DAVID Y. IGE
GOVERNOR

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LT. GOVERNOR

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CATHERINE P. AWAKUNI COLÓN
DIRECTOR

JO ANN M. UCHIDA TAKEUCHI
DEPUTY DIRECTOR

TO THE HOUSE COMMITTEE ON ENERGY & ENVIRONMENTAL PROTECTION

THE TWENTY-EIGHTH LEGISLATURE
REGULAR SESSION OF 2015

TUESDAY, FEBRUARY 3, 2015
8:30 a.m.

TESTIMONY OF JEFFREY T. ONO, EXECUTIVE DIRECTOR, DIVISION OF CONSUMER ADVOCACY, DEPARTMENT OF COMMERCE AND CONSUMER AFFAIRS, TO THE HONORABLE CHRIS LEE, CHAIR, AND MEMBERS OF THE COMMITTEE

HOUSE BILL NO. 212 – RELATING TO TAXATION

DESCRIPTION:

This measure proposes to establish a nonrefundable income tax credit for taxpayers who purchase and install battery backup systems for solar energy systems.

POSITION:

The Division of Consumer Advocacy offers comments to this bill.

COMMENTS:

Battery backup systems that would delay the delivery of electricity that was generated and stored using excess energy from solar photovoltaic ("PV") systems could be the "game changer" in integrating greater and greater amounts of renewable energy on to the grid. Batteries and other storage devices have the potential to provide significant ancillary services to the grid that help smooth out the variability of most renewable energy technologies. Currently, energy storage systems are expensive. Batteries can add thousands of dollars to the cost of a rooftop solar PV system. Moreover, most batteries are predicted to have a useful life of 10 years compared to the useful life of a solar PV system of 20 years.

The Consumer Advocate appreciates the Legislature's desire to provide a tax credit to consumers who purchase and install battery backup systems for their solar energy systems. On the other hand, the Consumer Advocate is concerned that the current high cost of a battery backup system makes it affordable to only the very wealthy. Does this bill then provide a tax credit that will be disproportionately used by the wealthiest taxpayers?

Finally, the Consumer Advocate recommends a cautious approach to providing tax credits for the adoption of one particular technology over another. There may be other more cost-effective means of providing ancillary services other than energy storage. For example, demand response programs may be a less costly means of shifting energy demand away from the evening peak. Tax credits tend to create market distortions that do not result in a balanced, cost-effective portfolio of resources to meet Hawaii's energy needs.

Thank you for this opportunity to testify.

DAVID Y. IGE
GOVERNOR

SHAN TSUTSUI
LT. GOVERNOR

MARIA E. ZIELINSKI
DIRECTOR OF TAXATION

STATE OF HAWAII
DEPARTMENT OF TAXATION
P.O. BOX 259
HONOLULU, HAWAII 96809
PHONE NO: (808) 587-1540
FAX NO: (808) 587-1560

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

Date: Tuesday, February 3, 2015
Time: 8:30 A.M.
Place: Conference Room 325, State Capitol

From: Maria E. Zielinski, Director
Department of Taxation

Re: H.B.212, Relating to Taxation

The Department of Taxation (Department) appreciates the intent of H.B. 212 and offers the following comments.

H.B. 212 creates an income tax credit for purchase of a battery backup system used to store energy generated by a solar energy system. The credit is equal to twenty-five percent of the "actual cost" of the battery backup system, capped at various amounts for different types of property on which the battery backup equipment is installed.

The Department notes that the tax credit described in H.B. 212 uses language very similar to the existing tax credit for renewable energy equipment described in section 235-12.5, Hawaii Revised Statutes (HRS). The Department has concerns regarding the use of this language for another tax credit, as the renewable energy technology income tax credit has created substantial confusion among taxpayers in the past.

In particular, the use of the terminology "battery backup system" without a definition of the word "system" will create problems in administration of the credit. Using a per-system cap without defining the word "system" incentivizes the creation of a price structure based on maximizing the amount of credit paid out rather than the most efficient installation of equipment. As an alternative, the Department recommends lowering the credit amount and removing the cap on credit amounts.

The effective date in section 4 of H.B. 212 applies this tax credit to taxable years beginning after December 31, 2014. Since this is a new tax credit, adoption will require the Department to develop new forms, instructions and computer system enhancements. For these

reasons, if adopted, the Department requests that the effective date be extended to taxable years beginning after December 31, 2015.

Thank you for the opportunity to provide comments.

