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TO THE HOUSE COMMITTEE ON FINANCE

THE TWENTY-EIGHTH LEGISLATURE
REGULAR SESSION OF 2016

TUESDAY, APRIL 5, 2016
2:31 P.M.

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

SENATE BILL NO. 2738, S.D. 2, H.D. 1 - RELATING TO RENEWABLE ENERGY

DESCRIPTION:

This measure proposes to establish an energy storage system rebate program to provide qualified individuals a one-time rebate for installing an eligible energy storage system within the State.

POSITION:

The Division of Consumer Advocacy ("Consumer Advocate") opposes this bill.

COMMENTS:

By taking \$50 million from the Hawaii Green Infrastructure Loan Program, with no repayment mechanism, this bill is saddling a subset of utility customers with lower-than-average wealth and income with the energy storage rebate program's cost. The money for the rebate program will come through the Public Benefits Fee, which is not paid by utility customers with rooftop solar or members of KIUC. This cost shift is regressive.

Energy storage undoubtedly will play an important role in stabilizing the electricity grid as greater amounts of intermittent renewable energy are added to the electricity generation mix. On the other hand, and however this incentive is financed, energy storage is not the only means by which grid stabilization can be achieved. Energy

efficiency, demand response, and fast starting and ramping generating units will also be key components in accommodating intermittent resources. Providing an incentive for any given resource distorts apparent costs in a time of rapidly changing technology. The Consumer Advocate believes that economics and actual costs, without subsidies, should drive the selection of energy resources.

At present, energy storage technologies, such as battery storage, have been improving, with costs declining in recent years. In spite of this recent trend, energy storage systems are still very expensive as compared to other alternatives that can be used to modernize the grid. As a result, energy storage systems are likely to be affordable to only the wealthiest consumers until further significant price decreases occur. An incentive that might encourage wealthy consumers to further decrease their contributions to the grid, often in excess of any decrease in their use of the grid, would have the potential unintended consequence of placing a greater financial burden on less affluent consumers – such as renters – who must contribute to the grid equal to or greater than their use of the grid, without being able to offset their load with rooftop solar photovoltaic systems and/or take advantage of energy storage systems. The Consumer Advocate therefore objects to this proposed incentive that will be potentially detrimental to low income ratepayers and may unduly affect technology investment decisions that should be primarily guided by current and actual costs.

Thank you for this opportunity to testify.



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

DAVID Y. IGE
GOVERNOR

LUIS P. SALAVERIA
DIRECTOR

MARY ALICE EVANS
DEPUTY DIRECTOR

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

Tuesday, April 5, 2016
2:31 p.m.
State Capitol, Conference Room 308

in consideration of
SB 2738, SD2, HD1
RELATING TO RENEWABLE ENERGY.

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

The Department of Business, Economic Development & Tourism (DBEDT) offers comments with concerns on SB 2738, SD2, HD1, which, establishes an Energy Storage System Rebate Program funded through \$50 million from the Hawaii green infrastructure special fund to provide qualified individuals a one-time rebate for installing an eligible energy storage system within the State. HD1 significantly amended this measure by incentivizing energy storage systems through a rebate instead of a tax credit.

While we appreciate the intent of providing rebates for energy storage systems, DBEDT has concerns with the amendments under HD1, including:

- The Hawaii green infrastructure special fund is not the appropriate source for funding the Energy Storage System Rebate Program; the Hawaii green infrastructure special fund was intended and designed as a loan program, not a rebate program. Taking this into consideration, and acknowledging the success of the Renewable Energy Income Tax Credit (REITC) in decreasing Hawaii's reliance on fossil fuels, stimulating our economy, and driving innovation, DBEDT would support a ramp-down of the tax credit for traditional solar electrical generation systems, if it was done in a budget-

neutral way to make room in the State budget for other grid-supportive renewable energy resources, similar to what had been proposed by earlier versions of this measure. This is important given the limited State budgetary resources.

- With regards to the exceptions (page 6, lines 9-18) that allow an energy storage system to be eligible for the rebate, DBEDT is concerned that allowing customers to install and receive rebates for energy storage systems that have not received interconnection approval through the appropriate review process established by the Public Utilities Commission (PUC); will usurp the PUC's authority and its rules, which were developed through substantial public comment and collaboration.
- It is unclear which agency is required to administer the energy storage system rebate program. The measure states that the 'department' (page 1, line 6) shall administer this program, but it does not specify whether the 'department' is referring to DBEDT or the Hawaii Green Infrastructure Authority. If this measure moves forward and assuming that the Hawaii green infrastructure special fund is not the implementing "department," DBEDT notes that the funds and staff required to implement this bill are not fully addressed in its current budget.

Thank you for the opportunity to offer these comments.

