. HELOCs are variable-rate loans – the current rate of 4.5% exceeds the CPI inflation rate by 2.3%. If we assume that this rate difference continues in the future, then financing a $22,700 purchase will cost $28,600 in 2012 dollars, bringing the total cost with net-metering charges up to $33,700.

For rate-payers without equity, the only option may be to pay with an unsecured line of credit. Current terms are 84 months at 14%[vii] (11.2% over the CPI), which will cost $33,200, bringing the total cost to $38,300.

While these costs are still significantly less than the cost of purchasing power, they are very substantial, and may not be within the means of the ratepayers who could most benefit.

Tax credits can reduce the net up-front capital costs from $22,700 to under $10,000, bringing solar PV within reach of ratepayers of modest means.

Role of Tax Credits

For homeowners of modest means, the upfront capital costs or financing costs are substantial barriers to accessing the otherwise compelling financial savings from solar PV. Tax credits can substantially ease this burden. For example, a homeowner who can capture a 35% (capped at $5,000) state and 30% (uncapped) federal credits would save $11,800 dollars, reducing the upfront capital investment to $9,900. [viii] The total cost, with net metering, then amounts to $15,000 for 25 years of electricity, providing compelling cost savings for a rate payer who otherwise could face electric bills exceeding $128,000.

---

[i] A. Yonan Jr., "Oahu electric rates hit 9-month low," Honolulu Star-Advertiser, November 23, 2012.

[ii] A. Yonan Jr., "HECO s residential rates edge up in June," Honolulu Star-Advertiser, June 13, 2012.

[iii] Using data from: http://www.usinflationcalculator.com/inflation/consumer-price-index-and-annual-percent-changes-from-1913-to-2008/.

[4] Data are from HECO annual 10-K filings from 2000-2011, and from HECO monthly data for 2012.

[v] Panos Prevedouros, "A Price Point for Solar Panels," Hawaii Reporter, June 15, 2011. Http://www.hawaiireporter.com/a-price-point-for-rooftop-solar-panels/123

[vi] http://www.simplestockinvesting.com/SP500-historical-real-total-returns.htm

[vii] Home Depot Inc. http://www.homedepot.com/webapp/catalog/servlet/ContentView?pn=CC_Home_Depot_Project_Loan&storeId=10051&langId=-1&catalogId=10053/

[viii] A short-term (1-year) loan will be needed while awaiting the relevant tax refunds, which may be available at 0%.

thielen3 - Charles

From: mailinglist@capitol.hawaii.gov
Sent: Sunday, March 10, 2013 1:39 PM
To: EEPtestimony
Cc: jkawata@hawaii.rr.com
Subject: *Submitted testimony for SB623 on Mar 12, 2013 08:30AM*

SB623
Submitted on: 3/10/2013
Testimony for EEP on Mar 12, 2013 08:30AM in Conference Room 325

Submitted By	Organization	Testifier Position	Present at Hearing
Jon Wallenstrom	Forest City Hawaii	Support	No

Comments:

Please note that testimony submitted less than 24 hours prior to the hearing , improperly identified, or directed to the incorrect office, may not be posted online or distributed to the committee prior to the convening of the public hearing.

Do not reply to this email. This inbox is not monitored. For assistance please email webmaster@capitol.hawaii.gov

HOUSE COMMITTEE ON ENERGY AND ENVIRONMENTAL PROTECTION
Tuesday, March 12, 2013 — 8:30 a.m.

TESTIMONY SUPPORTING
SB 623, SD2 RELATING TO RENEWABLE ENERGY

Chair Lee, Vice Chair Thielen, and Members of the Committee:

The Hawaii PV Coalition **supports** SB 623, SD2, which will reform the Renewable Energy Technologies Income Tax Credit ("RETITC") while maintaining the viability of the solar industry. SB 623, SD2 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 depends on imported fossil fuels.

However, there are three critical areas in which SB 623, SD2 should be amended before it can move forward as a viable bill: **first**, the tax credit percentages which were left blank in this version of the bill must be filled in; **second**, section (a)(3) of this bill governing the solar production tax credit should be replaced with compromise language agreed to by industry members; and, **third**, three critical technical amendments must be made to avoid fatal implementation problems with the bill. We respectfully offer suggestions for these three areas below.

1. **Tax Credit Percentages and Cap Amounts Must Be Filled In**

The current version of SB 623 contains blanks in sections (a)(1), (a)(2), and (a)(4) that must be filled in. 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)(4), a cap on the utility-scale wind energy credit of **$500,000**.

2. **Replacement of Production Tax Credit Provisions With Compromise Language**

The current version of SB 623, SD2 contains in section (a)(3) a two-tiered production tax credit rate for projects larger than 1 MW in size. One rate is a "base" rate and the other is a "grandfathered" rate for projects already in process. This differs from HB 497, HD3, which also contained a two-tiered rate for utility scale projects, but differentiated between projects based on whether or not the projects were "competitively bid."

We recommend that section (a)(3) of SB 623, SD2 be replaced with the "compromise" language below, which was agreed to by industry members with divergent views who were asked to work out a compromise solution

amongst themselves. This "compromise" language below eliminates the tiered rate structure and instead steps down the production tax credit over time to mirror the stepped-down investment tax credit provisions of section (a)(2). This "compromise" language for section (a)(3) is as follows:

> (a)(3) For each solar energy property that is used to generate electricity and is one megawatt or larger in alternating current capacity:
>
> (A) For solar energy property that is placed in service on or before December 31, 2016, eight cents multiplied by the number of kilowatt hours produced by the solar energy property and sold by the taxpayer to an unrelated entity 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 the solar energy property is in service;
>
> (B) For solar energy property that is placed in service after December 31, 2016, but on or before December 31, 2020, six cents multiplied by the number of kilowatt hours produced by the solar energy property and sold by the taxpayer to an unrelated entity 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 the solar energy property is in service; and
>
> (C) For solar energy property that is placed in service after December 31, 2020, four cents multiplied by the number of kilowatt hours produced by the solar energy property and sold by the taxpayer to an unrelated entity 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 the solar energy property is in service.

This approach will be far easier to administer than determining which projects had met certain milestones by what date as currently contemplated by SB 623, SD 2. Moreover, this approach will be good for the general fund. Not only will the transition to a production tax credit in general represent a reduced return to developers of these projects compared to the 24.5% available under the previous tax incentive regime, but it will further benefit the general fund because the value of the credit declines over time with the proposed compromise language above. In addition, the production tax credit is based on the federal 'produced and sold' language and requires systems to produce energy in order to benefit from the tax incentive. Under the production tax credit, the state can be sure it is not paying for energy that is not used or for developing generating capacity that goes unutilized because units are offline due to poor design or construction.

3. Critical Technical Revisions

There are three critical technical revisions that must be made in order to avoid potentially serious or even fatal implementation problems with the legislation. These three technical amendments are: (a) to the definition of "Property"; (b) to the definition of "Basis"; and, (c) to clarify the availability of the credit for utility-scale wind energy property.

(a) Definition of "Property"

This draft of SB 623 rightly attempts to rely on the federal definition of energy "property" in its reform of HRS § 235-12.5 by defining "property" as having "the same meaning as in section 25D, 45, or section 48 of the Internal Revenue Code." Unfortunately, however, "property" is not defined as a stand-alone term in any of those three sections of the IRC, and to the extent it is defined in conjunction with other terms — e.g., "energy property" and "qualified solar electric property expenditure"—the definitions are inconsistent and/or contradictory. For example, "energy property" in Sec. 48 is defined so as to exclude property that is not depreciable, since Sec. 48 only applies to commercial property. This won't work for HRS § 235-12.5, where the definition of property is intended to apply to both residential and commercial property. In any case, SB 623, SD 2 maintains a tie-in to the federal IRC for interpretation of these terms via its section (j), which provides that "The tax credits provided for in this section shall be construed in accordance with Treasury Regulations and judicial interpretations of similar provisions in sections 25D, 45, and 48 of the Internal Revenue Code."

In order to address this technical flaw, we recommend that the definition of "Property" used in SB 623, SD2 be replaced with the following definition:

> "Property" means (i) equipment which uses wind or solar energy to generate electricity; (ii) the construction, reconstruction, or erection of which is completed by the taxpayer, or which is acquired by the taxpayer if the original use of such property commences with the taxpayer.

This proposed definition takes the key elements of the federal law definitions and applies them to HRS § 235-12.5 in a workable manner.

(b) Definition of "Basis"

The second sentence of the definition of "Basis" in SB 623, SD2 should be deleted in order to avoid any conflict with federal law. SB 623, SD2 rightly attempts to follow the existing federal law definitions where possible. The third sentence of the definition of "Basis" fully accomplishes this goal of "following the federal" by stating:

> "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 of 1986, as amended; provided that 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."

However, this approach is jeopardized by the preceding sentence in the definition of "Basis," which states that: "Any cost incurred and paid for the repair, construction, or 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." In fact, federal law—as well as the existing Hawai'i RETITC—allows for costs associated with the construction, installation, and placing in service of the solar or wind energy property to constitute part of the basis. Therefore the second sentence of the definition of "Basis" contradicts the "follow the federal" approach, is contrary to the third sentence of the definition of "Basis," and would severely limit the use of the credit. To resolve this issue, the second sentence of the definition of "Basis" should be deleted.

(c) Clarification of the Credit for Utility Scale Wind Energy Property

It is our understanding that the intent of SB 623, SD2 is not to include a wind tax credit for projects larger than 1 MW. As drafted, however, a larger wind energy project comprised of turbines whose individual rated capacities are below 1 MW would arguably be eligible for an investment tax credit because it is possible that each turbine would be considered separate "property." If the intent of the Committee is to limit the investment tax credit's availability to solar and wind developments in which the overall project is less than one MW in size, the Committee may wish to substitute "not part of a larger wind energy property" in section (a)(4) with "not part of a larger wind energy development". A similar change could be made in section (a)(2) by replacing "not part of a larger solar energy property" with "not part of a larger solar energy development" or "not part of a larger solar energy facility."

Once again we support this bill, and we hope that the technical recommendations offered above may be of some use to the Committee. Thank you for the opportunity to provide this testimony.

Mark Duda
President, Hawaii PV Coalition

The Hawaii PV Coalition was formed in 2005 to support the greater use and more rapid diffusion of solar electric applications across the state. Working with business owners, homeowners and local and national stakeholders in the PV industry, the Coalition has been active during the state legislative sessions supporting pro-PV and renewable energy bills and helping inform elected representatives about the benefits of Hawaii-based solar electric applications.

TO: House Committee on Energy and Environmental Protection
Honorable Representative Chris Lee, Chair
Honorable Representative Cynthia Thielen, Vice Chair

RE: Testimony Supporting SB 623 SD2 Relating To Renewable Energy.

Testimony is 2 pages long.

HEARING: Tuesday, March 12, 2013 — 8:30 a.m.

Mr. Chairman and members of the Committee:

Kairos Energy Capital supports SB 623 SD2, which will reform the Renewable Energy Technologies Income Tax Credit ("RETITC") while maintaining the viability of the solar industry. SB 623, SD2 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 depends on imported fossil fuels.

Kairos Energy Capital is a Hawai'i merchant bank that focuses entirely on providing and arranging funding for renewable energy projects. We have become one of the leading experts in Hawai'i in solar project financing.

There are three critical areas in which SB 623 SD2 should be amended:

- first, the tax credit percentages which were left blank in this version of the bill must be filled in;
- second, section (a)(3) of this bill governing the solar production tax credit should be replaced with compromise language agreed to by industry members;
- third, three critical technical amendments must be made to avoid fatal implementation problems with the bill. We respectfully offer suggestions for these three areas below.

1. Tax Credit Percentages and Cap Amounts Must Be Filled In

The current version of SB 623 contains blanks in sections (a)(1), (a)(2), and (a)(4) that must be filled in. 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:

- **Solar thermal** (hot water) tax credit caps For section (a)(1) should be set at:
  - **$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

- **Solar PV** tax credit percentages in section (a)(2) should be set at:
    - **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.
- **Utility-scale wind energy** in section (a)(4) should have a cap on the credit of **$500,000**.

2. Utility Scale Solar Production Tax Credit Provisions Should Use "Compromise" Language

The current version of SB 623 SD2 contains in section (a)(3) a two-tiered production tax credit rate for projects larger than 1 MW in size. One rate is a "base" rate and the other is a "grandfathered" rate for projects already in process. This differs from HB 497 HD3, which also contained a two-tiered rate for utility scale projects, but differentiated between projects based on whether or not the projects were "competitively bid."

We recommend that section (a)(3) of SB 623 SD2 be replaced with the "compromise" language below, which was agreed to by industry members with divergent views who were asked to work out a compromise solution amongst themselves. This "compromise" language below eliminates the tiered rate structure and instead steps down the production tax credit over time to mirror the stepped-down investment tax credit provisions of section (a)(2). This "compromise" language for section (a)(3) is as follows:

> (a)(3) For each solar energy property that is used to generate electricity and is one megawatt or larger in alternating current capacity:
>
> (A) For solar energy property that is placed in service on or before December 31, 2016, eight cents multiplied by the number of kilowatt hours produced by the solar energy property and sold by the taxpayer to an unrelated entity 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 the solar energy property is in service;
>
> (B) For solar energy property that is placed in service after December 31, 2016, but on or before December 31, 2020, six cents multiplied by the number of kilowatt hours produced by the solar energy property and sold by the taxpayer to an unrelated entity 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 the solar energy property is in service; and

(C) For solar energy property that is placed in service after December 31, 2020, four cents multiplied by the number of kilowatt hours produced by the solar energy property and sold by the taxpayer to an unrelated entity 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 the solar energy property is in service.

This approach will be far easier to administer than determining which projects had met certain milestones by what date as currently contemplated by SB 623 SD 2. Moreover, this approach will be good for the general fund. Not only will the transition to a production tax credit in general represent a reduced return to developers of these projects compared to the 24.5% available under the previous tax incentive regime, but it will further benefit the general fund because the value of the credit declines over time with the proposed compromise language above. In addition, the production tax credit is based on the federal 'produced and sold' language and requires systems to produce energy in order to benefit from the tax incentive. Under the production tax credit, the State can be sure it is not paying for energy that is not used or for developing generating capacity that goes unutilized because units are offline due to poor design or construction.

3. Critical Technical Revisions

There are three critical technical revisions that must be made in order to avoid potentially serious or even fatal implementation problems with the legislation. These three technical amendments are: (a) to the definition of "Property"; (b) to the definition of "Basis"; and, (c) to clarify the availability of the credit for utility-scale wind energy property.

(a) Definition of "Property"

This draft of SB 623 rightly attempts to rely on the federal definition of energy "property" in its reform of HRS § 235-12.5 by defining "property" as having "the same meaning as in section 25D, 45, or section 48 of the Internal Revenue Code." Unfortunately, however, "property" is not defined as a stand-alone term in any of those three sections of the IRC, and to the extent it is defined in conjunction with other terms — e.g., "energy property" and "qualified solar electric property expenditure" — the definitions are inconsistent and/or contradictory. For example, "energy property" in Sec. 48 is defined so as to exclude property that is not depreciable, since Sec. 48 only applies to commercial property. This won't work for HRS § 235-12.5, where the definition of property is intended to apply to both residential and commercial property. In any case, SB 623 SD 2 maintains a tie-in to the federal IRC for interpretation of these terms via its section (j), which provides that "The tax credits provided for in this section shall be construed in accordance with Treasury Regulations and judicial interpretations of similar provisions in sections 25D, 45, and 48 of the Internal Revenue Code."