DAVID Y. IGE
GOVERNOR

LUIS P. SALAVERIA
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
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Statement of
LUIS P. SALAVERIA
Director
Department of Business, Economic Development, and Tourism
before the
HOUSE COMMITTEE ON ENERGY & ENVIRONMENTAL PROTECTION

Tuesday, February 3, 2015
8:30 AM
State Capitol, Conference Room 325

in consideration of
HB 212
RELATING TO TAXATION.

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

The Department of Business, Economic Development & Tourism (DBEDT) offers comments on HB 212, which would create a tax credit for battery backup systems.

DBEDT appreciates the concept of providing incentives for grid-supportive energy storage, which is aligned with the State's energy policy vision of a creating a modernized, intelligently-networked grid that provides economic, environmental and system benefits in a balanced, cost-effective and equitable manner. However, we are concerned that providing incentives for battery backup systems that are not necessarily grid-connected would not be in the best interest of the State as it would not support overall grid modernization efforts.

Further, as it pertains to the interconnection of storage systems, we urge the legislature to consider this matter under a broader utility planning perspective. Specifically, the interconnection of storage systems is currently being reviewed under the various interrelated PUC proceedings[1]. Further, recommendations among energy stakeholders are either being

[1] Reference Docket No. 2011-0206 Hawaiian Electric, Inc.'s Power Supply Improvement Plan, Docket No. 2012-0212 Hawaii Electric Light Power Supply Improvement Plan, Docket No. 2011-0092 Maui Electric Power Supply Improvement Plan, Docket No. 2014-0192 Instituting a Proceeding to Investigate Distributed Energy Resource Policies, Docket No. 2014-0192 Regarding a Proceeding Investigate Distributed Energy Resource Policies; Docket

formulated[2] or have been submitted to the PUC. Therefore, we suggest that this measure be held pending an update from DBEDT and other energy stakeholders (at the discretion of the legislature) later this Legislative Session on the progress of those recommendations.

We defer to the Department of Taxation on its ability to administer the requirements of this bill.

Thank you for the opportunity to offer these comments on HB 212.

No. 2014-0130 Hawaiian Electric Companies, Inc. Application For Approval to Modify Rule 14H – Interconnection of Distributed Generating Facilities Operating in Parallel With the Companies' Electric System.

[2] Per regulatory procedure under Docket No. 2014-0130, stakeholder recommendations on the interconnection process of storage systems and related definitions are to be submitted to the PUC by February 19, 2015.

Hawaii Solar Energy Association
Serving Hawaii Since 1977

Before House Committee on Energy and Environmental Protection
Tuesday, February 3, 2015, 8:30 a.m., room 325
HB 212: Relating to Taxation

Aloha Chair Lee, Vice Chair Green and members of the Committee,

On behalf of the Hawaii Solar Energy Association (HSEA), I would like to testify in support for HB 212 which establishes a non refundable income tax credit for taxpayers who purchase and install battery backup systems for solar energy systems. HSEA is a non-profit trade organization that has been advocating for solar energy since 1977, with an emphasis on residential and small commercial distributed generation for both solar hot water (SHW) and photovoltaics (PV). We currently represent 90 member companies, which employ thousands of local employees working in the solar industry. With 37 years of advocacy behind us, HSEA's goal is to work for a sustainable energy future for all of Hawaii.

Energy storage is key to Hawaii's energy future

Energy storage is the missing link that will allow Hawaii to make the best use of our many indigenous resources, and to greatly reduce our dependence upon imported fossil fuels. Hawaii is blessed with an abundance of indigenous energy resources, but we must have the infrastructure in place that will allow us to have energy available when we need it, and the means to ensure that our grid can be maintained in a safe and reliable manner. Unlike other jurisdictions, Hawaii's load (customer demand) and renewable generation do not necessarily occur at the same. This means that excess energy generated from renewable resources is wasted and results in our continued reliance upon fossil fuels to provide energy when renewables are not available. Energy storage fixes this issue, both by providing the means to store excess energy for when we need it, in addition to providing a variety of grid services that would serve to enhance grid reliability and safety for all ratepayers.

Energy storage would shift peak load and could provide valuable ancillary services

Specifically, the implementation of a robust network of energy storage as energy backup for PV would provide a variety of grid benefits. First, energy storage would allow excess energy from renewable generation to be shifted for use at peak load—a valuable service that could be provided by customers with roof top PV and battery back-up. In addition, energy storage could serve to offset or reduce the need for grid improvements and upgrades, as energy produced locally could be stored and consumed locally as needed, thus lessening the impact on distribution level infrastructure. Energy storage can also play a key role in providing grid services such as voltage and var support on the distribution level, in addition to system wide services such as frequency support and emergency backup.