DAVID Y. IGE
GOVERNOR



SARAH ALLEN
ADMINISTRATOR

PAULA A. YOUNGLING
ASSISTANT ADMINISTRATOR

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TESTIMONY
OF
SARAH ALLEN, ADMINISTRATOR
STATE PROCUREMENT OFFICE

TO THE HOUSE COMMITTEE
ON
FINANCE

April 5, 2016, 2:31 p.m.

SB 2738 S.D.2 H.D.1
RELATING TO RENEWABLE ENERGY

Chair Luke, Vice-Chair Nishimoto, and members of the committee, thank you for the opportunity to submit testimony on SB 2738 S.D. 2 H.D.1. The State Procurement Office's (SPO) comments are limited to page 2, Section 1(a)(5), which states that the department "may contract with a third party for services to assist with administering the energy storage system rebate program" and the procurement of the services shall be exempt from chapter 103D.

The SPO opposes allowing the department an exemption from chapter 103D. The Hawaii Public Procurement Code (code) is the single source of public procurement policy that is applied equally and uniformly, while providing fairness, open competition, and a level playing field. It also provides government disclosure and transparency in the procurement and contracting processes, which is vital to good government and prevents favoritism, collusion, or fraud in awarding of a contract. To legislate exemption from compliance with the code conveys a sense of disproportionate equality in the law's application,

An exemption also does not have the same oversight, accountability and transparency requirements mandated by those procurement processes provided in the code. Leveraging economies of scale and cost savings efficiencies found in the consistent application of the procurement code would also be lost.

Statutorily relieving public bodies from procurement laws by exemption or excluding them from compliance with a common set of legal procurement requirements, creates an imbalance wherein the future competitive environment becomes an arbitrary decision, less efficient and costlier for the taxpayers, state and vendors.

The SPO recommends that the department be required to procure in accordance with chapter 103D for services of a third party to assist with administering the energy storage system rebate program.

Thank you.



DAVID Y. IGE
GOVERNOR

TARA M. YOUNG
EXECUTIVE DIRECTOR

HAWAII GREEN INFRASTRUCTURE AUTHORITY

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Statement of
TARA YOUNG
Executive Director
Hawaii Green Infrastructure Authority
before the
HOUSE COMMITTEE ON FINANCE

Tuesday, April 5, 2016
2:31 p.m.
State Capitol, Conference Room 308

in consideration of
SB 2738, SD2, HD1
RELATING TO RENEWABLE ENERGY.

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

The Hawaii Green Infrastructure Authority (HGIA) offers comments with concerns on SB 2738, SD2, HD1 which establishes an energy storage system rebate program to be funded with \$50 million from the HGIA special fund.

- The GEMS program was established to make green infrastructure loans, not to provide rebates. The GEMS program loan repayments are committed to replenishing the Public Benefits Fund each year following the payment of necessary cost items.
- While energy storage is an eligible clean energy technology that could be financed through a GEMS loan program, an energy storage system rebate program is not included in the PUC-approved Program Order dated September 30, 2014.
- There exist other funding resources, such as the Public Benefits Fee Programs, that are specifically designed for rebates to help offset the cost of installing clean energy equipment.

We defer to the Public Utilities Commission and the Consumer Advocate for the appropriate resource that may be available for this renewable energy program.

Thank you for the opportunity to offer these comments regarding SB 2738, SD2, HD1.

TAX FOUNDATION OF HAWAII

126 Queen Street, Suite 304

Honolulu, Hawaii 96813 Tel. 536-4587

SUBJECT: INCOME, Energy Storage System Rebate Program

BILL NUMBER: SB 2738, HD-1

INTRODUCED BY: House Committee on Energy & Environmental Protection

EXECUTIVE SUMMARY: Proposes a rebate program for energy storage systems. Previous versions of the bill proposed an income tax credit for such devices, but the current draft of the bill is for a rebate program, which is much less of a burden on the tax system.

BRIEF SUMMARY: Adds a new section to HRS chapter 196 to establish an energy storage system rebate program, to be administered by the department of business, economic development, and tourism (DBEDT).

Each person that purchases and installs in this State an eligible energy storage system may apply to DBEDT, within twelve months of the eligible energy storage system being first placed into service, to claim a one-time rebate, as follows:

- When the funds remaining in the energy storage system fund are greater than \$35 million, the rebate amount is the lesser of 25 cents per watt-hour of the system's capacity of useable stored energy or the cap amount stated below.
- When the funds remaining in the energy storage system fund are greater than \$20 million, the rebate amount is the lesser of 20 cents per watt-hour of the system's capacity of useable stored energy or the cap amount stated below.
- When the funds remaining in the energy storage system fund are not greater than \$20 million, the rebate amount is the lesser of 15 cents per watt-hour of the system's capacity of useable stored energy or the cap amount stated below.
- The cap amount is \$5,000 per system for single-family residential property, and \$100,000 per system for commercial and multi-family residential properties.

The program applies to eligible energy storage systems that are installed and first placed in service after December 31, 2016.