In order to address this technical flaw, we recommend that the definition of "Property" used in SB 623 SD2 be replaced with the following definition:

> "Property" means (i) equipment which uses wind or solar energy to generate electricity; (ii) the construction, reconstruction, or erection of which is completed by the taxpayer, or which is acquired by the taxpayer if the original use of such property commences with the taxpayer.

This proposed definition adopts the key elements of the federal law definitions and applies them to HRS § 235-12.5 in a workable manner.

(b) Definition of "Basis"

The definition of "Basis" on page 7 of SB 623 SD2 has an inherently self-contradictory flaw that should be corrected. The first sentence correctly grants basis in energy property according to its cost, which follows Federal and current Hawai`i law. The second sentence, however, then says that the same cost shall not be allowed in basis. The second sentence should be deleted.

SB 623 SD2 rightly attempts to follow the existing federal law definitions where possible. The third sentence of the definition of "Basis" fully accomplishes this goal of "following the federal" by stating:

> "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 of 1986, as amended; provided that 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."

(c) Clarification of the Credit for Utility Scale Wind Energy Property

It is our understanding that the intent of SB 623 SD2 is not to include a wind tax credit for projects larger than 1 MW. As drafted, however, a larger wind energy project comprised of turbines whose individual rated capacities are below 1 MW would arguably be eligible for an investment tax credit because it is possible that each turbine would be considered separate "property." If the intent of the Committee is to limit the investment tax credit's availability to solar and wind developments in which the overall project is less than 1 MW in size, the Committee may wish to substitute "not part of a larger wind energy property" in section (a)(4) with "not part of a larger wind energy development." A similar change could be made in section (a)(2) by replacing "not part of a larger solar energy property" with "not part of a larger solar energy development" or "not part of a larger solar energy facility."

Kairos Energy Capital supports this bill, and we hope that the technical recommendations offered above may be of some use to the Committee. Thank you for the opportunity to provide this testimony.

Larry Gilbert
Managing Partner
Kairos Energy Capital LLC
55 Merchant Street, Suite 1560
Honolulu, HI 96813
Tel 808 457-1600
Email: LGilbert@kairosenergycapital.com

March 11, 2013

The Honorable Chris Lee, Chairman
House Committee on Energy & Environmental Protection
Hawaii State Capitol, Room 325
Honolulu, HI 96813

RE: Senate Bill 623 SD2 – Renewable Energy; Solar Energy Property; Tax Credit – Support w/ Amendments

Dear Chairman Lee, Vice Chair Thielen, and Committee Members:

Mainstream Energy Corp. supports SB 623 SD2, which will reform the Renewable Energy Technologies Income Tax Credit (RETITC) while maintaining the viability of Hawaii's solar industry. SB 623 SD2 will save tens of millions in tax credit-related outlays, while continuing to promote solar energy technologies that will allow Hawaii to reach its clean energy goals and reduce dependence on imported fuels.

Mainstream Energy Corp. is the parent company of REC Solar, a national installer of grid-tied residential, commercial, government, and utility solar, and AEE Solar, one of the country's largest distributors of renewable energy equipment. Our companies have a presence in all major solar markets and employ more than 800 people. We've installed more than seven megawatts of commercial systems in Hawaii – for schools, public buildings, retailers, and utilities – and have more than sixteen megawatts under construction. Changes to current RETITC structure will have a major impact on these and future projects.

As you've heard from other stakeholders, there are three critical areas in which SB 623 SD2 should be amended before it can move forward as a viable bill: **first,** the tax credit percentages which are blank in this version of the bill must be filled in; **second, three technical amendments must be made to avoid fatal implementation problems including potential negative retroactive impacts to solar projects currently under construction;** and, **third,** section (a)(3) of this bill governing the solar production tax credit should be replaced with compromise language agreed to by industry members. We offer suggestions for these three areas below.

1. Tax Credit Percentages and Cap Amounts Must Be Filled In

The current version of SB 623 contains blanks in sections (a)(1), (a)(2), and (a)(4). 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)(4), a cap on the utility-scale wind energy credit of **$500,000**.

2. Critical Technical Revisions

There are three critical technical revisions that must be made in order to avoid potentially serious or even fatal implementation problems with this legislation. These three amendments are: (a) to clarify how this legislation would be phased in relative to existing RETITC administrative rules to avoid retroactive impacts for solar projects placed in service in 2013; (b) the definition of 'property;' (c) the definition of 'basis.'

(a) Clarification to avoid retroactive impacts to solar projects placed in service in 2013.

SB 623 SD2 is currently written to apply to taxable years beginning after December 31, 2012. In its current form, the bill modifies the RETITC for systems placed in service between December 31, 2012 and January 1, 2014 relative to the existing Temporary Administrative Rules (published by DoTax in November 2012). As a result, this bill creates retroactive impacts to solar projects placed in service during 2013. Owners of systems currently under construction have assumed they would qualify for tax credit amounts provided by existing DoTax temporary administrative rules. When those systems are placed in service later this year, if they qualify for a different amount of tax credit under the terms in this bill, it could have a negative impact on businesses and homeowners. To avoid this, we suggest that following language from the initial version of SB 623 be re-inserted into the bill draft:

> "For solar energy properties placed in service after December 31, 2012, and before January 1, 2014, a taxpayer may elect tax credits under this section or under the department's temporary administrative rules that became effective on January 1, 2013."

(b) Definition of Property

This draft of SB 623 rightly attempts to rely on the federal definition of energy 'property' in its reform of HRS § 235-12.5 by defining 'property' as having "the same meaning as in section 25D, 45, or section 48 of the Internal Revenue Code." Unfortunately, however, 'property' is not defined as a stand-alone term in any of those three sections of the IRC, and to the extent it is defined in conjunction with other terms — e.g., 'energy property' and 'qualified solar electric property expenditure' — the definitions are inconsistent and/or contradictory. In order to address this technical flaw, we recommend that the definition of 'property' used in SB 623 SD2 be replaced with the following definition:

> "Property" means (i) equipment which uses wind or solar energy to generate electricity; (ii) the construction, reconstruction, or erection of which is completed by the taxpayer, or which is acquired by the taxpayer if the original use of such property commences with the taxpayer.

This proposed definition takes the key elements of the federal law definitions and applies them to HRS § 235-12.5 in a workable manner.

(c) Definition of Basis

The second sentence of the definition of 'basis' in SB 623 SD2 should be deleted in order to avoid any conflict with federal law. Again, SB 623 SD2 rightly attempts to follow existing federal statutory definitions where possible. The third sentence of the definition of 'basis' seeks to accomplish this goal by stating:

> "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 of 1986, as amended; provided that 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."

However, this approach is jeopardized by the preceding sentence in the definition of 'basis,' which states: "Any cost incurred and paid for the repair, construction, or 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" (emphasis ours). In fact, federal law – as well as the existing RETITC – allows for costs associated with construction, installation, and placing in service of solar energy property to constitute part of the basis. Therefore the second sentence of the definition of 'basis' does not conform to federal law, is contrary to the third sentence of the definition of 'basis,' and would severely limit the use of the credit. To resolve this important issue, the second sentence of the definition of 'basis' should be deleted.

3. Replacement of Production Tax Credit Provisions With Compromise Language

The current version of SB 623 SD2 contains in section (a)(3) a two-tiered production tax credit for projects larger than 1 MW in size. One rate is a "base" rate and the other is a 'grandfathered' rate for projects already in process. This differs from HB 497 HD3, which also contained a two-tiered rate for utility scale projects, but differentiated between projects based on whether or not the projects were competitively-bid.

We recommend that section (a)(3) of SB 623 SD2 be replaced with the compromise language below, which was agreed to by industry members with divergent views who were asked to work out a compromise solution. This compromise language below eliminates the tiered-rate structure and instead steps down the production tax credit over time to mirror the stepped-down investment tax credit provisions of section (a)(2). This compromise language for section (a)(3) is as follows:

> (a)(3) For each solar energy property that is used to generate electricity and is one megawatt or larger in alternating current capacity:
>
> (A) For solar energy property that is placed in service on or before December 31, 2016, eight cents multiplied by the number of kilowatt hours produced by the solar energy property and sold by the taxpayer to an unrelated entity 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 the solar energy property is in service;
>
> (B) For solar energy property that is placed in service after December 31, 2016, but on or before December 31, 2020, six cents multiplied by the number of kilowatt hours produced by the solar energy property and sold by the taxpayer to an unrelated entity during the taxable year, or produced by the solar energy property and used on-site to offset the

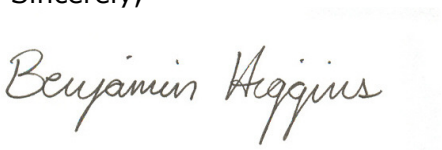
site's demand for electricity during the taxable year, for the first ten years the solar energy property is in service; and

(C) For solar energy property that is placed in service after December 31, 2020, four cents multiplied by the number of kilowatt hours produced by the solar energy property and sold by the taxpayer to an unrelated entity 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 the solar energy property is in service.

This approach will be far easier to administer than determining which projects had met certain milestones by a given date, as currently contemplated by SB 623 SD2. In addition, the production tax credit is based on federal 'produced and sold' language and requires systems to produce energy in order to benefit from the tax incentive. With a production tax credit, the State can be sure it is not supporting the development of generating capacity which is offline and unutilized (due to substandard design or construction, or other factors) or not producing the expected level of electricity.

Again, Mainstream Energy Corp., REC Solar, and AEE Solar support SB 623 SD2 with amendments, and we appreciate your leadership in renewable energy issues. Thank you for the opportunity to provide this testimony.

Sincerely,



Benjamin L. Higgins
Director of Government Affairs

The Pacific Resource PARTNERSHIP

Comments by Cindy McMillan
The Pacific Resource Partnership

House Committee on Energy & Environmental Protection
Representative Chris Lee, Chair
Representative Cynthia Thielen, Vice Chair

House Committee on Health
Representative Della Au Belatti, Chair
Representative Dee Morikawa, Vice Chair

SB 623, SD2 – Relating to Renewable Energy
Tuesday, March 12, 2013
8:30 am
Conference Room 325

Aloha Chairs Lee and Au Belatti, Vice Chairs Thielen and Morikawa, and Members of the Committees:

The Pacific Resource Partnership (PRP) is a labor-management consortium representing over 240 signatory contractors and the Hawaii Regional Council of Carpenters.

PRP **supports** SB 623, SD2, which will make needed reforms to the Renewable Energy Technologies Income Tax Credit ("RETITC") to reduce the credit's cost to the State. We believe that the passage of this bill will lead to a higher level of renewable energy installation while reducing the cost to the State. In doing so, it will maximize the use of State tax dollars and keep Hawai'i on the path to achieving its clean energy goals by 2030.

We respectfully ask that the bill be amended in three very important areas:

1. For discussion purposes, the tax credit percentages were left blank. 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:

    a. For section (a)(1), solar thermal tax credit caps in the amounts of:
        i. $2,500 per property for single-family residential property;
        ii. $500 per unit per property for multi-family residential property;
        iii. $250,000 per property for commercial property
    b. For section (a)(2), solar tax credit percentages in the amounts of:

1100 Alakea Street • Alakea Corporate Tower, 4th Floor • Honolulu, HI 96813
Tel (808) 528-5557 • Fax (808) 528-0421 • www.prp-hawaii.com

i. 30% for property placed in service after December 31, 2012 and before January 1, 2014;
ii. 25% for property placed in service after December 31, 2013 and before January 1, 2016;
iii. 20% for property placed in service after December 31, 2015 and before January 1, 2018;
iv. 15% for property placed in service after December 31, 2017.

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

2. The industry has agreed to and suggests the following compromise language replace section (a)(3) in order to eliminate the tiered rate structure and instead step down the production tax credit over time and mirrors the stepped-down investment tax credit provisions of section (a)(2):

> (a)(3) For each solar energy property that is used to generate electricity and is one megawatt or larger in alternating current capacity:
>
> (A) For solar energy property that is placed in service on or before December 31, 2016, eight cents multiplied by the number of kilowatt hours produced by the solar energy property and sold by the taxpayer to an unrelated entity 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 the solar energy property is in service;
>
> (B) For solar energy property that is placed in service after December 31, 2016, but on or before December 31, 2020, six cents multiplied by the number of kilowatt hours produced by the solar energy property and sold by the taxpayer to an unrelated entity 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 the solar energy property is in service; and
>
> (C) For solar energy property that is placed in service after December 31, 2020, four cents multiplied by the number of kilowatt hours produced by the solar energy property and sold by the taxpayer to an unrelated entity 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 the solar energy property is in service.

3. Three technical amendments are needed to avoid potentially serious or even fatal implementation issues. Our recommendations on these three issues follow:

a. **Definition of "Property"** – This draft of SB 623 rightly attempts to rely on the federal definition of energy "property" in its reform of HRS § 235-12.5 by defining "property" as having "the same meaning as in section 25D, 45, or section 48 of the Internal Revenue Code." Unfortunately, however, "property" is not defined as a stand-alone term in any of those three sections of the IRC, and to the extent it is defined in conjunction with other terms — e.g., "energy property" and "qualified solar electric property expenditure" — the definitions are inconsistent and/or contradictory. For example, "energy property" in Sec. 48 is defined so as to exclude property that is not depreciable, since Sec. 48 only applies to commercial property. This won't work for

HRS § 235-12.5, where the definition of property is intended to apply to both residential and commercial property. In any case, SB 623 SD 2 maintains a tie-in to the federal IRC for interpretation of these terms via its section (j), which provides that "The tax credits provided for in this section shall be construed in accordance with Treasury Regulations and judicial interpretations of similar provisions in sections 25D, 45, and 48 of the Internal Revenue Code."

In order to address this technical flaw, we recommend that the definition of "Property" used in SB 623 SD2 be replaced with the following definition:

"Property" means (i) equipment which uses wind or solar energy to generate electricity; (ii) the construction, reconstruction, or erection of which is completed by the taxpayer, or which is acquired by the taxpayer if the original use of such property commences with the taxpayer.

This proposed definition takes the key elements of the federal law definitions and applies them to HRS § 235-12.5 in a workable manner.

b. **Definition of "Basis"** – The second sentence of the definition of "Basis" in SB 623 SD2 should be deleted in order to avoid any conflict with federal law. SB 623 SD2 rightly attempts to follow the existing federal law definitions where possible. The third sentence of the definition of "Basis" fully accomplishes this goal of "following the federal" by stating:

"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 of 1986, as amended; provided that 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."