HB 212 is fiscally prudent

Finally, HB 212 is fiscally prudent and a sound investment in our state's future as we strive to reduce our dependence upon imported fossil fuels. HB 212 provides a safe guard to the state in the form of a cap on investment which would limit investment to no more than $10,000 per year for residential systems. Next, and most importantly, HB 212 would make the best use of the federal renewable energy investment tax credit which currently provides a 30% federal tax credit for energy storage connected with photovoltaics

through 2016. The Hawaii Renewable Energy Investment Tax Credit does allow storage, but the $5,000 cap would render all but the smallest systems ineligible. Now is the time to make the most of the federal credit while we still have it, and it would be a waste not to use the credit to improve our energy infrastructure.

Thank you for the opportunity to testify.

Leslie Cole-Brooks
Executive Director
Hawaii Solar Energy Association



HOUSE COMMITTEE ON ENERGY AND ENVIRONMENTAL PROTECTION

February 3, 2015, 8:30 A.M., Room 325

(Testimony is 1 page long)

TESTIMONY IN SUPPORT OF HB 212

Aloha Chair Lee, Vice-Chair Lowen, and members of the Committee:

The Blue Planet Foundation supports HB 212, to facilitate and encourage the use of renewable energy by incentivizing the use of energy storage backup technologies and systems. In particular, HB 212 targets solar energy backup. Solar energy is an obvious source of clean energy for Hawaii; with more solar storage backup, our energy system can become as reliable as the sunrise. Energy storage tax incentives have successfully boosted the installation of solar power in the state, and can do the same for solar energy storage.

Thank you for this opportunity to testify.

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

Testimony before the
House Committee on Energy & Environmental Protection

H.B. 212 – Relating to Taxation

Tuesday, February, 3, 2015
8:30 AM, Conference Room 325

By Darren Ishimura
Manager, Grid Technologies
Hawaiian Electric Company

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

My name is Darren Ishimura, Manager of Grid Technologies at Hawaiian Electric. I am testifying on behalf of Hawaiian Electric and its subsidiary utilities, Maui Electric and Hawai'i Electric Light (collectively the "Hawaiian Electric Companies").

Hawaiian Electric supports the intent of H.B. 212, but recommends the following guiding principles to be incorporated in future drafts of this bill:

- Tax credits for energy storage, as funded by ALL taxpayers in the State, should be made available to a broad customer base that facilitates applications not limited to solar generation and that can provide grid reliability benefits for ALL customers, including grid-connected energy storage systems, electric vehicles, and demand response.
- Tax credits for energy storage should be available to electric utilities to lower costs of projects, programs, and services that can result in cost savings for ALL customers.
- The bill should clearly define applicable "systems" that qualify for the tax credit to avoid unintended situations, including but not limited to, claims of multiple tax credits or dollar amounts outside the intent or scope of the tax credit.
- Tax credits for energy storage must not incentivize customers to leave the electric grid nor create or exacerbate any cost shift situations that unduly favor a subset of customers at the expense of others.

The above recommendations will create a more fair and balanced tax credit that, if managed under a broad and sustainable approach, will help Hawai`i achieve its clean energy future.

Thank you for the opportunity to testify on this measure.

SUBJECT: INCOME, Credit for battery backup for solar energy system

BILL NUMBER: HB 212

INTRODUCED BY: Nishimoto

EXECUTIVE SUMMARY: Proposes an income tax credit for a battery backup for a solar energy system. The proposed credit would result in a subsidy of such devices as it would merely grant a tax credit for such purchase irrespective of a taxpayer's need for tax relief.

BRIEF SUMMARY: Adds a new section to HRS chapter 235 to allow taxpayers to claim a tax credit for a battery backup system installed and placed in service during a tax year. The amount of the credit shall be 25% of the actual cost of the system and shall not exceed $10,000 per system for a single-family residential property; $_____ per unit per system for a multi-family residential property; and $250,000 per system for a commercial property.

Defines "battery backup system" as any identifiable facility, equipment, apparatus, or the like that uses batteries to store electrical energy generated by a solar energy system for use during times when no solar resources are available to generate power. Defines "actual cost" for purposes of the measure.