Amends HRS section 196-65 to transfer \$50 million from the Hawaii green infrastructure special fund to the energy storage system fund. Provides that the latter shall be used to pay rebates under this program and DBEDT's administrative costs for operating the program.

Makes conforming amendments.

EFFECTIVE DATE: Upon approval.

STAFF COMMENTS: This measure is proposed to encourage taxpayers to purchase residential energy storage systems by allowing taxpayers to claim a rebate based on the storage capacity of a system.

This approach is preferable to an income tax credit, which previous versions of this measure used. First, the tax system is the device that raises the money that 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 it is very difficult to determine how many taxpayers will avail themselves of the credit and in what amount. Second, tax credits are nothing more than the expenditure of public dollars, but 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 students are roasting in our schools, 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. Furthermore, a tax credit would require changes to tax forms and instructions, reprogramming, staff training, and other costs that could be massive in amount compared to the loss in revenue from the credit.

Getting the money for this program by raiding the Green Infrastructure Special Fund, however, is quite a different issue.

This fund concerns GEMS, which stands for Green Energy Market Securitization, a program adopted by our state government in Act 211, SLH 2013. It is codified in Hawaii Revised Statutes chapter 196, part IV.

The idea behind GEMS is that the state wanted to facilitate the buildout of "clean energy infrastructure," which was seen as a necessary step to reaching a goal of 70% clean energy by 2030. (This was under Gov. Abercrombie's administration, before the current goal of 100% clean energy by 2045 was signed by Gov. Ige.) GEMS is a financing program that provides low-cost capital to finance solar photovoltaic systems and other clean energy improvements for those who may otherwise have difficulty obtaining financing for these projects. Low-credit homeowners and renters, as well as nonprofits, are among those who qualify for project financing through GEMS. The "securitization" part refers to how this money was going to be raised. The plan was for the State to raise \$150 million on the bond market. Those dollars would then be loaned to these individuals and business entities so they could purchase renewable energy systems or other energy efficiency paraphernalia.

Remember that "raising the money in the bond market" means borrowing it. That money needs to be paid back, with interest. That's where ordinary folks who get an electric bill every month come in. Buried in the electric bill is a "Green Energy Infrastructure Fee" collected by the utility and passed on to DBEDT. For residential customers, the fee was \$1.29 per month from December 2014 through June 2015. It went up to \$1.42 per month through December 2015, and is anticipated to be \$1.30 per month for the first half of 2016. Commercial customers, of course, pay more.

This fee pays for principal, interest, and other charges. According to "Revenue Requirements Certificates" filed by DBEDT with the PUC in Docket 2014-0134, principal and interest on the

bonds exceeds \$6.5 million every six months, and there are other financing costs, most of which were expended in the beginning to set up and market the bond issue. Now, according to official filings with the Public Utilities Commission in Docket 2014-0135, through September 30, 2015, exactly zero was deployed. We understand that to date, only a handful of consumer loans have been approved.

Apparently the loan program took a while to set up. Although the bonds were sold in November 2014 and the \$150 million was ready to be deployed then, the program didn't even begin taking applications until March 2015 for nonprofits and June 2015 for individuals. As of September 30, there were around 250 applications received. There were some denials and some prequalification, but no final approvals were granted and no money went out. Meanwhile, over \$750,000 was spent on administrative costs since program launch, which doesn't include the millions in upfront legal, accounting, financing, and marketing costs necessary for the bond issue.

Apparently GEMS is an attractive target for raiding because most of the \$150 million raised in the bond issue is still there. But some things need to be remembered: First, it's a financing program, not a grant program. Second, it's been established for specific purposes.

The first point, that it is a financing program rather than a grant program, means that if we are using GEMS money we are supposed to be borrowing it. Principal and interest on the GEMS bonds were and are being paid by a surcharge on utility bills. If we use GEMS money, we need to pay it back in the future or we need to admit that the surcharge is an additional tax on the ratepayers.

The second point is that the financing program is for specific purposes, namely to fund green infrastructure costs, meaning clean energy technology like solar and wind; demand response technology; and energy use reduction and demand side management infrastructure, which infrastructure owners will then pay back. This is where the disconnect occurs: a rebate isn't paid back. Investors who bought bonds might not be happy about a significant deployment of the capital for purposes other than those mentioned in the GEMS statute as it existed when the bonds were sold. At a minimum we had better make sure that we are loaning the money at institutional market rates, and are not breaching covenants in the bond indenture.



Testimony before the House Committee on Finance
05APR16
Conference Room 308
S.B. 2738 SD2 HD1 – Relating to Renewable Energy
By Keiki-Pua Dancil, Ph.D.
Director, Business Strategy Development
Hawaiian Electric Company, Inc.

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

As the Director of Business Strategy Development at Hawaiian Electric Company, I am testifying on behalf of Hawaiian Electric and its subsidiary utilities, Maui Electric and Hawaii Electric Light (collectively “Companies”). The Companies **oppose this bill**.