However, this approach is jeopardized by the preceding sentence in the definition of "Basis," which states that: "Any cost incurred and paid for the repair, construction, or 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." In fact, federal law – as well as the existing Hawai'i RETITC – allows for costs associated with the construction, installation, and placing in service of the solar or wind energy property to constitute part of the basis. Therefore the second sentence of the definition of "Basis" contradicts the "follow the federal" approach, is contrary to the third sentence of the definition of "Basis," and would severely limit the use of the credit. To resolve this issue, the second sentence of the definition of "Basis" should be deleted.

c. Clarification of the Credit for Utility Scale Wind Energy Property – It is our understanding that the intent of SB 623 SD2 is not to include a wind tax credit for projects larger than 1 MW. As drafted, however, a larger wind energy project comprised of turbines whose individual rated capacities are below 1 MW would arguably be eligible for an investment tax credit because it is possible that each turbine would be considered separate "property." If the intent of the Committee is to limit the investment tax credit's availability to solar and wind developments in which the overall

project is less than 1 MW in size, the Committee may wish to substitute "not part of a larger wind energy property" in section (a)(4) with "not part of a larger wind energy development." A similar change could be made in section (a)(2) by replacing "not part of a larger solar energy property" with "not part of a larger solar energy development" or "not part of a larger solar energy facility."

We offer these recommendations will make the RETITC program viable, allowing the State to save 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 depends on imported fossil fuels.

Thank you for the opportunity to provide our input on this important issue.

Pacific Renewable Partners Corporation

HOUSE COMMITTEE ON ENERGY AND ENVIRONMENTAL PROTECTION
Tuesday, March 12, 2013 — 8:30 a.m.

TESTIMONY SUPPORTING SB 623 SD2 RELATING TO RENEWABLE ENERGY

Chair Lee, Vice Chair Thielen, and Members of the Committee:

Paul Shinkawa **supports** SB 623 SD2, which will reform the Renewable Energy Technologies Income Tax Credit ("RETITC") while maintaining the viability of the solar industry. SB 623, SD2 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 depends on imported fossil fuels.

However, there are three critical areas in which SB 623 SD2 should be amended before it can move forward as a viable bill: **first**, the tax credit percentages which were left blank in this version of the bill must be filled in; **second**, section (a)(3) of this bill governing the solar production tax credit should be replaced with compromise language agreed to by industry members; and, **third**, three critical technical amendments must be made to avoid fatal implementation problems with the bill. We respectfully offer suggestions for these three areas below.

1. Tax Credit Percentages and Cap Amounts Must Be Filled In

The current version of SB 623 contains blanks in sections (a)(1), (a)(2), and (a)(4) that must be filled in. 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)(4), a cap on the utility-scale wind energy credit of **$500,000**.

2. Replacement of Production Tax Credit Provisions With Compromise Language

The current version of SB 623 SD2 contains in section (a)(3) a two-tiered production tax credit rate for projects larger than 1 MW in size. One rate is a "base" rate and the other is a "grandfathered" rate for projects already in process. This differs from HB 497 HD3, which also contained a two-tiered rate for utility scale projects, but differentiated between projects based on whether or not the projects were "competitively bid."

We recommend that section (a)(3) of SB 623 SD2 be replaced with the "compromise" language below, which was agreed to by industry members with divergent views who were asked to work out a compromise solution amongst themselves. This "compromise" language below eliminates the tiered rate structure and instead steps down the production tax credit over time to mirror the stepped-down investment tax credit provisions of section (a)(2). This "compromise" language for section (a)(3) is as follows:

> (a)(3) For each solar energy property that is used to generate electricity and is one megawatt or larger in alternating current capacity:
>
> (A) For solar energy property that is placed in service on or before December 31, 2016, eight cents multiplied by the number of kilowatt hours produced by the solar energy property and sold by the taxpayer to an unrelated entity 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 the solar energy property is in service;
>
> (B) For solar energy property that is placed in service after December 31, 2016, but on or before December 31, 2020, six cents multiplied by the number of kilowatt hours produced by the solar energy property and sold by the taxpayer to an unrelated entity 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 the solar energy property is in service; and
>
> (C) For solar energy property that is placed in service after December 31, 2020, four cents multiplied by the number of kilowatt hours produced by the solar energy property and sold by the taxpayer to an unrelated entity 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 the solar energy property is in service.

This approach will be far easier to administer than determining which projects had met certain milestones by what date as currently contemplated by SB 623 SD 2. Moreover, this approach will be good for the general fund. Not only will the transition to a production tax credit in general represent a reduced return to developers of these projects compared to the 24.5% available under the previous tax incentive regime, but it will further benefit the general fund because the value of the credit declines over time with the proposed compromise language above. In addition, the production tax credit is based on the federal 'produced and sold' language and requires systems to produce energy in order to benefit from the tax incentive. Under the production tax credit, the State can be sure it is not paying for energy that is not used or for developing generating capacity that goes unutilized because units are offline due to poor design or construction.

3. Critical Technical Revisions

There are three critical technical revisions that must be made in order to avoid potentially serious or even fatal implementation problems with the legislation. These three technical amendments are: (a) to the definition of "Property"; (b) to the definition of "Basis"; and, (c) to clarify the availability of the credit for utility-scale wind energy property.

(a) Definition of "Property"

This draft of SB 623 rightly attempts to rely on the federal definition of energy "property" in its reform of HRS § 235-12.5 by defining "property" as having "the same meaning as in section 25D, 45, or section 48 of the Internal Revenue Code." Unfortunately, however, "property" is not defined as a stand-alone term in any of those three sections of the IRC, and to the extent it is defined in conjunction with other terms — e.g., "energy property" and "qualified solar electric property expenditure" — the definitions are inconsistent and/or contradictory. For example, "energy property" in Sec. 48 is defined so as to exclude property that is not depreciable, since Sec. 48 only applies to commercial property. This won't work for HRS § 235-12.5, where the definition of property is intended to apply to both residential and commercial property. In any case, SB 623 SD 2 maintains a tie-in to the federal IRC for interpretation of these terms via its section (j), which provides that "The tax credits provided for in this section shall be construed in accordance with Treasury Regulations and judicial interpretations of similar provisions in sections 25D, 45, and 48 of the Internal Revenue Code."

In order to address this technical flaw, we recommend that the definition of "Property" used in SB 623 SD2 be replaced with the following definition:

> <u>"Property" means (i) equipment which uses wind or solar energy to generate electricity; (ii) the construction, reconstruction, or erection of which is completed by the taxpayer, or which is acquired by the taxpayer if the original use of such property commences with the taxpayer.</u>

This proposed definition takes the key elements of the federal law definitions and applies them to HRS § 235-12.5 in a workable manner.

(**b) Definition of "Basis"**

The second sentence of the definition of "Basis" in SB 623 SD2 should be deleted in order to avoid any conflict with federal law. SB 623 SD2 rightly attempts to follow the existing federal law definitions where possible. The third sentence of the definition of "Basis" fully accomplishes this goal of "following the federal" by stating:

> "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 of 1986, as amended; provided that 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."

However, this approach is jeopardized by the preceding sentence in the definition of "Basis," which states that: "Any cost incurred and paid for the repair, construction, or 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." In fact, federal law – as well as the existing Hawai'i RETITC – allows for costs associated with the construction, installation, and placing in service of the solar or wind energy property to constitute part of the basis. Therefore the second sentence of the definition of "Basis" contradicts the "follow the federal" approach, is contrary to the third sentence of the definition of "Basis," and would severely limit the use of the credit. To resolve this issue, the second sentence of the definition of "Basis" should be deleted.

(c) Clarification of the Credit for Utility Scale Wind Energy Property

It is our understanding that the intent of SB 623 SD2 is not to include a wind tax credit for projects larger than 1 MW. As drafted, however, a larger wind energy project comprised of turbines whose individual rated capacities are below 1 MW would arguably be eligible for an investment tax credit because it is possible that each turbine would be considered separate "property." If the intent of the Committee is to limit the investment tax credit's availability to solar and wind developments in which the overall project is less than 1 MW in size, the Committee may wish to substitute "not part of a larger wind energy property" in section (a)(4) with "not part of a larger wind energy development." A similar change could be made in section (a)(2) by replacing "not part of a larger solar energy property" with "not part of a larger solar energy development" or "not part of a larger solar energy facility."

Once again we support this bill, and we hope that the technical recommendations offered above may be of some use to the Committee. Thank you for the opportunity to provide this testimony.

Thank you & Aloha,

Paul Shinkawa

HOUSE COMMITTEE ON ENERGY AND ENVIRONMENTAL PROTECTION
Tuesday, March 12, 2013 — 8:30 a.m.

TESTIMONY SUPPORTING SB 623, SD2 RELATING TO RENEWABLE ENERGY

Chair Lee, Vice Chair Thielen, and Members of the Committee:

RevoluSun **supports** SB 623, SD2, which will reform the Renewable Energy Technologies Income Tax Credit ("RETITC") while maintaining the viability of the solar industry. SB 623, SD2 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 depends on imported fossil fuels.

However, there are three critical areas in which SB 623, SD2 should be amended before it can move forward as a viable bill: **first**, the tax credit percentages which were left blank in this version of the bill must be filled in; **second**, section (a)(3) of this bill governing the solar production tax credit should be replaced with compromise language agreed to by industry members; and, **third**, three critical technical amendments must be made to avoid fatal implementation problems with the bill. We respectfully offer suggestions for these three areas below.

1. **Tax Credit Percentages and Cap Amounts Must Be Filled In**

The current version of SB 623 contains blanks in sections (a)(1), (a)(2), and (a)(4) that must be filled in. 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)(4), a cap on the utility-scale wind energy credit of **$500,000**.

2. Replacement of Production Tax Credit Provisions With Compromise Language

The current version of SB 623, SD2 contains in section (a)(3) a two-tiered production tax credit rate for projects larger than 1 MW in size. One rate is a "base" rate and the other is a "grandfathered" rate for projects already in process. This differs from HB 497, HD3, which also contained a two-tiered rate for utility scale projects, but differentiated between projects based on whether or not the projects were "competitively bid."

We recommend that section (a)(3) of SB 623, SD2 be replaced with the "compromise" language below, which was agreed to by industry members with divergent views who were asked to work out a compromise solution amongst themselves. This "compromise" language below eliminates the tiered rate structure and instead steps down the production tax credit over time to mirror the stepped-down investment tax credit provisions of section (a)(2). This "compromise" language for section (a)(3) is as follows:

(a)(3) For each solar energy property that is used to generate electricity and is one megawatt or larger in alternating current capacity:

(A) For solar energy property that is placed in service on or before December 31, 2016, eight cents multiplied by the number of kilowatt hours produced by the solar energy property and sold by the taxpayer to an unrelated entity 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 the solar energy property is in service;

(B) For solar energy property that is placed in service after December 31, 2016, but on or before December 31, 2020, six cents multiplied by the number of kilowatt hours produced by the solar energy property and sold by the taxpayer to an unrelated entity 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 the solar energy property is in service; and

(C) For solar energy property that is placed in service after December 31, 2020, four cents multiplied by the number of kilowatt hours produced by the solar energy property and sold by the taxpayer to an unrelated entity 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 the solar energy property is in service.

This approach will be far easier to administer than determining which projects had met certain milestones by what date as currently contemplated by SB 623, SD 2. Moreover, this approach will be good for the general fund. Not only will the transition to a production tax credit in general represent a reduced return to developers of these projects compared to the 24.5% available under the previous tax incentive regime, but it will further benefit the general fund because the value of the credit declines over time with the proposed compromise language above. In addition, the production tax credit is based on the federal 'produced and sold' language and requires systems to produce energy in order to benefit from the tax incentive. Under the production tax credit, the state can be sure it is not paying for energy that is not used or for developing generating capacity that goes unutilized because units are offline due to poor design or construction.

3. Critical Technical Revisions

There are three critical technical revisions that must be made in order to avoid potentially serious or even fatal implementation problems with the legislation. These three technical amendments are: (a) to the definition of "Property"; (b) to the definition of "Basis"; and, (c) to clarify the availability of the credit for utility-scale wind energy property.

(a) Definition of "Property"

This draft of SB 623 rightly attempts to rely on the federal definition of energy "property" in its reform of HRS § 235-12.5 by defining "property" as having "the same meaning as in section 25D, 45, or section 48 of the Internal Revenue Code." Unfortunately, however, "property" is not defined as a stand-alone term in any of those three sections of the IRC, and to the extent it is defined in conjunction with other terms — e.g., "energy property" and "qualified solar electric property expenditure"—the definitions are inconsistent and/or contradictory. For example, "energy property" in Sec. 48 is defined so as to exclude property that is not depreciable, since Sec. 48 only applies to commercial property. This won't work for HRS § 235-12.5, where the definition of property is intended to apply to both residential and commercial property. In any case, SB 623, SD 2 maintains a tie-in to the federal IRC for interpretation of these terms via its section (j), which provides that "The tax credits provided for in this section shall be construed in accordance with Treasury Regulations and judicial interpretations of similar provisions in sections 25D, 45, and 48 of the Internal Revenue Code."

In order to address this technical flaw, we recommend that the definition of "Property" used in SB 623, SD2 be replaced with the following definition:

> "Property" means (i) equipment which uses wind or solar energy to generate electricity; (ii) the construction, reconstruction, or erection of which is completed by the taxpayer, or which is acquired by the taxpayer if the original use of such property commences with the taxpayer.

This proposed definition takes the key elements of the federal law definitions and applies them to HRS § 235-12.5 in a workable manner.

(b) Definition of "Basis"

The second sentence of the definition of "Basis" in SB 623, SD2 should be deleted in order to avoid any conflict with federal law. SB 623, SD2 rightly attempts to follow the existing federal law definitions where possible. The third sentence of the definition of "Basis" fully accomplishes this goal of "following the federal" by stating:

> "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 of 1986, as amended; provided that 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."

However, this approach is jeopardized by the preceding sentence in the definition of "Basis," which states that: "Any cost incurred and paid for the repair, construction, or 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." In fact, federal law—as well as the existing Hawai'i RETITC—allows for costs associated with the construction, installation, and placing in service of the solar or wind energy property to constitute part of the basis. Therefore the second sentence of the definition of "Basis" contradicts the "follow the federal" approach, is contrary to the third sentence of the definition of "Basis," and would severely limit the use of the credit. To resolve this issue, the second sentence of the definition of "Basis" should be deleted.

(c) Clarification of the Credit for Utility Scale Wind Energy Property

It is our understanding that the intent of SB 623, SD2 is not to include a wind tax credit for projects larger than 1 MW. As drafted, however, a larger wind energy project comprised of turbines whose individual rated capacities are below 1 MW would arguably be eligible for an investment tax credit because it is possible that each turbine would be considered separate "property." If the intent of the Committee is to limit the investment tax credit's availability to solar and wind developments in which the overall project is less than one MW in size, the Committee may wish to substitute "not part of a larger wind energy property" in section (a)(4) with "not part of a larger wind energy development". A similar change could be made in section (a)(2) by replacing "not part of a larger solar energy property" with "not part of a larger solar energy development" or "not part of a larger solar energy facility."

Once again we support this bill, and we hope that the technical recommendations offered above may be of some use to the Committee. Thank you for the opportunity to provide this testimony.

Sincerely,

Colin Yost
Principal & General Counsel

RISINGSUN SOLAR+ELECTRIC

HOUSE COMMITTEE ON ENERGY AND ENVIRONMENTAL PROTECTION
Tuesday, March 12, 2013 — 8:30 a.m.