Credits in excess of a taxpayer's income tax liability may be applied to subsequent income tax liability until exhausted. Requires all claims for the credit to be filed on or before the end of the twelfth month following the close of the taxable year. The director of taxation may adopt rules pursuant to HRS chapter 91 and prepare the necessary forms to claim the credit and may require proof of the claim for the credit.

EFFECTIVE DATE: Tax years beginning after December 31, 2014

STAFF COMMENTS: It appears that this measure is proposed to encourage taxpayers to purchase battery backup systems by allowing taxpayers to claim a 25% tax credit for the costs of a system.

While some may consider an incentive necessary to encourage the use of energy conservation devices as well as a battery backup system, it should be noted that the high cost of these energy systems limits the benefit to those who have the initial capital to make the purchase. It is doubtful that the state credits alone will encourage many more taxpayers to utilize this technology given the scarcity and the relative high cost to acquire.

Lawmakers need to remember two things. First, the tax system is the device that raises the money that they, lawmakers, like to spend. Using the tax system to shape social policy merely throws the revenue raising system out of whack, making the system less than reliable as there is no way to determine how many taxpayers will avail themselves of the credit and in what amount. The second point to remember about tax credits is that they are nothing more than the expenditure of public dollars albeit out the back

door. If, in fact, these dollars were subject to the appropriation process, would taxpayers be as kind about the expenditure of these funds when schools go wanting for books and repairs, or when there isn't enough money for social service programs.

Utilizing tax credits other than to alleviate an excessive tax burden cannot be justified and is of a questionable benefit relative to the cost for all taxpayers. If lawmakers want to encourage the use of clean energy storage systems by reducing the cost of such systems, then a direct appropriation to subsidize that cost would be more accountable and transparent.

Digested 2/2/15

EEPtestimony

From: mailinglist@capitol.hawaii.gov
Sent: Monday, February 02, 2015 3:34 PM
To: EEPtestimony
Cc: josh@mauisolarproject.org
Subject: Submitted testimony for HB212 on Feb 3, 2015 08:30AM

HB212
Submitted on: 2/2/2015
Testimony for EEP on Feb 3, 2015 08:30AM in Conference Room 325

Submitted By	Organization	Testifier Position	Present at Hearing
Josh Porter	Maui Solar Project	Support	No

Comments: We are in a time when the electric companies are changing the way solar contracts are handled, lessening the value of a PV system, and island living can be unpredictable with tsunami and powerful storms that knock out grid-power. This bill allows the homeowner to purchase an off-grid or a battery backup system to power their roof top solar giving their family the security they need in times of disaster. The cost savings with the tax incentive will make this technology affordable for everyone, Tax credits pl ayed a critical role in the widespread adoption of Solar PV taking us from 800 PV systems in 2008 to 50,000 systems today. We need to provide that critical support to Renewable Energy Storage in the same manner in order to ensure its successful adoption here in Hawaii. Josh Porter President Maui Solar Project

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.

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EEPtestimony

From: Colleen Wallis <cee@hawaii.rr.com>
Sent: Monday, February 02, 2015 9:44 AM
To: EEPtestimony
Subject: Clean energy

Dear Representatives,
I strongly support any and all clean energy bills. Living in Hawaii where we have constant sunshine and fairly good weather, it seems foolish that we should have to pay for high energy bills.
Please pass the bill that will give us more clean energy.
Sincerely,
Colleen Miyose- Wallis
Kailua, Kona resident

2/1/2015
Energy & Environmental Protection Committee

HB 212
RELATING TO TAXATION
Battery Backup System Tax Credit

Dear Chair, Vice-Chair, and Members of the Committee:

There have been many milestones in renewable energy here in Hawaii. Perhaps we are at the start of a new milestone. Batteries.

Six years ago and prior, many residents were installing solar water systems. Solar Water had always been a much more of a cash outlay for local residents. But when homeowners factored in the saving in electricity coupled with the tax credit, it made a lot of sense.

Five to six years ago we started to see PV systems installed. At this time it was always wise to install solar water first, then offset the rest of the electric bill with PV. These first systems were much more expensive than they are today. Yet, they still made sense. As PV has become more affordable, and solar water has remain unchanged, many are opting out of solar water. This is a significant milestone.

The early PV adopters paved the way for many who have recently installed PV. They have because just like with electric cars, which currently are not cost effective, the initial sales spur innovation and economies of scale that lead to cost effectiveness over the long haul. Miles pre gallon mandates can spur innovation as well.

When it comes to PV in Hawaii, we have the opposite of a miles per gallon mandate happening. We have HECO. And ultimately NextEra.