Our vision is to deliver cost-effective, clean, reliable, and innovative energy services to ALL of our customers, creating meaningful benefits for Hawaii's economy and environment, and making Hawaii a leader in the nation's energy transformation. To drive our vision for Hawaii, we anchor our strategies in a set of common objectives: lowering customer bills, increasing renewables in our generation portfolio, modernizing our grid, and expanding customer options.

Hawaiian Electric is committed to achieve 100% RPS by 2045. This will require us to transform our business to include modernization of the generating fleet and grid, increased use of renewables, and expanded customer options. As we increase the amount of renewable energy production, energy storage, as well as other technologies, will play a significant role in distributing that energy throughout the day to coincide with demand, and providing ancillary services. Hawaiian Electric is supportive of energy storage as a customer option and has prepared the following guiding principles to assist in enacting policy for the benefit of ALL customers:

- Energy storage policies should promote or enable renewable energy production to help Hawaii achieve the state’s mandate of 100% RPS by 2045.
- Energy storage policies should provide overall cost effective grid benefits to ALL customers, not just those who choose to install batteries on their property.
- Should the state choose to enact policy to promote energy storage through investment tax credits (ITC) to customers who install energy storage, these customers should remain connected to the electric system for the life of the storage system to support the societal benefit for which these ITC are intended -- integrating more cost-effective renewable energy as we progress toward our state’s 100% RPS.

The S.B. 2738 SD2 HD1 draft is new; the language has never been proposed to any committee during this legislative session prior to this hearing. The bill is proposing a new mechanism to fund energy storage projects. S.B. 2738 SD2 HD1 establishes an energy storage system rebate program to provide qualified individuals a one-time rebate for installing an eligible energy storage system within the State.

The proposed mechanism is the Hawaii Green Energy Special Fund, associated with the GEMS loan program. The Companies defer to the Public Utilities Commission, Consumer Advocate, and the Hawaii Green Infrastructure Authority as to whether this is an allowed use of funds.

The Companies would like the committee to consider altering language in the bill to ensure that these energy storage systems be charged with a renewable energy source as we move to 100% RPS by 2045.

The Companies oppose language excluding the utility from receiving the same benefits (Page 6 line 3). For example, the Companies offer our customers various options, including different demand response programs which provide an incentive to customers for their participation in exchange for access to their devices such as grid interactive water heaters, which assist with operations of the electrical system.

Thank you for the opportunity to provide these comments.



Before the House Committee on Finance
Tuesday, April 5, 2016, 2:31 p.m., Room 308
SB 2738 SD 2 HD 1: Relating to Renewable Energy

Aloha Chair Luke, Vice Chair Nishimoto, and members of the Committee,

On behalf of the Distributed Energy Resources Council of Hawaii (“DER Council”), I would like to testify in general support of the intent of SB 2738 SD 2 HD 1 which establishes an energy storage rebate program to provide qualified individuals a one-time rebate for installing an eligible energy storage system. However, the DER Council believes that the senate version of this bill (SB 2738 SD 2) provides a far superior vehicle for an energy storage incentive. SB 2738 SD 2 amends the REITC by ramping down the credit and increasing the cap only for grid connected systems with energy storage systems. SB 2738 SD 2 saves the state money by ramping down the credit from 35% to 15% and incentivizes technology that will benefit all rate payers.

The DER Council is a nonprofit trade organization formed to assist with the development of distributed energy resources and smart grid technologies to support an affordable, reliable, and sustainable energy supply for Hawaii.

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. Unlike other jurisdictions, Hawaii’s load 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, by providing the means to store excess energy for later use—thus helping to shift peak load.

In addition, customer-sited energy storage would serve to off-set 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. SB 2738 also works in conjunction with several dockets currently before the PUC which underscore the need for distributed energy systems such as storage to help meet our clean energy goals. Finally, grid connected customer energy storage systems are customer invested and maintained. For every customer investment in energy storage, all rate payers benefit both in terms of grid services and an off set of rate-based utility development.

The DER Council therefore respectfully asks that you support SB 2738 HB 1 for the purposes of getting this important bill to conference. The Senate has taken a different approach with this bill, and once SB 2738 HD 1 is in conference legislators can ensure that the framework for this incentive is revenue neutral and saves the state money while incentivizing the best technology.