TESTIMONY SUPPORTING SB 623 SD2 RELATING TO RENEWABLE ENERGY

Chair Lee, Vice Chair Thielen, and Members of the Committee:

Rising Sun Solar **supports** SB 623 SD2, which will reform the Renewable Energy Technologies Income Tax Credit ("RETITC") while maintaining the viability of the solar industry. SB 623, SD2 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 depends on imported fossil fuels.

However, there are three critical areas in which SB 623 SD2 should be amended before it can move forward as a viable bill: **first**, the tax credit percentages which were left blank in this version of the bill must be filled in; **second**, section (a)(3) of this bill governing the solar production tax credit should be replaced with compromise language agreed to by industry members; and, **third**, three critical technical amendments must be made to avoid fatal implementation problems with the bill. We respectfully offer suggestions for these three areas below.

1. Tax Credit Percentages and Cap Amounts Must Be Filled In

The current version of SB 623 contains blanks in sections (a)(1), (a)(2), and (a)(4) that must be filled in. 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)(4), a cap on the utility-scale wind energy credit of **$500,000**.

810 Kokomo Road Ste 160 Haiku HI 96708
P 808 575 2202, F 808 575 9878
www.risingsunsolar.com

2. Replacement of Production Tax Credit Provisions With Compromise Language

The current version of SB 623 SD2 contains in section (a)(3) a two-tiered production tax credit rate for projects larger than 1 MW in size. One rate is a "base" rate and the other is a "grandfathered" rate for projects already in process. This differs from HB 497 HD3, which also contained a two-tiered rate for utility scale projects, but differentiated between projects based on whether or not the projects were "competitively bid."

We recommend that section (a)(3) of SB 623 SD2 be replaced with the "compromise" language below, which was agreed to by industry members with divergent views who were asked to work out a compromise solution amongst themselves. This "compromise" language below eliminates the tiered rate structure and instead steps down the production tax credit over time to mirror the stepped-down investment tax credit provisions of section (a)(2). This "compromise" language for section (a)(3) is as follows:

> (a)(3) For each solar energy property that is used to generate electricity and is one megawatt or larger in alternating current capacity:
>
> (A) For solar energy property that is placed in service on or before December 31, 2016, eight cents multiplied by the number of kilowatt hours produced by the solar energy property and sold by the taxpayer to an unrelated entity 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 the solar energy property is in service;
>
> (B) For solar energy property that is placed in service after December 31, 2016, but on or before December 31, 2020, six cents multiplied by the number of kilowatt hours produced by the solar energy property and sold by the taxpayer to an unrelated entity 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 the solar energy property is in service; and
>
> (C) For solar energy property that is placed in service after December 31, 2020, four cents multiplied by the number of kilowatt hours produced by the solar energy property and sold by the taxpayer to an unrelated entity 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 the solar energy property is in service.

810 Kokomo Road Ste 160 Haiku HI 96708
P 808 575 2202, F 808 575 9878
www.risingsunsolar.com

This approach will be far easier to administer than determining which projects had met certain milestones by what date as currently contemplated by SB 623 SD 2. Moreover, this approach will be good for the general fund. Not only will the transition to a production tax credit in general represent a reduced return to developers of these projects compared to the 24.5% available under the previous tax incentive regime, but it will further benefit the general fund because the value of the credit declines over time with the proposed compromise language above. In addition, the production tax credit is based on the federal 'produced and sold' language and requires systems to produce energy in order to benefit from the tax incentive. Under the production tax credit, the State can be sure it is not paying for energy that is not used or for developing generating capacity that goes unutilized because units are offline due to poor design or construction.

3. Critical Technical Revisions

There are three critical technical revisions that must be made in order to avoid potentially serious or even fatal implementation problems with the legislation. These three technical amendments are: (a) to the definition of "Property"; (b) to the definition of "Basis"; and, (c) to clarify the availability of the credit for utility-scale wind energy property.

(a) Definition of "Property"

This draft of SB 623 rightly attempts to rely on the federal definition of energy "property" in its reform of HRS § 235-12.5 by defining "property" as having "the same meaning as in section 25D, 45, or section 48 of the Internal Revenue Code." Unfortunately, however, "property" is not defined as a stand-alone term in any of those three sections of the IRC, and to the extent it is defined in conjunction with other terms — e.g., "energy property" and "qualified solar electric property expenditure" — the definitions are inconsistent and/or contradictory. For example, "energy property" in Sec. 48 is defined so as to exclude property that is not depreciable, since Sec. 48 only applies to commercial property. This won't work for HRS § 235-12.5, where the definition of property is intended to apply to both residential and commercial property. In any case, SB 623 SD 2 maintains a tie-in to the federal IRC for interpretation of these terms via its section (j), which provides that "The tax credits provided for in this section shall be construed in accordance with Treasury Regulations and judicial interpretations of similar provisions in sections 25D, 45, and 48 of the Internal Revenue Code."

In order to address this technical flaw, we recommend that the definition of "Property" used in SB 623 SD2 be replaced with the following definition:

> "Property" means (i) equipment which uses wind or solar energy to generate electricity; (ii) the construction, reconstruction, or erection of which is

completed by the taxpayer, or which is acquired by the taxpayer if the original use of such property commences with the taxpayer.

This proposed definition takes the key elements of the federal law definitions and applies them to HRS § 235-12.5 in a workable manner.

Thank you kindly for your time and consideration,

Bradley Albert
Owner, Rising Sun Solar

810 Kokomo Road Ste 160 Haiku HI 96708
P 808 575 2202, F 808 575 9878
www.risingsunsolar.com

(b) Definition of "Basis"

The second sentence of the definition of "Basis" in SB 623 SD2 should be deleted in order to avoid any conflict with federal law. SB 623 SD2 rightly attempts to follow the existing federal law definitions where possible. The third sentence of the definition of "Basis" fully accomplishes this goal of "following the federal" by stating:

> "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 of 1986, as amended; provided that 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."

However, this approach is jeopardized by the preceding sentence in the definition of "Basis," which states that: "Any cost incurred and paid for the repair, construction, or 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." In fact, federal law – as well as the existing Hawai'i RETITC – allows for costs associated with the construction, installation, and placing in service of the solar or wind energy property to constitute part of the basis. Therefore the second sentence of the definition of "Basis" contradicts the "follow the federal" approach, is contrary to the third sentence of the definition of "Basis," and would severely limit the use of the credit. To resolve this issue, the second sentence of the definition of "Basis" should be deleted.

(c) Clarification of the Credit for Utility Scale Wind Energy Property

It is our understanding that the intent of SB 623 SD2 is not to include a wind tax credit for projects larger than 1 MW. As drafted, however, a larger wind energy project comprised of turbines whose individual rated capacities are below 1 MW would arguably be eligible for an investment tax credit because it is possible that each turbine would be considered separate "property." If the intent of the Committee is to limit the investment tax credit's availability to solar and wind developments in which the overall project is less than 1 MW in size, the Committee may wish to substitute "not part of a larger wind energy property" in section (a)(4) with "not part of a larger wind energy development." A similar change could be made in section (a)(2) by replacing "not part of a larger solar energy property" with "not part of a larger solar energy development" or "not part of a larger solar energy facility."

810 Kokomo Road Ste 160 Haiku HI 96708
P 808 575 2202, F 808 575 9878
www.risingsunsolar.com

Once again we support this bill, and we hope that the technical recommendations offered above may be of some use to the Committee. Thank you for the opportunity to provide this testimony.

810 Kokomo Road Ste 160 Haiku HI 96708
P 808 575 2202, F 808 575 9878
www.risingsunsolar.com

SunEdison®

HOUSE COMMITTEE ON ENERGY AND ENVIRONMENTAL PROTECTION

TESTIMONY IN SUPPORT OF
SB 623 SD 2 RELATING TO RENEWABLE ENERGY

Testimony of
SunEdison
Tuesday, March 12, 2013, 8:30 a.m.

Chair Lee, Vice Chair Thielen, and Members of the Committee:

Thank you for the opportunity to provide testimony in **support** of SB 623 SD2 relating to renewable energy. SB 623 SD2 will make needed reforms to the Renewable Energy Technologies Income Tax Credit ("RETITC") to reduce the credit's cost to the State.

However, there are three critical areas in which SB 623 SD2 should be amended before it can move forward as a viable bill: **first,** the tax credit percentages which were left blank in this version of the bill must be filled in; **second,** section (a)(3) of this bill governing the solar production tax credit should be replaced with compromise language agreed to by industry members; and, **third, 3 critical technical amendments must be made to avoid fatal implementation problems with the bill including potential negative retroactive impacts to residential solar projects in 2013**. We respectfully offer suggestions for these three areas below.

SunEdison is one of the largest solar PV energy service providers in the United States. In Hawaii, SunEdison has been active in developing and operating commercial and utility-scale solar PV systems since 2006.

1. Tax Credit Percentages and Cap Amounts Must Be Filled In

The current version of SB 623 contains blanks in sections (a)(1), (a)(2), and (a)(4) that must be filled in. 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)(4), a cap on the utility-scale wind energy credit of **$500,000**.

2. Replacement of Production Tax Credit Provisions With Compromise Language

The current version of SB 623 SD2 contains in section (a)(3) a two-tiered production tax credit rate for projects larger than 1 MW in size. One rate is a "base" rate and the other is a "grandfathered" rate for projects already in process. This differs from HB 497 HD3, which also contained a two-tiered rate for utility scale projects, but differentiated between projects based on whether or not the projects were "competitively bid."

We recommend that section (a)(3) of SB 623 SD2 be replaced with the "compromise" language below, which was agreed to by industry members with divergent views who were asked to work out a compromise solution amongst themselves. This "compromise" language below eliminates the tiered rate structure and instead steps down the production tax credit over time to mirror the stepped-down investment tax credit provisions of section (a)(2). This "compromise" language for section (a)(3) is as follows:

> (a)(3) For each solar energy property that is used to generate electricity and is one megawatt or larger in alternating current capacity:
>
> (A) For solar energy property that is placed in service on or before December 31, 2016, eight cents multiplied by the number of kilowatt hours produced by the solar energy property and sold by the taxpayer to an unrelated entity 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 the solar energy property is in service;
>
> (B) For solar energy property that is placed in service after December 31, 2016, but on or before December 31, 2020, six cents multiplied by the number of kilowatt hours produced by the solar energy property and sold by the taxpayer to an unrelated entity 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 the solar energy property is in service; and
>
> (C) For solar energy property that is placed in service after December 31, 2020, four cents multiplied by the number of kilowatt hours produced by the solar energy property and sold by the taxpayer to an unrelated entity during the taxable year, or produced by the solar energy property and used

SunEdison
simplifying solar

on-site to offset the site's demand for electricity during the taxable year, for the first ten years the solar energy property is in service.

This approach will be far easier to administer than determining which projects had met certain milestones by what date as currently contemplated by SB 623 SD2. Moreover, this approach will be good for the general fund, because the value of the credit declines over time with the proposed compromise language above. In addition, the production tax credit is based on the federal 'produced and sold' language and requires systems to produce energy in order to benefit from the tax incentive. Under the production tax credit, the State can be sure it is not paying for energy that is not used or for developing generating capacity that goes unutilized because units are offline due to poor design or construction.

3. Critical Technical Revisions

There are three critical technical revisions that must be made in order to avoid potentially serious or even fatal implementation problems with the legislation. These three technical amendments are: (a) to clarify how this new legislation would be phased in relative to the existing administrative rules for 2013 to avoid retroactive impacts for solar projects place in service in 2013; (b) to the definition of "Property"; and, (c) to the definition of "Basis."

(a) Clarification to avoid retroactive impacts for solar projects place in service in 2013.

SB 623 SD2 is currently written to apply to taxable years beginning after December 31, 2012. In its current form, the bill modifies the RETITC for systems placed in service between December 31, 2012 and January 1, 2014 relative to the existing Temporary Administrative Rules (published by DoTax in November 2012). As a result, this bill creates risk that there will be retroactive impacts to solar projects placed in service during 2013. Commercial and residential systems sold to date in 2013 have assumed they would qualify for the tax credit amounts provided by existing DoTax temporary administrative rules. When those systems are built and placed in service later this year, if they qualify for a different amount of tax credit under the terms in this bill, it would have a material negative impact on those customers and their investments, and create confusion for DoTax. To avoid a negative retroactive impact, SunEdison suggests that following language from the initial version of SB 623 be re-inserted into the bill draft:

> "For solar energy properties placed in service after December 31, 2012, and before January 1, 2014, a taxpayer may elect tax credits under this section or under the department's temporary administrative rules that became effective on January 1, 2013."

(b) Definition of "Property"

This draft of SB 623 rightly attempts to rely on the federal definition of energy

"property" in its reform of HRS § 235-12.5 by defining "property" as having "the same meaning as in section 25D, 45, or section 48 of the Internal Revenue Code." Unfortunately, however, "property" is not defined as a stand-alone term in any of those three sections of the IRC, and to the extent it is defined in conjunction with other terms — e.g., "energy property" and "qualified solar electric property expenditure" — the definitions are inconsistent and/or contradictory. For example, "energy property" in Sec. 48 is defined so as to exclude property that is not depreciable, since Sec. 48 only applies to commercial property. This won't work for HRS § 235-12.5, where the definition of property is intended to apply to both residential and commercial property. In any case, SB 623 SD 2 maintains a tie-in to the federal IRC for interpretation of these terms via its section (j), which provides that "The tax credits provided for in this section shall be construed in accordance with Treasury Regulations and judicial interpretations of similar provisions in sections 25D, 45, and 48 of the Internal Revenue Code."

In order to address this technical flaw, we recommend that the definition of "Property" used in SB 623 SD2 be replaced with the following definition:

> "Property" means (i) equipment which uses wind or solar energy to generate electricity; (ii) the construction, reconstruction, or erection of which is completed by the taxpayer, or which is acquired by the taxpayer if the original use of such property commences with the taxpayer.

This proposed definition takes the key elements of the federal law definitions and applies them to HRS § 235-12.5 in a workable manner.

(c) Definition of "Basis"

The second sentence of the definition of "Basis" in SB 623 SD2 should be deleted in order to avoid any conflict with federal law. SB 623 SD2 rightly attempts to follow the existing federal law definitions where possible. The third sentence of the definition of "Basis" fully accomplishes this goal of "following the federal" by stating:

> "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 of 1986, as amended; provided that 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."

However, this approach is jeopardized by the preceding sentence in the definition of "Basis," which states that: "Any cost incurred and paid for the repair, construction, or 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." In fact, federal law – as well as the existing Hawai'i RETITC – allows for costs associated with the construction, installation,

SunEdison
simplifying solar

and placing in service of the solar or wind energy property to constitute part of the basis. Therefore the second sentence of the definition of "Basis" contradicts the "follow the federal" approach, is contrary to the third sentence of the definition of "Basis," and would severely limit the use of the credit. To resolve this issue, the second sentence of the definition of "Basis" should be deleted.

Once again we support this bill, and we urge the committee to pass this measure with the suggested amendments.

Thank you for the opportunity to provide this testimony.