This is probably the most significant milestone. Just ask those in in Florida where it has become illegal for an individual homeowner to enjoy energy independence. What's next? Is Safeway going to ban me from growing my own vegetables?

As in the early days of PV, batteries are disproportionally expensive. I believe a tax credit similar to the solar credit would enable many early

adopters to install battery systems.

Batteries will prove important in many situations.

1) Grid outages are becoming all to common due to aging infrastructure.

2) For many Kupuna, electricity is a matter of life and death.

3) Mitigate the lower NEM compensation recently proposed by Heco

4) Take Heco approval out of the equation.

5) In situations where there is a different rate at different times of the day, known as tier shaving.

6) The next big storm, tsunami or lava flow.

Thank you for the opportunity to testify.

Mark Ida
markida@gmail.com

THE ALLIANCE FOR SOLAR CHOICE

HOUSE COMMITTEE ON ENERGY & ENVIRONMENTAL PROTECTION

February 3, 2015,
(Testimony is 1 page long)

COMMENTS ON HB 212

Late

Chair Lee and Members of the Committee:

The Alliance for Solar Choice (TASC) appreciates the opportunity to comment on HB 212, relating to taxation.

TASC advocates for maintaining successful distributed solar energy policies and markets throughout the United States. Members of TASC represent the majority of the nation's rooftop solar market and include Demeter Power, Silevo, SolarCity, Solar Universe, Sunrun, Verengo, and ZEP. Collectively, TASC members serve a majority of the solar customers in Hawaii.

Energy storage is an important component of building a modern grid. Energy storage technologies can help avoid the need for massive investments in distribution, sub-transmission, transmission and generation assets, while allowing more customers to take advantage of cleaner and cheaper power sources. Moreover, storage — in association with smart policies like time of use rates — can encourage all customers to be a part of the solution in bringing down prices and increasing the reliability of the grid.

A well-designed storage tax credit — one that incentivizes investments in emerging technologies that benefit the public good and create the opportunity for an industry to grow to scale — is simply smart policy. **And, yet, we currently do not have the information to establish good tax implementation policy.**

Hawaiian Electric currently ***prohibits*** customers from installing solar systems with storage technology on the grid. A week or two ago, Hawaiian Electric proposed a storage pilot of 1,000 homes, but it's unclear if and when this might happen. Until there is an option where all customers can install storage, a tax credit is not the limiting factor.

Further, advanced solar systems and energy storage is currently being considered by the Public Utilities Commission. The technological requirements and rates proposed will impact the size of a storage system needed, the functions needed, the relative-cost, and the need for a tax credit to incentivize this system. For example, a well-designed time-of-use rate might decrease the amount of a storage credit necessary. Giving the PUC the opportunity to consider this issue seems appropriate so that the Legislature can create a well-designed tax credit.

Thank you for considering our comments.

Late

2/4/2015	**House Committee on Energy & Environmental Protection**	**ENE**
8:30 a.m.		**HB 212**

TESTIMONY IN SUPPORT

Dear Chair Lee, Vice Chair Lowen, and Members of the Committees:

Hawaii PV Coalition ("HPVC") supports efforts to such as this measure accelerate the deployment of energy storage options, which will advance the state's ambitious renewable energy goals and weaken our crippling dependence on imported fossil fuels.

For this reasons, we support HB 212. 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.

PO Box 81501 | Haiku, HI 96708 | 808.579.8288 | 808.575.9878 (f) | info@hawaiipvcoalition.org | hawaiipvcoalition.org

EEPtestimony

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, February 03, 2015 10:19 AM
To: EEPtestimony
Cc: kathleenramey@gmail.com
Subject: Submitted testimony for HB212 on Feb 3, 2015 08:30AM

HB212 Late
Submitted on: 2/3/2015
Testimony for EEP on Feb 3, 2015 08:30AM in Conference Room 325

Submitted By	Organization	Testifier Position	Present at Hearing
Kathleen Ramey	Individual	Support	No

Comments: Please pass this bill. It is important to People like myself who invested my life savings for solar and now with the merger they will raise our cost to be connected to the grid. It will save so much food spoilage costs in major storms and help the State of Hawaii reach its goal for being sustainable and using less oil. It could also help prevent brown outs and black outs as our summers get hotter. It's the right thing to do as our storms get worse--very important --People will depend on us who get it in major storms when power is lost-we could really make a difference I our neighborhoods. Aloha, Kathleen Ramey

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.

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