Thank you for the opportunity to testify.
Leslie Cole-Brooks
Executive Director
Distributed Energy Resources Council of Hawaii



Hawaii Solar Energy Association
Serving Hawaii Since 1977

**TESTIMONY OF THE HAWAII SOLAR ENERGY ASSOCIATION
IN REGARD TO SB 2738 SD 2 HD 1, RELATING TO RENEWABLE ENERGY
BEFORE THE
HOUSE COMMITTEE ON FINANCE
ON
TUESDAY, APRIL 5, 2016**

Chair Luke, Vice-Chair Nishimoto and members of the committee, my name is Hajime Alabanza, and I represent the Hawaii Solar Energy Association, Inc. (HSEA)

HSEA **supports** SB 2738 SD 2 HD 1 with comments. This measure seeks to amend §196, Hawaii Revised Statutes, to establish an energy storage rebate program as well as revising §196-64 to earmark \$50,000,000 from the Hawaii green infrastructure special fund (GEMS) to operate the program.

INTRODUCTION

Broadly, tax incentives and rebates for solar energy have been adopted by the state to advance the growth of renewable energy and, at a state level, accelerate progress towards a 100% renewable energy goal by 2045. A Bloomberg New Energy Finance study published in September of 2015 found that extending the Federal Solar Investment Tax credit to 2022 is likely to add 22GW of solar energy to the United States' energy infrastructure. Removal of the credit would have only led to 8GW of added PV.

As opposed to a tax credit for storage, this bill would provide a rebate program without requiring funding through the general fund. Essentially, instead of requesting monies from the state, the rebate would use funds already deposited in an existing program. To date, the GEMS program has only funded three separate loans for a total of \$107,000. The GEMS fund total balance as of December 31, 2015 is \$145,461,072.21.¹ This program has been largely ineffective since its conception in 2014. Furthermore, one of its stated mandates is to bring clean energy technology to Hawaii's ratepayers, of which only three have been allocated.

Although GEMS is not a rebate program, it is clear, due to several factors, that its financing structure is ineffective. This is in part due to the very same reasons that mark the solar industry. The slowdown in the solar market due to the end of NEM also impacts the GEMS program. However, the solar industry on the whole is more robust and able to adapt to market changes than GEMS and is also better able to utilize tax credits or rebate programs.

¹ See <http://gems.hawaii.gov/wp-content/uploads/2016/03/1-21-2016-Minutes-Approved.pdf>



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Technology, most notably energy storage, has to catch up to policy in Hawaii's market. As the energy storage market evolves and becomes more competitive, energy storage will become more affordable. Currently, energy storage technologies are just now beginning to enter the Hawaiian market and incentives should exist to boost the adoption of these technologies. Given the public utilities commissions as well as the state of our energy economy, bills like this one have significant precedent to be adopted.

COMMENTS AND AMENDMENTS

Although the Hawaii Solar Energy Association supports this bill, we offer the following comments and amendments to the bill as written so that the rebate program is better able to serve ratepayers.

Due to the scalability of solar energy systems, caution should be given to the amount of money available to various sizes of solar projects. For instance, any number of utility scale solar projects would deplete the fund at a much higher pace than a significantly larger number of residential or small business sized projects. Thus, we suggest that 50% of the funds in the rebate program be further allocated solely to residential and small to medium sized commercial projects. This language should be inserted on page 4, after section (c), while section (d) and (e) shall be relabeled (e) and (f) accordingly, and read as such:

(d) This section will designate 50%, or \$25,000,000 of the total funds in the energy storage system fund to only be applied to eligible energy storage systems equal or less than 30 kilowatts (kW) in size. The remaining funds shall apply to an eligible energy storage system of any size.

Section 3, subsection (4) on page 5 line 17 defines "eligible energy storage systems" to have a capacity of at least 2.5 kilowatts of continuous battery charge and discharge power. This limit puts restrictions on small sized systems that might otherwise qualify for a rebate. HSEA believes that this would restrict the market for small scale energy storage systems. We suggest the following language in Section 3, subsection (4) be amended as such:

(4) Has capacity of at least 2.5 kilowatts of continuous battery charge and discharge power and at least 2.5 kilowatt-hours of useable stored energy at time of purchase;

In the same section, under subsection (5) on page 6 line 1 the bill stipulates a ten year warranty or at least 3,000 cycles, which is a measure of battery life. HSEA suggests



Hawaii Solar Energy Association
Serving Hawaii Since 1977

lowering the warranty time to allow for a greater market penetration of some battery technologies while continuing to insulate the market from possibly exaggerated warranty claims. Intentionally or unintentionally, this language vastly limits energy market of viable options. The following language should be amended to read:

(5) Is protected by a manufacturer's warranty of at least ~~ten~~ five years or a minimum of three thousand cycles.

Again, special consideration should be given to any proposed amendment that deals with energy storage systems retrofitted to existing NEM interconnected solar systems. There is concern that modifying a previously installed solar system that is party to a NEM agreement prior to October 12, 2015 would void that NEM agreement. It appears to be the case that the HEI companies are interpreting page 164-165 of Docket 2014-0192, Decision and Order No. 33258², to include energy storage property as a means of additional generating capacity which would subsequently violate a previous NEM agreement if a customer were to retrofit an existing solar energy system with energy storage.³ A customer would most likely not want to void their current NEM agreement in favor of battery storage. Language should be inserted addressing this and protecting customer who chooses to install a battery system from voiding their NEM agreement. HSEA suggests that the following provision be added at Section 1 after what would become subsection (f) if the above amendments are to be adopted, prior to Section 2 and would read:

(g) No existing NEM or any other standard interconnection agreement shall be abrogated with the addition of an energy storage system pursuant to section 235-12.5(a)(3).