Sincerely,

Curtis Seymour
Director of Government Affairs
SunEdison

HOUSE COMMITTEE ON ENERGY AND ENVIRONMENTAL PROTECTION

Tuesday, March 12, 2013 — 8:30 a.m.

TESTIMONY SUPPORTING SB 623 SD2 RELATING TO RENEWABLE ENERGY

Chair Lee, Vice Chair Thielen, and Members of the Committee:

Sunetric **supports** SB 623 SD2, which will reform the Renewable Energy Technologies Income Tax Credit ("RETITC") while maintaining the viability of the solar industry. SB 623, SD2 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 depends on imported fossil fuels.

However, there are three critical areas in which SB 623 SD2 should be amended before it can move forward as a viable bill: **first**, the tax credit percentages which were left blank in this version of the bill must be filled in; **second**, section (a)(3) of this bill governing the solar production tax credit should be replaced with compromise language agreed to by industry members; and, **third**, three critical technical amendments must be made to avoid fatal implementation problems with the bill. We respectfully offer suggestions for these three areas below.

1. Tax Credit Percentages and Cap Amounts Must Be Filled In

The current version of SB 623 contains blanks in sections (a)(1), (a)(2), and (a)(4) that must be filled in. 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)(4), a cap on the utility-scale wind energy credit of **$500,000**.

2. Replacement of Production Tax Credit Provisions With Compromise Language

The current version of SB 623 SD2 contains in section (a)(3) a two-tiered production tax credit rate for projects larger than 1 MW in size. One rate is a "base" rate and the other is a "grandfathered" rate for projects already in process. This differs from HB 497 HD3, which also contained a two-tiered rate for utility scale projects, but differentiated between projects based on whether or not the projects were "competitively bid."

We recommend that section (a)(3) of SB 623 SD2 be replaced with the "compromise" language below, which was agreed to by industry members with divergent views who were asked to work out a compromise solution amongst themselves. This "compromise" language below eliminates the tiered rate structure and instead steps down the production tax credit over time to mirror the stepped-down investment tax credit provisions of section (a)(2). This "compromise" language for section (a)(3) is as follows:

> (a)(3) For each solar energy property that is used to generate electricity and is one megawatt or larger in alternating current capacity:
>
> (A) For solar energy property that is placed in service on or before December 31, 2016, eight cents multiplied by the number of kilowatt hours produced by the solar energy property and sold by the taxpayer to an unrelated entity 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 the solar energy property is in service;
>
> (B) For solar energy property that is placed in service after December 31, 2016, but on or before December 31, 2020, six cents multiplied by the number of kilowatt hours produced by the solar energy property and sold by the taxpayer to an unrelated entity 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 the solar energy property is in service; and
>
> (C) For solar energy property that is placed in service after December 31, 2020, four cents multiplied by the number of kilowatt hours produced by the solar energy property and sold by the taxpayer to an unrelated entity 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 the solar energy property is in service.

This approach will be far easier to administer than determining which projects had met certain milestones by what date as currently contemplated by SB 623 SD 2. Moreover, this approach will be good for the general fund. Not only will the transition to a production tax credit in general represent a reduced return to developers of these projects compared to the 24.5% available under the previous tax incentive regime, but it will further benefit the general fund because the value of the credit declines over time with the proposed compromise language above. In addition, the production tax credit is based on the federal 'produced and sold' language and requires systems to produce energy in order to benefit from the tax incentive. Under the production tax credit, the State can be sure it is not paying for energy that is not used or for developing generating capacity that goes unutilized because units are offline due to poor design or construction.

3. Critical Technical Revisions

There are three critical technical revisions that must be made in order to avoid potentially serious or even fatal implementation problems with the legislation. These three technical amendments are: (a) to the definition of "Property"; (b) to the definition of "Basis"; and, (c) to clarify the availability of the credit for utility-scale wind energy property.

(a) Definition of "Property"

This draft of SB 623 rightly attempts to rely on the federal definition of energy "property" in its reform of HRS § 235-12.5 by defining "property" as having "the same meaning as in section 25D, 45, or section 48 of the Internal Revenue Code." Unfortunately, however, "property" is not defined as a stand-alone term in any of those three sections of the IRC, and to the extent it is defined in conjunction with other terms — e.g., "energy property" and "qualified solar electric property expenditure" — the definitions are inconsistent and/or contradictory. For example, "energy property" in Sec. 48 is defined so as to exclude property that is not depreciable, since Sec. 48 only applies to commercial property. This won't work for HRS § 235-12.5, where the definition of property is intended to apply to both residential and commercial property. In any case, SB 623 SD 2 maintains a tie-in to the federal IRC for interpretation of these terms via its section (j), which provides that "The tax credits provided for in this section shall be construed in accordance with Treasury Regulations and judicial interpretations of similar provisions in sections 25D, 45, and 48 of the Internal Revenue Code."

In order to address this technical flaw, we recommend that the definition of "Property" used in SB 623 SD2 be replaced with the following definition:

> "Property" means (i) equipment which uses wind or solar energy to generate electricity; (ii) the construction, reconstruction, or erection of which is completed by the taxpayer,

or which is acquired by the taxpayer if the original use of such property commences with the taxpayer.

This proposed definition takes the key elements of the federal law definitions and applies them to HRS § 235-12.5 in a workable manner.

(b) Definition of "Basis"

The second sentence of the definition of "Basis" in SB 623 SD2 should be deleted in order to avoid any conflict with federal law. SB 623 SD2 rightly attempts to follow the existing federal law definitions where possible. The third sentence of the definition of "Basis" fully accomplishes this goal of "following the federal" by stating:

> "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 of 1986, as amended; provided that 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."

However, this approach is jeopardized by the preceding sentence in the definition of "Basis," which states that: "Any cost incurred and paid for the repair, construction, or 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." In fact, federal law – as well as the existing Hawai'i RETITC – allows for costs associated with the construction, installation, and placing in service of the solar or wind energy property to constitute part of the basis. Therefore the second sentence of the definition of "Basis" contradicts the "follow the federal" approach, is contrary to the third sentence of the definition of "Basis," and would severely limit the use of the credit. To resolve this issue, the second sentence of the definition of "Basis" should be deleted.

(c) Clarification of the Credit for Utility Scale Wind Energy Property

It is our understanding that the intent of SB 623 SD2 is not to include a wind tax credit for projects larger than 1 MW. As drafted, however, a larger wind energy project comprised of turbines whose individual rated capacities are below 1 MW would arguably be eligible for an investment tax credit because it is possible that each turbine would be considered separate "property." If the intent of the Committee is to limit the investment tax credit's availability to solar and wind developments in which the overall project is less than 1 MW in size, the Committee may wish to substitute "not part of a larger wind energy property" in section (a)(4) with "not part of a larger wind energy development." A similar change could be made in section (a)(2) by replacing "not part of a larger solar energy property" with "not part of a larger solar

energy development" or "not part of a larger solar energy facility."

Once again we support this bill, and we hope that the technical recommendations offered above may be of some use to the Committee. Thank you for the opportunity to provide this testimony.

With aloha,

Alex Tiller
CEO, Sunetric

SUNPOWER

HOUSE COMMITTEE ON ENERGY AND ENVIRONMENTAL PROTECTION
Tuesday, March 12, 2013 — 8:30 a.m.

TESTIMONY SUPPORTING
SB 623, SD2 RELATING TO RENEWABLE ENERGY

Aloha Chair Leee, Vice Chair Thielen and members of the Committee:

Introduction: My name is Riley Saito Senior Manager, Hawaii Projects, for SunPower Systems Corporation. SunPower is a dedicated supporter for over 15 years, in Hawaii, as and active participant of the renewable energy initiatives. Including Member (charter) of Hawaii Energy Policy Forum; Hawaii Clean Energy Initiative-Steering Committee and Energy Generation Working Group; Participant in energy related PUC dockets.

SunPower **supports** SB 623, SD2, which will reform the Renewable Energy Technologies Income Tax Credit ("RETITC") while maintaining the viability of the solar industry. SB 623, SD2 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 depends on imported fossil fuels.

However, there are three critical areas in which SB 623, SD2 should be amended before it can move forward as a viable bill: **first**, the tax credit percentages which were left blank in this version of the bill must be filled in; **second**, section (a)(3) of this bill governing the solar production tax credit should be replaced with compromise language agreed to by industry members; and, **third**, three critical technical amendments must be made to avoid fatal implementation problems with the bill. We respectfully offer suggestions for these three areas below.

1. **Tax Credit Percentages and Cap Amounts Must Be Filled In**

The current version of SB 623 contains blanks in sections (a)(1), (a)(2), and (a)(4) that must be filled in. 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)(4), a cap on the utility-scale wind energy credit of **$500,000**.

2. **Replacement of Production Tax Credit Provisions With Compromise Language**

The current version of SB 623, SD2 contains in section (a)(3) a two-tiered production tax credit rate for projects larger than 1 MW in size. One rate is a "base" rate and the other is a "grandfathered" rate for projects already in process. This differs from HB 497, HD3, which also contained a two-tiered rate for utility scale projects, but differentiated between projects based on whether or not the projects were "competitively bid."

3939 N. 1st Street
San Jose, CA 95134 USA
SUNPOWER
www.sunpowercorp.com
P: 1.408.240.5500
F: 1.408.240.5400

We recommend that section (a)(3) of SB 623, SD2 be replaced with the "compromise" language below, which was agreed to by industry members with divergent views who were asked to work out a compromise solution amongst themselves. This "compromise" language below eliminates the tiered rate structure and instead steps down the production tax credit over time to mirror the stepped-down investment tax credit provisions of section (a)(2). This "compromise" language for section (a)(3) is as follows:

(a)(3) For each solar energy property that is used to generate electricity and is one megawatt or larger in alternating current capacity:

(A) For solar energy property that is placed in service on or before December 31, 2016, eight cents multiplied by the number of kilowatt hours produced by the solar energy property and sold by the taxpayer to an unrelated entity 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 the solar energy property is in service;

(B) For solar energy property that is placed in service after December 31, 2016, but on or before December 31, 2020, six cents multiplied by the number of kilowatt hours produced by the solar energy property and sold by the taxpayer to an unrelated entity 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 the solar energy property is in service; and

(C) For solar energy property that is placed in service after December 31, 2020, four cents multiplied by the number of kilowatt hours produced by the solar energy property and sold by the taxpayer to an unrelated entity 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 the solar energy property is in service.

This approach will be far easier to administer than determining which projects had met certain milestones by what date as currently contemplated by SB 623, SD 2. Moreover, this approach will be good for the general fund. Not only will the transition to a production tax credit in general represent a reduced return to developers of these projects compared to the 24.5% available under the previous tax incentive regime, but it will further benefit the general fund because the value of the credit declines over time with the proposed compromise language above. In addition, the production tax credit is based on the federal 'produced and sold' language and requires systems to produce energy in order to benefit from the tax incentive. Under the production tax credit, the state can be sure it is not paying for energy that is not used or for developing generating capacity that goes unutilized because units are offline due to poor design or construction.

3. Critical Technical Revisions

There are three critical technical revisions that must be made in order to avoid potentially serious or even fatal implementation problems with the legislation. These three technical amendments are: (a) to the definition of "Property"; (b) to the definition of "Basis"; and, (c) to clarify the availability of the credit for utility-scale wind energy property.

(a) Definition of "Property"

This draft of SB 623 rightly attempts to rely on the federal definition of energy "property" in its reform of HRS § 235-12.5 by defining "property" as having "the same meaning as in section 25D, 45, or section 48 of the Internal Revenue Code." Unfortunately, however, "property" is not defined as a stand-alone term in any of those three sections of the IRC, and to the extent it is defined in conjunction with

other terms — e.g., "energy property" and "qualified solar electric property expenditure"—the definitions are inconsistent and/or contradictory. For example, "energy property" in Sec. 48 is defined so as to exclude property that is not depreciable, since Sec. 48 only applies to commercial property. This won't work for HRS § 235-12.5, where the definition of property is intended to apply to both residential and commercial property. In any case, SB 623, SD 2 maintains a tie-in to the federal IRC for interpretation of these terms via its section (j), which provides that "The tax credits provided for in this section shall be construed in accordance with Treasury Regulations and judicial interpretations of similar provisions in sections 25D, 45, and 48 of the Internal Revenue Code."

In order to address this technical flaw, we recommend that the definition of "Property" used in SB 623, SD2 be replaced with the following definition:

> "Property" means (i) equipment which uses wind or solar energy to generate electricity; (ii) the construction, reconstruction, or erection of which is completed by the taxpayer, or which is acquired by the taxpayer if the original use of such property commences with the taxpayer.

This proposed definition takes the key elements of the federal law definitions and applies them to HRS § 235-12.5 in a workable manner.

(b) Definition of "Basis"

The second sentence of the definition of "Basis" in SB 623, SD2 should be deleted in order to avoid any conflict with federal law. SB 623, SD2 rightly attempts to follow the existing federal law definitions where possible. The third sentence of the definition of "Basis" fully accomplishes this goal of "following the federal" by stating:

> "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 of 1986, as amended; provided that 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."

However, this approach is jeopardized by the preceding sentence in the definition of "Basis," which states that: "Any cost incurred and paid for the repair, construction, or 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." In fact, federal law—as well as the existing Hawai'i RETITC—allows for costs associated with the construction, installation, and placing in service of the solar or wind energy property to constitute part of the basis. Therefore the second sentence of the definition of "Basis" contradicts the "follow the federal" approach, is contrary to the third sentence of the definition of "Basis," and would severely limit the use of the credit. To resolve this issue, the second sentence of the definition of "Basis" should be deleted.

(c) Clarification of the Credit for Utility Scale Wind Energy Property

It is our understanding that the intent of SB 623, SD2 is not to include a wind tax credit for projects larger than 1 MW. As drafted, however, a larger wind energy project comprised of turbines whose individual rated capacities are below 1 MW would arguably be eligible for an investment tax credit because it is possible that each turbine would be considered separate "property." If the intent of the Committee is to limit the investment tax credit's availability to solar and wind developments in which the overall project is less than one MW in size, the Committee may wish to substitute "not part of a larger wind energy property" in section (a)(4) with "not part of a larger wind energy development". A similar change could be made in section (a)(2) by replacing "not part of a larger solar energy property" with "not part of a larger solar energy development" or "not part of a larger solar energy facility."

Once again we support this bill, and we hope that the technical recommendations offered above may be of some use to the Committee. Thank you for the opportunity to provide this testimony.

Mahalo for the opportunity to testify.

Riley Saito
Senior Manager, Hawaii Projects
SunPower Systems, Corporation

Sunrun Inc. I 1.855.4SUNRUN I sunrunhome.com

HOUSE COMMITTEE ON ENERGY AND ENVIRONMENTAL PROTECTION

TESTIMONY IN SUPPORT OF SB 623 SD 2 RELATING TO RENEWABLE ENERGY

Testimony of Sarah Bertram, Sr. Manager, Policy & New Markets, Sunrun

Tuesday, March 12, 2013; House Conference Room 325

Chair Lee, Vice Chair Thielen, and Members of the Committee:

Sunrun supports SB 623 SD2, which will reform the Renewable Energy Technologies Income Tax Credit ("RETITC") while maintaining the viability of the solar industry. SB 623 SD2 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 depends on imported fossil fuels.

However, there are three critical areas in which SB 623 SD2 should be amended before it can move forward as a viable bill: **first,** the tax credit percentages which were left blank in this version of the bill must be filled in; **second, 3 critical technical amendments must be made to avoid fatal implementation problems with the bill including potential negative retroactive impacts to residential solar projects in 2013;** and, **third,** section (a)(3) of this bill governing the solar production tax credit should be replaced with compromise language agreed to by industry members. We respectfully offer suggestions for these three areas below.

1. Tax Credit Percentages and Cap Amounts Must Be Filled In

The current version of SB 623 contains blanks in sections (a)(1), (a)(2), and (a)(4) that must be filled in. 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)(4), a cap on the utility-scale wind energy credit of **$500,000**.

2. Critical Technical Revisions

There are three critical technical revisions that must be made in order to avoid potentially serious or even fatal implementation problems with the legislation. These three technical amendments are: (a) to clarify how this new legislation would be phased in relative to the existing administrative rules for 2013 to avoid retroactive impacts for residential solar projects place in service in 2013; (b) to the definition of "Property"; and, (c) to the definition of "Basis."

(a) Clarification to avoid retroactive impacts for residential solar projects place in service in 2013.

SB 623 SD2 is currently written to apply to taxable years beginning after December 31, 2012. In its current form, the bill modifies the RETITC for systems placed in service between December 31, 2012 and January 1, 2014 relative to the existing Temporary Administrative Rules (published by DoTax in November 2012). As a result, this bill creates risk that there will be retroactive impacts to solar projects placed in service during 2013. Residential systems sold in to date in 2013 have assumed they would qualify for the tax credit amounts provided by existing DoTax temporary administrative rules. When those systems are built and placed in service later this year, if they qualify for a different amount of tax credit under the terms in this bill, it could have a negative impact on homeowners, and create confusion for both homeowners and DoTax. To avoid a negative retroactive impact, Sunrun suggests that following language from the initial version of SB 623 be re-inserted into the bill draft:

> "For solar energy properties placed in service after December 31, 2012, and before January 1, 2014, a taxpayer may elect tax credits under this section or under the department's temporary administrative rules that became effective on January 1, 2013."

(b) Definition of "Property"

This draft of SB 623 rightly attempts to rely on the federal definition of energy "property" in its reform of HRS § 235-12.5 by defining "property" as having "the same meaning as in section 25D, 45, or section 48 of the Internal Revenue Code." Unfortunately, however, "property" is not defined as a stand-alone term in any of those three sections of the IRC, and to the extent it is defined in conjunction with other terms — e.g., "energy property" and "qualified solar electric property expenditure" — the definitions are inconsistent and/or contradictory. For example, "energy property" in Sec. 48 is defined so as to exclude property that is not depreciable, since Sec. 48 only applies to commercial property. This won't work for HRS § 235-12.5, where the definition of property is intended to apply to both residential and commercial property. In any case, SB 623 SD 2 maintains a tie-in to the federal IRC for interpretation of these terms via its section (j), which provides that "The tax credits provided for in this section shall be construed in accordance with Treasury Regulations and judicial interpretations of similar provisions in sections 25D, 45, and 48 of the Internal Revenue Code."

In order to address this technical flaw, we recommend that the definition of "Property" used in SB 623 SD2 be replaced with the following definition:

> "Property" means (i) equipment which uses wind or solar energy to generate electricity; (ii) the construction, reconstruction, or erection of which is completed by the taxpayer, or which is acquired by the taxpayer if the original use of such property commences with the taxpayer.

This proposed definition takes the key elements of the federal law definitions and applies them to HRS § 235-12.5 in a workable manner.

(c) Definition of "Basis"

The second sentence of the definition of "Basis" in SB 623 SD2 should be deleted in order to avoid any conflict with federal law. SB 623 SD2 rightly attempts to follow the existing federal law definitions where possible. The third sentence of the definition of "Basis" fully accomplishes this goal of "following the federal" by stating:

> "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 of 1986, as amended; provided that 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."

However, this approach is jeopardized by the preceding sentence in the definition of "Basis," which states that: "Any cost incurred and paid for the repair, construction, or 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." In fact, federal law – as well as the existing Hawai'i RETITC – allows for costs associated with the construction, installation, and placing in service of the solar or wind energy property to constitute part of the basis. Therefore the second sentence of the definition of "Basis" contradicts the "follow the federal" approach, is contrary to the third sentence of the definition of "Basis," and would severely limit the use of the credit. To resolve this issue, the second sentence of the definition of "Basis" should be deleted.

3. Replacement of Production Tax Credit Provisions With Compromise Language

The current version of SB 623 SD2 contains in section (a)(3) a two-tiered production tax credit rate for projects larger than 1 MW in size. One rate is a "base" rate and the other is a "grandfathered" rate for projects already in process. This differs from HB 497 HD3, which also contained a two-tiered rate for utility scale projects, but differentiated between projects based on whether or not the projects were "competitively bid."

We recommend that section (a)(3) of SB 623 SD2 be replaced with the "compromise" language below, which was agreed to by industry members with divergent views who were asked to work out a compromise solution amongst themselves. This "compromise" language below eliminates the tiered rate structure and instead steps down the production

tax credit over time to mirror the stepped-down investment tax credit provisions of section (a)(2). This "compromise" language for section (a)(3) is as follows:

> (a)(3) For each solar energy property that is used to generate electricity and is one megawatt or larger in alternating current capacity:
>
> (A) For solar energy property that is placed in service on or before December 31, 2016, eight cents multiplied by the number of kilowatt hours produced by the solar energy property and sold by the taxpayer to an unrelated entity 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 the solar energy property is in service;
>
> (B) For solar energy property that is placed in service after December 31, 2016, but on or before December 31, 2020, six cents multiplied by the number of kilowatt hours produced by the solar energy property and sold by the taxpayer to an unrelated entity 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 the solar energy property is in service; and
>
> (C) For solar energy property that is placed in service after December 31, 2020, four cents multiplied by the number of kilowatt hours produced by the solar energy property and sold by the taxpayer to an unrelated entity 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 the solar energy property is in service.

This approach will be far easier to administer than determining which projects had met certain milestones by what date as currently contemplated by SB 623 SD2. Moreover, this approach will be good for the general fund. Not only will the transition to a production tax credit in general represent a reduced return to developers of these projects compared to the 24.5% available under the previous tax incentive regime, but it will further benefit the general fund because the value of the credit declines over time with the proposed compromise language above. In addition, the production tax credit is based on the federal 'produced and sold' language and requires systems to produce energy in order to benefit from the tax incentive. Under the production tax credit, the State can be sure it is not paying for energy that is not used or for developing generating capacity that goes unutilized because units are offline due to poor design or construction.

Once again we support this bill, and we hope that the technical recommendations offered above may be of some use to the Committee. Thank you for the opportunity to provide this testimony.

Sincerely,
Sarah Bertram

Email: communications@ulupono initiative.com

HOUSE COMMITTEE ON ENERGY AND ENVIRONMENTAL PROTECTION
Tuesday, March 12, 2013 – 8:30 a.m. – Room 325

Amy Hennessey 3/10/13 2:19 PM
Deleted: –

TESTIMONY SUPPORTING SB 623 SD2 RELATING TO RENEWABLE ENERGY

Chair Lee, Vice Chair Thielen, and Members of the Committee:

My name is Murray Clay, Managing Partner of the Ulupono Initiative, a Hawai'i-based 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 grown food, increase renewable energy, and reduce/recycle waste.

Ulupono Initiative **supports** SB 623 SD2, which will reform the Renewable Energy Technologies Income Tax Credit ("RETITC") while maintaining the viability of the solar industry. SB 623 SD2 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.

Robbie Dingeman 3/10/13 1:48 PM
Deleted: ,

Robbie Dingeman 3/9/13 10:29 PM
Deleted: ence

However, there are three critical areas in which SB 623 SD2 should be amended before it can move forward as a viable bill: **first**, the tax credit percentages which were left blank in this version of the bill must be filled in; **second**, section (a)(3) of this bill governing the solar production tax credit should be replaced with compromise language agreed to by industry members; and, **third**, three critical technical amendments must be made to avoid fatal implementation problems with the bill. We respectfully offer suggestions for these three areas below.

1. Tax Credit Percentages and Cap Amounts Must Be Filled In

The current version of SB 623 contains blanks in sections (a)(1), (a)(2), and (a)(4) that must be filled in. 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;

Pacific Guardian Center, Mauka Tower
737 Bishop Street, Suite 2350, Honolulu, HI 96813

808 544 8960 o | 808 544 8961 f
www.ulupono initiative.com

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

Amy Hennessey 3/10/13 2:20 PM
Deleted: (AMY: is this flopped? 20 percent until 2017; and 15 until 2018????)

2. **Replacement of Production Tax Credit Provisions With Compromise Language**

The current version of SB 623 SD2 contains in section (a)(3) a two-tiered production tax credit rate for projects larger than 1 MW in size. One rate is a "base" rate and the other is a "grandfathered" rate for projects already in process. This differs from HB 497 HD3, which also contained a two-tiered rate for utility scale projects, but differentiated between projects based on whether or not the projects were "competitively bid."

We recommend that section (a)(3) of SB 623 SD2 be replaced with the "compromise" language below, which was agreed to by industry members with divergent views who were asked to work out a compromise solution among themselves. This "compromise" language below eliminates the tiered rate structure and instead steps down the production tax credit over time to mirror the stepped-down investment tax credit provisions of section (a)(2). This "compromise" language for section (a)(3) is as follows:

Robbie Dingeman 3/9/13 10:32 PM
Deleted: st

(a)(3) For each solar energy property that is used to generate electricity and is one megawatt or larger in alternating current capacity:

(A) For solar energy property that is placed in service on or before December 31, 2016, eight cents multiplied by the number of kilowatt hours produced by the solar energy property and sold by the taxpayer to an unrelated entity 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 the solar energy property is in service;

(B) For solar energy property that is placed in service after December 31, 2016, but on or before December 31, 2020, six cents multiplied by the number of kilowatt hours produced by the solar energy property and sold by the taxpayer to an unrelated entity 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 the solar energy property is in service; and

(C) For solar energy property that is placed in service after December 31, 2020, four cents multiplied by the number of kilowatt hours produced by the solar energy property and sold by the taxpayer to an unrelated entity 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 the solar energy property is in service.

This approach will be far easier to administer than determining which projects met certain milestones by what date as currently contemplated by SB 623 SD 2. Moreover, this approach will be good for the general fund. Not only will the transition to a production tax credit in general represent a reduced return to developers of these projects compared to the 24.5 percent available under the previous tax incentive regime, but it will further benefit the general fund because the value of the credit declines over time with the proposed compromise language above. In addition, the production tax credit is based on the federal 'produced and sold' language and requires systems to produce energy in order to benefit from the tax incentive. Under the production tax credit, the State can be sure it is not paying for energy that is not used or for developing generating capacity that goes unutilized because units are offline due to poor design or construction.

Robbie Dingeman 3/9/13 10:32 PM
Deleted: had

Robbie Dingeman 3/9/13 10:32 PM
Deleted: %

3. Critical Technical Revisions

There are three critical technical revisions that must be made in order to avoid potentially serious or even fatal implementation problems with the legislation. These three technical amendments are: (a) to the definition of "Property"; (b) to the definition of "Basis"; and, (c) to clarify the availability of the credit for utility-scale wind energy property.

(a) Definition of "Property"

This draft of SB 623 rightly attempts to rely on the federal definition of energy "property" in its reform of HRS § 235-12.5 by defining "property" as having "the same meaning as in section 25D, 45, or section 48 of the Internal Revenue Code." Unfortunately, however, "property" is not defined as a stand-alone term in any of those three sections of the IRC, and to the extent it is defined in conjunction with other terms — e.g., "energy property" and "qualified solar electric property expenditure" — the definitions are inconsistent and/or contradictory. For example, "energy property" in Sec. 48 is defined so as to exclude property that is not depreciable, since Sec. 48 only applies to commercial property. This won't work for HRS § 235-12.5, where the definition of property is intended to apply to both residential and commercial property. In any case, SB 623 SD 2 maintains a tie-in to the federal IRC for interpretation of these terms via its section (j), which provides that "The tax credits provided for in this section shall be construed in accordance with Treasury Regulations and judicial interpretations of similar provisions in sections 25D, 45, and 48 of the Internal Revenue Code."

In order to address this technical flaw, we recommend that the definition of "Property" used in SB 623 SD2 be replaced with the following definition:

> "Property" means (i) equipment which uses wind or solar energy to generate electricity; (ii) the construction, reconstruction, or erection of which is completed by the taxpayer, or which is acquired by the taxpayer if the original use of such property commences with the taxpayer.

This proposed definition takes the key elements of the federal law definitions and applies them to HRS § 235-12.5 in a workable manner.

(b) Definition of "Basis"

The second sentence of the definition of "Basis" in SB 623 SD2 should be deleted in order to avoid any conflict with federal law. SB 623 SD2 rightly attempts to follow the existing federal law definitions where possible. The third sentence of the definition of "Basis" fully accomplishes this goal of "following the federal" by stating:

> "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 of 1986, as amended; provided that 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."

However, this approach is jeopardized by the preceding sentence in the definition of "Basis," which states that: "Any cost incurred and paid for the repair, construction, or 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." In fact, federal law – as well as the existing Hawai'i RETITC – allows for costs associated with the construction, installation, and placing in service of the solar or wind energy property to constitute part of the basis. Therefore the second sentence of the definition of "Basis" contradicts the "follow the federal" approach, is contrary to the third sentence of the definition of "Basis," and would severely limit the use of the credit. To resolve this issue, the second sentence of the definition of "Basis" should be deleted.

(c) Clarification of the Credit for Utility Scale Wind Energy Property

It is our understanding that the intent of SB 623 SD2 is not to include a wind tax credit for projects larger than 1 MW. As drafted, however, a larger wind energy project composed of turbines whose individual rated capacities are below 1 MW would arguably be eligible for an investment tax credit because it is possible that each turbine would be considered separate "property." If the intent of the Committee is to limit the investment tax credit's availability to solar and wind developments in which the overall project is less than 1 MW in size, the Committee may wish to substitute "not part of a larger wind energy property" in section (a)(4) with "not part of a larger wind energy development." A similar change could be made in section (a)(2) by replacing "not part of a larger solar energy property" with "not part of a larger solar energy development" or "not part of a larger solar energy facility."

Robbie Dingeman 3/9/13 10:33 PM
Deleted: ri

Once again we support this bill, and we hope that the technical recommendations offered above may be of some use to the Committee. Thank you for the opportunity to provide this testimony.

Respectfully,

Murray Clay
Managing Partner

Hawaii Solar Energy Association
Serving Hawaii Since 1977

Before the House Committee on Energy & Environmental Protection
Tuesday, March 12, 2013, 8:30 a.m., Conference Room 325
SB 623 SD 2: RELATING TO RENEWABLE ENERGY

Aloha Chair Lee, Vice-Chair Thielen, and members of the House Committee on Energy & Environmental Protection,

On behalf of the Hawaii Solar Energy Association (HSEA), I would like to testify **in support of SB 623 SD 2**, with the following amendments and concerns.