Thank you for the opportunity to testify.

² See PUC Docket No. 2014-0192, Decision and Order No. 33258 at pp. 164-165.

³ See HEI Press Release dated October 13, 2015 here: <https://www.hawaiianelectric.com/public-utilities-commission-approves-new-rooftop-solar-programs>



HOUSE COMMITTEE ON FINANCE

April 5, 2016, 2:31 P.M.

Room 308

(Testimony is 2 pages long)

TESTIMONY IN SUPPORT OF SB 2738

Aloha Chair Luke, Vice Chair Nishimoto, and Committee Members,

Energy Storage is a Key Part of the State's Renewable Energy Policy

Blue Planet Foundation supports SB 2738, which addresses the growing need to accelerate the adoption of energy storage in Hawai'i. Strategies and technologies to help balance energy supply and demand will play a key role in managing the cost and sustainability of Hawai'i's energy consumption. In particular, energy storage technologies will help Hawai'i to continue adding renewable energy (with declining prices), and reduce the state's exposure to volatile fossil fuels (with almost inevitably rising prices).

Prior drafts of the bill utilized the existing renewable energy tax credit as the mechanism to support energy storage. The bill also set in place a ramp-down of the renewable energy tax credit in coming years, reducing the credit available to taxpayers. The most recent draft of the bill (HD1) would change this mechanism to a rebate, and would leave the renewable energy tax credit at its current rate indefinitely, rather than ramping it down. If implemented correctly, either mechanism could work to support energy storage, although perhaps not with equal effectiveness.

We respectfully ask the Committee to pass this bill, so that the differences between the House and Senate versions can be fully examined and discussed.

Renewable Energy Incentives Can Benefit Everyone

More generally, Blue Planet strongly supports ensuring that renewable energy mechanisms will be supported by energy storage. Prior testimony on this bill erroneously suggested that the benefit of the renewable energy credit is limited to those that have the initial capital to make a purchase. This is incorrect. Modern financing mechanisms (such as solar leases) have made it possible for many households and businesses in the state to install renewable energy even if they don't have capital for a purchase. Continuing innovation and refinement of such mechanisms is likely to broaden this trend. Furthermore, while solar installations in early years were more prevalent in neighborhoods with a higher median income, data for later years showed this trend shifting, with the renewable energy accelerating fastest in neighborhoods with

lower median incomes. Unlike a gradual ramp-down, abruptly terminating a renewable energy tax credit at this stage would likely result in unfairly impacting residents in these neighborhoods. In addition, commercial renewable energy systems are also eligible for the credits set forth in the bill, and thus all electricity ratepayers can benefit in the form of lower prices paid if renewable electricity is sold to a utility and then re-sold to customers. Similarly, all residents are benefitting from a shift away from highly volatile fossil fuels and toward renewable energy. A February 2016 analysis by the National Renewable Energy Laboratory concluded that the recent extension of federal renewable energy tax credits will result in more rapid renewable energy development, with the accompanying clean energy benefits.¹ The proposed incentives in various drafts of SB 2738 can help Hawai'i capture these benefits for consumers.

Considering Storage Technologies in Addition to Batteries

Perhaps the most important change in HD1 is that the rebate mechanism in HD1 only addresses energy storage in the form of *batteries*. Blue Planet Foundation believes very strongly that *other energy storage technologies* should also be part of Hawai'i's energy solutions. Such technologies used in Hawai'i today include ice-storage air conditioning and grid-interactive water heating. By storing energy to be used later, these provide essentially the same function as batteries. But they may often be useful in situations where they are not paired directly with a renewable energy system like solar panels (e.g. condominiums). Other examples of energy storage, such as hydrogen created from excess renewable energy, will likely prove important in coming years. Batteries are undoubtedly playing a role, but they are not the only energy storage technology that should be considered in the state's energy policy. Prior drafts of SB 2738 recognized this point. If SB 2738 will continue to utilize a rebate mechanism, substantial revisions would be needed to address how the rebate would be implemented in a way that includes non-battery storage technologies. However, we believe that these issues can effectively be addressed in conference, reflecting on the differences between the House and Senate versions of the bill.