Subsequent installations for ITC projects
SB 623 SD 2 currently states on page 2, section (2) that the tax credit may be claimed so long as it is not part of a larger energy property. HSEA is concerned that this language will prevent home owners and small commercial businesses from installing "mini" systems over several years, which allows the customer to break up the cost and keep PV affordable. HSEA respectfully suggests the following amendment:

> 235-12.5 (a)(2)For each solar energy property that it used primarily to generate electricity, is less than one megawatt in alternating current capacity, ~~is not part of a larger solar energy property~~, and is installed and first placed in service in the State by a taxpayer during the taxable year, so long as no energy property that receives a credit under the following regime may later receive a production tax credit, even if the project is 1 MW or greater:
>
> And
>
> 235-12.5 (a)(3)For each solar energy property that is used to generate electricity and has not already received a tax credit under (a)(2)(A-D)and is one megawatt or larger in alternating generating capacity:

Retroactivity
HSEA is also concerned that SB 623 SD's retroactivity for any system placed in service after December 31, 2012 will stop the bill from being enacted due to constitutional issues. Under the current temporary administrative rules implemented through the Department of Taxation, any system that is around 2.5kW currently receives an effective tax credit of 35% of the basis of the system. The retroactivity of SB 623 SD 2 would potentially reduce the tax credit for systems

already purchased and installed under the current rules, thus creating a hardship for taxpayers basing their purchase on the current framework.

To amend this, HSEA respectfully suggests one of the following: have effective date for SB 623 SD 2 as July 1, 2013; keep the effective date at January 1, 2013, but start PV credit for ITC at 35%; or insert a clause which will allow taxpayers to grandfather in projects under the current admin rules if they so choose and can show the property was installed and placed in service between December 3,1, 2012 and July 1, 2013.

Refundable Credit at no discount for PTC

Although HSEA believes that the ramp down of the ITC credit will reduce the speed and scale of residential and commercial installations of PV, HSEA has conceded in the spirit of compromise and to support a bill that will foster business stability. However, HSEA does not support a refundable credit without discount for PTC projects. Not only do PTC projects at 8 cents/kWh enjoy an effective tax credit of approximately 35%, the added benefit of depreciation significantly adds to the PTC benefit. 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
Hawaii Island Solar
Hoku Scientific
Island Pacific Energy
Ku'oko'a
Maui Pacific Solar
Pacific Basin
Poncho's Solar
Rheem Manufacturing
Smart Energy Hawaii
SolarWave Hawaii
Sun Earth, Inc.
Talent HR Solutions
Enecsys Micro-inverters
Affordable Solar Contracting
American Electric Company, LLC
Bureau Veritas North America
Coffman Engineers, Inc.
DHX
Enphase
Energy Unlimited, Inc.
Forest City Residential Group
Grand Solar
Hawaii Home Expo & Marbelhaus Trading
Hi-Tech Plumbing
Honeywell Utility Solutions
Island Solar Service
Kyocera Solar Inc.
Mercury Solar
Phoenix Solar
R & R Solar Supply
Schenk's Specialized Services LLC
Solar Services Hawaii
SolarWorld California
Sunectric
WESCO Distribution
Allana Buick & Bers
B. Bautista Electrical
Cano Electric
Allen's Plumbing
Dr. Stephen Allen
Energy Industries
EnergyPro Hawaii
Gexpro
Haleakala Solar
Hawaii Electric Company
HNU Energy
Inter-Island Solar Supply
Kheiron Partners
Lumen Solar, LLC
Morikawa & Associates
PhotonWorks Engineering
REC Solar, Inc.
Schlissel & Associates
SolarCity
Sun King
SunHedge
Unirac

Sovereign Councils of the

Hawaiian Homelands Assembly

89-1888 Farrington Hwy.
Waianae, HI 96792
Ph: (808) 620-9070
info@schha.com

March 11, 2013

To: **Rep. Chris Lee, Chair**
Rep. LauraThielen, Vice Chair, & Members of the House Committee on Energy & Environmental Protection

From: **Kali Watson**
Chairman of Statewide Economic/Housing Development
SCHHA
Honolulu, Hawaii 96792

Re: **Hearing on Renewable Energy SB 623, SD2**
March 12, 2013 at 8:30 am
Hawaii State Capitol

TESTIMONY IN SUPPORT

Dear Chair Lee, Vice Chair Thielen and Members of the Committee:

Thank you for the opportunity to provide testimony in support of SB 623 SD2 regarding renewable energy. It will make needed reforms to the Renewable Energy Technologies Income Tax Credit ("RETITC") to reduce the credit's cost to the State. Specifically, SB 623 SD2 takes a reasonable approach towards reforming the RETITC by generally following the existing federal structure and guidance, by providing a clear predictable slow reduction of the incentive level, by reducing the tax credit's cost to the State while maximizing the amount of solar that will be installed, and by preserving all sectors of the solar photovoltaic industry, especially utility sized projects. Changes are needed.

We propose changes to the tax credit structure will make the RETITC easier to administer and will ensure that Hawai'i's homeowners and businesses are able to participate in helping Hawai'i achieve its ambitious clean energy goals and become more energy independent. We support the fair and balanced approach of SB 623 SD2, and urge the committee to pass this measure.

Therefore, we believe there are three important areas in the SB 623 SD2 which should be addressed. ONE – the tax credit percentages which were left blank in this version of the bill should be filled in, TWO – section (a)(3) governing the solar production tax credit should be replaced with language that truly makes sense and can be supported by the entire industry; and THREE – three important technical amendments which make the bill work should be made. We respectfully offer suggestions for these three areas below.

1. Tax Credit Percentages and Cap Amounts Must Be Filled In

The current version of SB 623 contains blanks in sections (a)(1), (a)(2), and (a)(4) that must be filled in. 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)(4), a cap on the utility-scale wind energy credit of **$500,000**.

2. Replacement of Production Tax Credit Provisions With Compromise Language

The current version of SB 623 SD2 contains in section (a)(3) a two-tiered production tax credit rate for projects larger than 1 MW in size. One rate is a "base" rate and the other is a "grandfathered" rate for projects already in process. This differs from HB 497 HD3, which also contained a two-tiered rate for utility scale projects, but differentiated between projects based on whether or not the projects were "competitively bid."

We recommend that section (a)(3) of SB 623 SD2 be replaced with the "compromise" language below, which was agreed to by industry members with divergent views who were asked to work out a compromise solution amongst themselves. This "compromise" language below eliminates the tiered rate structure and instead steps down the production tax credit over time to mirror the stepped-down investment tax credit provisions of section (a)(2). This "compromise" language for section (a)(3) is as follows:

> (a)(3) For each solar energy property that is used to generate electricity and is one megawatt or larger in alternating current capacity:
>
> (A) For solar energy property that is placed in service on or before December 31, 2016, eight cents multiplied by the number of kilowatt hours produced by the solar energy property and sold by the taxpayer to an unrelated entity 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 the solar energy property is in service;
>
> (B) For solar energy property that is placed in service after December 31, 2016, but on or before December 31, 2020, six cents multiplied by the number of kilowatt hours produced by the solar energy property and sold by the taxpayer to an unrelated entity 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 the solar energy property is in service; and
>
> (C) For solar energy property that is placed in service after December 31, 2020, four cents multiplied by the number of kilowatt hours produced by the solar energy property and sold by the taxpayer to an unrelated entity 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 the solar energy property is in service.

This approach will be far easier to administer than determining which projects had met certain milestones by what date as currently contemplated by SB 623 SD 2. Moreover, this approach will be good for the general fund. Not only will the transition to a production tax credit in general represent a reduced return to developers of these projects compared to the 24.5% available under the previous tax incentive regime, but it will further benefit the general fund because the value of the credit declines over time with the proposed compromise language above. In addition, the production tax credit is

based on the federal 'produced and sold' language and requires systems to produce energy in order to benefit from the tax incentive. Under the production tax credit, the State can be sure it is not paying for energy that is not used or for developing generating capacity that goes unutilized because units are offline due to poor design or construction.

Critical Technical Revisions

There are three critical technical revisions that must be made in order to avoid potentially serious or even fatal implementation problems with the legislation. These three technical amendments are: (a) to the definition of "Property"; (b) to the definition of "Basis"; and, (c) to clarify the availability of the credit for utility-scale wind energy property.

(a) Definition of "Property"

This draft of SB 623 rightly attempts to rely on the federal definition of energy "property" in its reform of HRS § 235-12.5 by defining "property" as having "the same meaning as in section 25D, 45, or section 48 of the Internal Revenue Code." Unfortunately, however, "property" is not defined as a stand-alone term in any of those three sections of the IRC, and to the extent it is defined in conjunction with other terms — e.g., "energy property" and "qualified solar electric property expenditure" — the definitions are inconsistent and/or contradictory. For example, "energy property" in Sec. 48 is defined so as to exclude property that is not depreciable, since Sec. 48 only applies to commercial property. This won't work for HRS § 235-12.5, where the definition of property is intended to apply to both residential and commercial property. In any case, SB 623 SD 2 maintains a tie-in to the federal IRC for interpretation of these terms via its section (j), which provides that "The tax credits provided for in this section shall be construed in accordance with Treasury Regulations and judicial interpretations of similar provisions in sections 25D, 45, and 48 of the Internal Revenue Code."

In order to address this technical flaw, we recommend that the definition of "Property" used in SB 623 SD2 be replaced with the following definition:

<u>"Property" means (i) equipment which uses wind or solar energy to generate electricity; (ii) the construction, reconstruction, or erection of which is completed by the taxpayer, or which is acquired by the taxpayer if the original use of such property commences with the taxpayer.</u>

This proposed definition takes the key elements of the federal law definitions and applies them to HRS § 235-12.5 in a workable manner.

(b) Definition of "Basis"

The second sentence of the definition of "Basis" in SB 623 SD2 should be deleted in order to avoid any conflict with federal law. SB 623 SD2 rightly attempts to follow the existing federal law definitions where possible. The third sentence of the definition of "Basis" fully accomplishes this goal of "following the federal" by stating:

"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 of 1986, as amended; provided that 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."

(c) Clarification of the Credit for Utility Scale Wind Energy Property

It is our understanding that the intent of SB 623 SD2 is not to include a wind tax credit for projects larger than 1 MW. As drafted, however, a larger wind energy project comprised of turbines whose individual rated capacities are below 1 MW would arguably be eligible for an investment tax credit because it is possible that each turbine would be considered separate "property." If the intent of the Committee is to limit the investment tax credit's availability to solar and wind developments in which the overall project is less than 1 MW in size, the Committee may wish to substitute "not part of a larger wind energy property" in section (a)(4) with "not part of a larger wind energy development." A similar change could be made in section (a)(2) by replacing "not part of a larger solar energy property" with "not part of a larger solar energy development" or "not part of a larger solar energy facility."

The Sovereign Councils of the Hawaiian Homelands Assembly, formerly the State Council of Hawaiian Homestead Associations was founded more than 25 years ago to unite homestead communities and to advocate for the beneficiaries of the Hawaiian Homes Commission Act of 1921. The SCHHA is the oldest statewide advocacy organization representing the interests of more than 30,000 beneficiaries and families residing in the communities of the Hawaiian Home Land Trust. Its mission is to promote the self determination of native Hawaiians and the well-being of homestead communities. As Chairman of Economic/Housing /Committee, it's critical that we have a more conducive and viable approach to financing of our solar projects.

Once again we support this bill, and we hope that the technical recommendations offered above may be of some use to the Committee. Thank you for the opportunity to provide this testimony.

Sincerely,

Kali Watson

Kali Watson
Chairman of Economic Development

L E G I S L A T I V E

TAXBILLSERVICE

126 Queen Street, Suite 304 TAX FOUNDATION OF HAWAII Honolulu, Hawaii 96813 Tel. 536-4587

SUBJECT: INCOME, Renewable energy technology tax credit

BILL NUMBER: SB 623, SD-2

INTRODUCED BY: Senate Committee on Ways and Means

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; provided further that 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 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 incentive 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.

Digested 3/11/13

TESTIMONY SUPPORTING THE INTENT OF SB 623, SD 2

To: Honorable Chris Lee, Chair, House Committee on Energy and Environmental Protection

From: SolarCity

Hearing on Mar. 12, 2013, at 8:30 a.m., Room 325

Aloha Chair Lee, Vice Chair Thielen, and Members of the Committee:

Thank you for the opportunity to provide testimony supporting the intent of SB 623, SD 2, which balances Hawaii's pursuit of a clean energy future with the cost of the Renewable Energy Technologies Income Tax Credit (RETITC).

We respectfully request the Committee to amend SB 623, SD2 to fully address four important issues.

1. **Fill in Tax Credit Percentages and Cap Amounts**

   The current version of SB 623 contains blanks that must be filled in. We recommend that the Committee insert the percentages and cap amounts contained in HB 497, HD 3, which closely track the percentages and cap amounts contained in prior versions of SB 623.

2. **Replace Production Tax Credit Provisions with Compromise Language**

   SB 623, SD2 contains a two-tiered production tax credit rate for projects larger than 1 MW. One rate is a "base" rate and the other is a "grandfathered" rate for projects already in process.

We recommend that section (a)(3) of SB 623, SD2 be replaced with “compromise” language developed by industry stakeholders.

The suggested language is as follows:

> (a)(3) For each solar energy property that is used to generate electricity and is one megawatt or larger in alternating current capacity:
>
> (A) For solar energy property that is placed in service on or before December 31, 2016, eight cents multiplied by the number of kilowatt hours produced by the solar energy property and sold by the taxpayer to an unrelated entity 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 the solar energy property is in service;
>
> (B) For solar energy property that is placed in service after December 31, 2016, but on or before December 31, 2020, six cents multiplied by the number of kilowatt hours produced by the solar energy property and sold by the taxpayer to an unrelated entity 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 the solar energy property is in service; and
>
> (C) For solar energy property that is placed in service after December 31, 2020, four cents multiplied by the number of kilowatt hours produced by the solar energy property and sold by the taxpayer to an unrelated entity 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 the solar energy property is in service.

This approach will be easier to administer than determining which projects had met certain milestones as currently

contemplated by SB 623, SD 2. Moreover, this approach will be good for the general fund because the credit will be paid out over ten years and because the value of the credit declines over time.

3. Revise Definitions of Property and Basis

The definition of "Property" and the definition of "Basis" should be amended to avoid implementation problems.

Definition of "Property"—SB 623 rightly attempts to rely on the federal definition of energy "property" in its reform of HRS § 235-12.5 by defining "property" as having "the same meaning as in section 25D, 45, or section 48 of the Internal Revenue Code." However, "property" is not defined as a stand-alone term in any of those three sections of the IRC, and to the extent it is defined in conjunction with other terms — e.g., "energy property" and "qualified solar electric property expenditure" — the definitions are inconsistent and/or contradictory.

In order to address this flaw, we recommend that the definition of "Property" used in SB 623, SD2 be replaced with the following definition:

"Property" means (i) equipment which uses wind or solar energy to generate electricity; (ii) the construction, reconstruction, or erection of which is completed by the taxpayer, or which is acquired by the taxpayer if the original use of such property commences with the taxpayer.