¹ Mai et al., *Impacts of Federal Tax Credit Extensions on Renewable Deployment and Power Sector Emissions* (Nat'l Renewable Energy Lab., Feb. 2016), available at <http://www.nrel.gov/docs/fy16osti/65571.pdf>



HOUSE COMMITTEE ON FINANCE

April 5, 2016, 2:31 P.M.
(*Testimony is 1 page long*)

TESTIMONY IN SUPPORT OF SB 2738 SD2 HD1

Aloha Chair Luke and Members of the Committee:

The Alliance for Solar Choice (TASC) respectfully supports SB 2738 SD 2 HD1, relating to renewable energy. This measure smartly incentivizes the deployment of energy storage, a needed technology if Hawaii is to achieve its aggressive clean energy goals.

This measure cleverly creates a rebate that diminishes over time as the energy storage technology is more broadly used and becomes more cost effective. It's a terrific way to "kickstart" an energy storage market. A similar mechanism was used in California — the California Solar Initiative — which helped initiate the current solar boom in the United States.

The source of the funding, the Green Energy Market Securitization program, was created exactly for this type of purpose: to help residents take advantage of renewable energy, energy storage, and energy efficiency so as to reduce his or her electric bill. The GEMS funding source arises out of the Public Benefit Fund which, for years, has provided rebates for CFLs, LEDs, and solar water heaters. Over the past two years, virtually none of the GEMS funding has been deployed. Ratepayers are ultimately on the hook for millions of dollars of interest payments on money that isn't being used for its intended purpose.

From an economic perspective, this measure is critically needed. A recent StarAdvertiser report noted that the solar industry is reeling from the recent decision to eliminate net energy metering and require that future installations to stop exporting power out onto the grid. While the solar industries future remains bright in Hawaii, these types of drastic changes do not happen over night. Hundreds, if not thousands, of employees have been put out of work. If we want to maintain an industry that has provided a substantial number of construction jobs — through a economic recession — we need to give the industry the time to make a healthy transition.

More importantly, this measure allows residents to become a part of the solution. To wit, they can generate clean, renewable energy and be a part of Hawaii's clean energy future.

Mahalo for the opportunity to submit these comments.

SUNPOWER[®]

To: The Honorable Sylvia Luke, Chair and Members of the House Committee on Finance

Date: April 5, 2016; 2:31 PM; Conference Room 308, State Capitol

Re: SB 2738 SD2 HD1

Dear Honorable Chair Luke and Members of the Committee:

SunPower's support SB 2738 SD2 HD1, which amends the Green Energy Market Securitization (GEMS) Program to establish an energy storage system rebate program and allocates \$50 million of the Program's existing \$150 million in Green Infrastructure Bonds to fund the program. Establishing an energy storage system rebate program will directly address the state's immediate need for energy storage technology. SunPower, however, does propose some amendments to the bill that we believe will strengthen the impact of the bill.

SunPower's proposed amendments are attached, but in summary, we propose the following:

1. Amending the bill to allow utility-scale storage systems to be eligible for the proposed rebate program, but including a cap per utility-scale storage system with a rebate at its lowest level of 10 cents/kWh from the beginning to the end of this program, in addition an overall cap on all rebates for utility-scale storage systems with stronger performance criteria over a 20 year period grid supporting performance criteria, (versus 10 years for residential and commercial systems). We estimate that with this proposed amendment, to include a utility-scale storage, 156 MWh of DG storage will be able to be deployed, but it would also allow 200 MWh of utility scale systems to be deployed. Thus allowing close to 100 MWh of more storage to be deployed than would be deployed under the HD1. The incorporation of these amendments will benefit Community Benefit Renewable Energy ("CBRE") ratepayers participating in CBRE projects that are unable to install and benefit from storage rebate program as currently drafted in HD1.
2. Changing "person" in the bill to "energy storage system owner" to provide for leasing options for residents that cannot afford the upfront cost of the storage system even with the rebate.

Reducing the up-front capital cost of energy storage technologies for both distributed and utility-scale projects will ensure all customer classes receive the benefits of these technologies. These

benefits include direct cost-savings for ratepayers, improved distribution system reliability, and reduced curtailment of renewable power generation.

This legislation is key to successfully transforming Hawaii into a reliable, sustainable 100% renewable energy economy. Energy storage is an integral technology available today and is embedded as a key element solution within the Distributed Energy Resources Policies (2014-0192) and Power Supply Improvement Plan (2014-0183) PUC dockets. Establishing appropriate incentives for energy storage technology will ensure Hawaii's renewable energy transformation continues to support local business economics, minimizes impacts to taxpayers, and provides fair cost sharing of ratepayer benefits. This is aligned with SunPower's forward looking initiatives, which are founded in a market framework that enables a grid interconnected solution incorporating a combination of solar power, energy storage and energy intelligence software.

We respectfully request that the Committee amend the bill in accordance with our suggested revisions, which will ensure the program equitably benefits all customer classes. We believe these amendments are in alignment with the intent of the enabling legislation for the GEMS program, which was to "reduce the cost of capital to finance infrastructure installations" and to "make cost-effective green infrastructure options accessible and affordable to customers in an equitable way".