This proposed definition takes the key elements of the federal law definitions and applies them to HRS § 235-12.5 in a workable manner.

Definition of "Basis"—the second sentence of the definition of "Basis" in SB 623, SD2 should be deleted in order to avoid any conflict with federal law.

Federal law, as well as the existing Hawai‘i RETITC, allows for costs associated with the construction, installation, and placing

in service of the solar or wind energy property to constitute part of the basis. The second sentence of the definition of “Basis” would severely limit the use of the credit and should be deleted.

4. **Include Language to Allow the Credit to Pass Through**

   Language allowing the credit to pass through to investors, similar to federal law, should be added to SB 623, SD 2. This would attract more outside investment and decrease reliance on the refundable credit.

Once again we support this bill, and we hope that the technical recommendations offered above may be of some use to the Committee. Thank you for the opportunity to provide this testimony.

Mahalo,

Jon Yoshimura, Director of Government Affairs, Hawaii

firstwind
CLEAN ENERGY. MADE HERE.

TESTIMONY BY
KELLY O'BRIEN, VICE-PRESIDENT FOR DEVELOPMENT
FIRST WIND

REGARDING S.B. 623 SD2, RELATING TO RENEWABLE ENERGY

BEFORE THE
HAWAIʻI STATE LEGISLATURE
HAWAIʻI STATE SENATE
COMMITTEE ON WAYS AND MEANS

TUESDAY, MARCH 12, 2013
CONFERENCE ROOM 211
8:30 A.M.

Aloha Chairman Lee, Vice Chairman Thielen and Distinguished Members of the Committee on Energy and Environmental Protection. My name is Kelly O'Brien and I am the Vice-President for Development for First Wind.

First Wind has been developing and operating utility scale wind energy projects in Hawaiʻi since 2006 and to date has invested nearly $600 million in Hawaiʻi. We own and operate Kaheawa Wind Power I & II on Maui (51 MW) and Kahuku Wind Power (30 MW) and Kawailoa Wind Power (69 MW) on Oʻahu. First Wind currently employs 25 people in Hawaiʻi with plans to add 5 more in the near term. We are also involved with several utility-scale solar projects in Hawaiʻi. We are firmly committed to helping to improve Hawaiʻi's energy security by decreasing its reliance on fossil fuels for its energy needs. We have a demonstrated record in establishing long-term dialogues and partnerships with the communities we join and we are proud of our accomplishments in establishing successful Habitat Conservation Plans for our projects which ensure a "net benefit" to native wildlife that could be affected by our projects.

Hawaiʻi has made great strides in utilizing renewable resources for its electricity needs in the past decade, much more needs to be done to decrease Hawaiʻi's reliance on fossil fuels. Renewable Energy tax credits have a significant economic impact on each project. While First Wind supports the concept of tax credits for residential, commercial and feed-in-tariff solar projects, we are not taking a position on how the credits for those projects should be structured. Our interests are in the area of solar tax credits for utility-scale projects.

First Wind supports efforts to establish a consistent tax credit structure that ensures a level playing field for all utility scale project developers and protects the interests of development projects that are already substantially complete. First Wind believes that S.B. 623 SD2 meets both of those objectives per the language in Section (a)(3)(A) and (B). However, S.B. 623 SD2 adds the concept of a not to exceed number or cap for each of these sections. A cap would create uncertainty for utility scale developers regarding whether or not their projects would qualify for and receive the credit. It is unclear from the proposed language if this cap is intended to be a total for the qualifying project or the PTC in total on an annual or life of the credit basis. Regardless of the intended application of a cap, the risk a cap would create will make it

difficult for a developer to assess the benefit of the PTC when calculating the necessary PPA price. Project developers need to know what to expect regarding costs and credits in order to appropriately set their prices and acquire financing. With a cap in place, any individual project cannot accurately assess its ability to qualify for and receive the tax credit in full, making it difficult to secure financing.

First Wind recommends that a more appropriate way to "cap" the credit is through a requirement that a project has to reach commercial operation by a date certain, in order to qualify for the credit. For example, projects wishing to qualify under Section (a)(3)(A) may be required to meet commercial operation by December 31, 2020. Given that the pool of potentially eligible projects under Section (a)(3)(B) is small and identifiable, First Wind would submit that no cap of any kind is needed for projects in this category.

Additionally, First Wind recommends that the tax credit for projects in Section (a)(3)(B) be eight (8) cents per kilo-watt hour sold for the first one hundred twenty months of operation. We believe this allows these projects to maintain substantially the same pricing anticipated under the former tax rules.

With regard to the amount of the production tax credit under Section (a)(3)(A), First Wind's main objective is that this amount be the same for all projects qualifying under this section going forward. It is critical from a competitive standpoint that there be a level playing field for these projects.

First Wind supports the concept of S.B. 623 SD2, but recommends the changes proposed in this testimony to make it useful to utility scale developers from a risk and competitive standpoint. Thank you for the opportunity to testify on this bill.

Green Power Projects LLC

Alan Lennard
P.O. Box 818
Haleiwa, HI 96712
T 808.381-3447
alan.lennard@greenpowerprojects.com

March 12, 2013 8:30 AM

HOUSE OF REPRESENTATIVES
THE TWENTY-SEVENTH LEGISLATURE
REGULAR SESSION OF 2013

COMMITTEE ON ENERGY & ENVIRONMENTAL PROTECTION

Rep. Chris Lee, Chair
Rep. Cynthia Thielen, Vice Chair

SB 623 SD 2 **(SSCR762)**

TESTIMONY IN SUPPORT

Aloha Chair Lee and Vice Chair Thielen and committee members,

My name is Alan Lennard and I work in renewables.

I support the intention of this bill. It has the best tax credit version proposed to continue solar penetration statewide. Please support this language.

Please consider including in this bill language that will maintain the incentives at current level if increased ramp-down impacts the compliance with the Hawaii Renewable Portfolio Standard (ie. Unable to achieve or exceed required milestones). Additionally, it should be described in the legislation that the ramp-down of the renewable incentives should be reversed if a reduction in continued renewable Distributed Generation is markedly determined.

Please refer to the updated economic analysis of solar economic returns to the State of Hawai'i by Dr. Thomas Loudat. This report models the effective return of monetized incentives back into the state economy.

Thank you so very much for your consideration regarding this important issue.

Alan Lennard

alan

Managing Director

HAWAII ENERGY CONNECTION
Sustainable Energy Solutions

99-1350 Koaha Place
Aiea, HI 96701
P: 808-524-7336
F: 808-442-0040

To: Committee On Energy & Environmental Protection

Re: Testimony on SB 623 SD 2, Relating to solar tax credit

03/11/13

Hawaii Energy Connection, LLC (HEC) is a Hawaii based photovoltaic installation company with over 90 full time employees in addition to numerous independent sales representatives and outside contractors. HEC does work on all Islands in the State of Hawaii.

HEC is in partial support of SB 623 SD 2 with comments

Pertaining to solar energy property that is used primarily to generate electricity:

- HEC does not support separate incentive models for systems "less than one megawatt" and "more than one megawatt or larger" in size. Under the current version of SB 623 SD 2, the "less than one megawatt" forces a reduction in the tax credit percentage over time, while the "more than one megawatt or larger", under the proposed PTC model, will effectively increase the incentive percentage as PV pricing continues to fall. It is simply not fair to all projects and project developers. All PV incentives should use a single, simple and sustainable tax credit model.
- HEC supports a gradual ramp down of the tax credit over time starting at 30% while not dropping below 20%. Retroactive to Jan 1st 2013.
- To help improve cash flow of the State, we suggest the following text be inserted into the bill.

"For each solar property used to primarily generate electricity, is less than one megawatt in alternating current capacity, the tax credit must be taken in two equal installments over two successive taxable years beginning with the taxable year in which the credit is allowed."

"For each solar property used to primarily generate electricity, is more than one megawatt in alternating current capacity, the tax credit must be taken in four equal installments over four successive taxable years beginning with the taxable year in which the credit is allowed."

KUMUkit™
SOLAR ELECTRICITY

HAWAII ENERGY CONNECTION
Sustainable Energy Solutions

99-1350 Koaha Place
Aiea, HI 96701
P: 808-524-7336
F: 808-442-0040

- Need clarity on term "first placed in service" on Page 10 line 12 and Page 11 line 15. HEC does not support the idea of allowing a single tax credit per property. Many homeowners install their system over multiple years making it more affordable. Building a system over multiple years reduces the upfront cost to the consumer and opens this technology to a wider range of residences and businesses.
- HEC does not support any "special" exemptions for only systems "more than one megawatt or larger" as written starting on page 12 line 7 thru Page 13 line 8.

Mahalo,

Chris DeBone
Managing partner, Hawaii Energy Connection, LLC

TESTIMONY OF WARREN BOLLMEIER ON BEHALF OF THE
HAWAII RENEWABLE ENERGY ALLIANCE BEFORE THE
HOUSE COMMITTEE ON ENERGY & ENVIRONMENTAL PROTECITON

SB 623 SD2, RELATING TO RENEWABLE ENERGY

March 12, 2013

Chair Lee Vice-Chair Thielen, 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 623 SD2 are to: (i) replace the current renewable energy technology systems tax credit with tax credits for solar energy property and wind energy property, and (ii) require DOTAX and DBEDT to report tax credits claimed under section 235-12.5, HRS.

HREA **supports the intent this measure** with the following comments:

1) Residential-Small Commercial-Scale (<1 MW). SB 623 SD2 contains "blanks" in sections (a)(1), (a)(2), and (a)(4). We recommend that the Committee insert the percentages and cap amounts (contained in HB 497 HD3 into the "blanks") which closely track the percentages and cap amounts contained SB 623 SD1.
2) Utility-Scale Solar-Electric (≥ 1 MW). Similarly, there are "blanks: in section (a)(3) - the PTC for utility-scale projects. HREA supports replacement of this entire section (a)(3) of SB 623 SD2 with "compromise" language that has been drafted by industry members that previously held divergent views on the PTC treatment. This compromise language includes a three-tiered approach as follows:
    a) 8 cents/kWh. For projects installed on or before 12-31-2016.
    b) 6 cents/kWh. For projects installed after 12-31-2016 and on or before 12-31-2020, and
    c) 4 cents/kWh. For projects installed after 12-31-2020.

    Note; we also support "compromise language regarding critical technical revisions, including definitions of "property" and "basis," and the Clarification of the Credit for Utility Scale Wind Energy Property."
3) Issue of CAPs Utility-Scale Projects. SB 623 SD2 includes CAPs on utility-scale projects, but it is not clear whether the intent is to CAP the PTC on individual projects or in the aggregate. Either way, we oppose this proposal, as it will increase the risk and uncertainty regarding whether an individual project owner can count on qualifying and/or receiving the credit for the 10 year term. HREA contends that the number of potential projects and their fiscal impacts will be easy to forecast, given the lengthy time - 2 to 3 years or more that it takes to develop utility-scale projects in Hawaii.

Mahalo for this opportunity to testify.

INTER-ISLAND SOLAR SUPPLY

761 Ahua St., Honolulu, HI 96819 **OAHU** Phone (808) 523-0711 Fax 536-5586
73-5569 Kauhola St., Kailua-Kona, HI 96740 **BIG ISLAND** Phone (808) 329-7890 Fax 329-5753
400 Ala Makani St., Unit 103, Kahului, HI 96732 **MAUI** Phone (808) 871-1030 Fax 873-7825

March 12, 2013 (8:30 AM)
Testimony Before the House Committee on Energy and Environmental Protection
on
S.B. 623 SD 2 RELATING TO RENEWABLE ENERGY

Chair Lee, Vice Chair Thielen, Members of the Committee,

Good morning and thank you for hearing this bill on Hawaii's renewable energy technologies income tax credit (RETITC).

My name is Ron Richmond. I am the manager of business development for Inter-Island Solar Supply, a local wholesale/distributor of solar and related products founded in 1975 with branches on the islands of Oahu, Hawaii and Maui.

Inter-Island Solar Supply supports SB 623 SD2 and respectfully proposes the following for the committee's consideration.

Section 1, paragraph (a):

(1) Solar water heating *(fill in the blanks)*
  (A) $2,500
  (B) $500
  (C) $250,000
(2) Solar electricity < 1 MW *(change the dates)*
  (A) 35% before Jan. 1, 2014 *(avoid ex post facto challenges*)
  (B) 30% after Dec. 31, 2013 and before Jan. 1, 2016
  (C) 25% after Dec. 31, 2015 and before Jan. 1, 2018
  (D) 20% after Dec. 31, 2017
(3) Solar electricity ≥ 1 MW
  Make the incentives for big and small equitable.

Section 1, paragraph (h):

Clarify that allowed variances to "mandated" solar water heating systems are covered.

Section 1, paragraph (p):

The study needs to start 1 year earlier so the legislature will have the report prior to the beginning of the 2017 session. The future of federal tax credits will be known and measures can be taken to mitigate any market disruptions in the event the federal credits expire.

I respectfully request that this Committee consider incorporating the recommendations outlined above into SB 623 SD2.

Thank you for the opportunity to testify on this measure.

Solar Power Systems International

TESTIMONY OF JOHN CROUCH ON BEHALF OF SPSI, A RENEWABLE ENERGY COMPANY BASED IN HAWAII, BEFORE THE SENATE COMMITTEE ON ENERGY AND ENVIRONMENTAL PROTECTION

SB 623 SD2, RELATING TO RENEWABLE ENERGY

March 12, 2013

Chair Lee Vice-Chair Thielen, and distinguished members of the Committee, my name is John Crouch. I and my two local partners have been involved in the design and installation of renewable energy projects in Hawaii since the first large unit at Mauna Lani Bay Hotel and Bungalows in 1998. We are very concerned about the inconsistency in State renewable energy tax credit treatment and the negative impact it has on increased installation of renewable energy technology.

SPSI **SUPPORTS THIS MEASURE** and offers the following comments:

1. The DOTAX recent "Administrative Temporary Ruling" which in most cases reduced the effective tax credit by half for renewable energy technology systems is not acceptable.

2. This measure provides a way to clarify and simplify the administration of our tax credit policy that has propelled Hawaii into the forefront of renewable energy development. By adopting the intent of this measure, the renewable energy industry will have clarity of the tax credit structure for new projects. Clarity is as important as the tax credit itself.

3. SUGGESTION: We propose that the blanks in this measure for residential and small scale commercial projects less than 1MW, be filled with the percentages and caps contained in HB 497 HD3.

   We propose that the blanks in this measure for utility scale projects of 1 MW or greater, be filled in as follows:
   a) 8 cents/kWh. For projects installed on or before 12-31-2016
   b) 6 cents/kWh. For projects installed after 12-31-16 and on or before 12-31-2020
   c) 4 cents/kWh. For projects installed after 12-31-2020

4. We propose that the CAPS in this measure be removed in order to remove the risk of tax credits being denied to projects that take a long time to develop.

Mahalo for the opportunity to testify.

Solar Power Systems International, LLC – P.O.Box 38-4299 – Waikoloa, Hi. 96738 John@spsintl.net