SunPower looks forward to collaborating with the Legislature and other stakeholders on SB 2738 SD2 HD1. Thank you for the opportunity to testify.

Sincerely,



Tom Starrs
Vice President
Market Strategy and Policy

THE SENATE
TWENTY-EIGHTH
LEGISLATURE, 2016
STATE OF HAWAII

S.B. NO.

2738
S.D. 2
H.D. 1

A BILL FOR AN ACT

RELATING TO RENEWABLE ENERGY.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF HAWAII:

SECTION 1. Chapter 196, Hawaii Revised Statutes, is amended by adding a new section to be appropriately designated and to read as follows:

"§196- Energy storage system rebate program. (a) There is established a Hawaii energy storage system rebate program that shall be administered by the department in a manner consistent with this chapter.

The department:

(1) Shall prepare any forms that may be necessary for ~~the~~ energy storage system owner to claim a rebate from the energy storage system fund;

(2) May also require the energy system owner claiming a rebate under this section to furnish reasonable information to ascertain the validity of the claim, including but not limited to, documentation necessary to demonstrate that the system for which the rebate is claimed is an eligible energy storage system;

(3) Shall make best efforts to post on its website, within regular and reasonable periods of time, the current amounts remaining in the energy storage system fund;

Commented [SLL1]: "Person" replaced by "energy storage system owner" in order to ensure the rebate can be utilized by a third party owner of an energy storage system.

(4) Shall adopt, pursuant to chapter 91, any rules necessary to effectuate the purposes of this section. The department's rules shall include rules to allow an energy system owner to secure the applicable level of rebate after the purchase of the system, but prior to the system's installation, so long as the system is installed and placed into service within a reasonable timeframe established by the department; and

(5) May contract with a third party for services to assist with administering the energy storage system rebate program. Such procurement of services shall be exempt from the requirements of chapter 103D.

(b) Each energy system owner that purchases and installs in this State an eligible energy storage system may apply to the department, within twelve months of the eligible energy storage system being first placed into service, to claim a one-time rebate from the energy storage system fund, as follows:

(1) When the funds remaining in the energy storage system fund, excluding funds associated with rebates granted for utility-scale systems, are greater than \$35,000,000, each eligible residential and commercial energy storage system shall receive the lesser of 25 cents per watt-hour of the system's warranted capacity of stored energy or the cap amount determined in subsection (c), if applicable;

(2) When the funds remaining in the energy storage system fund, excluding funds associated with rebates granted for utility-scale systems, are greater than \$20,000,000 but less than or equal to \$35,000,000, each eligible residential and commercial energy storage system shall receive the lesser of 20 cents per watt-hour of the system's warranted capacity of stored energy or the cap amount determined in subsection (c), if applicable;

(3) When the funds remaining in the energy storage system fund, excluding funds associated with rebates granted for utility-scale systems, are less than or equal to \$20,000,000, each eligible energy residential and commercial storage system shall receive the lesser of 15 cents per watt-hour of the system's warranted capacity of stored energy or the cap amount determined in subsection (c), if applicable;

(4) Each eligible utility-scale storage system shall receive the lesser of 10 cents per watt-hour of the system's warranted capacity of stored energy or the cap amount determined in subsection (c), if applicable; and

(4) No more than \$20,000,000 of the energy storage system fund may be expended on utility-scale systems.

(c) The amount of rebate allowed for each eligible energy storage system shall not exceed the applicable cap amount, which shall be:

(1) \$5,000 per system for single-family residential property;

(2) \$100,000 per system for commercial and multi-family residential properties; and

Commented [SLL2]: This is approx. \$2,500-3,000 per system. This is roughly 25% of system cost, which is similar to the current partially refundable state tax credit for PV.

Commented [SLL3]: This will ensure that at least \$30m of the fund will be for DG systems. If \$20m of the fund is expended on utility-scale systems, we estimate that ~200 MWh of utility-scale storage would be deployed. If \$30m of the fund is expended on DG systems, we estimate that ~200 MWh of DG storage would be deployed.

(3) \$1,000,000 per system for utility-scale systems.

(d) This section shall apply to eligible energy storage systems that are installed and first placed in service after December 31, 2016.

(e) Nothing in this section shall alter taxes due on the original purchase price of an eligible energy storage system prior to the application of this rebate. Any rebate received pursuant to the energy storage system rebate program shall not be considered income for the purposes of state or county taxes."

SECTION 2. Chapter 196, Hawaii Revised Statutes, is amended by amending the title of part IV to read as follows:

"[E]PART IV.[F] GREEN INFRASTRUCTURE LOANS AND ENERGY STORAGE SYSTEM REBATE PROGRAM"

SECTION 3. Section 196-61, Hawaii Revised Statutes, is amended by adding six new definitions to be appropriately inserted and to read as follows:

"Eligible energy storage system" means any identifiable facility, equipment, or apparatus that:

- (1) Receives electricity generated from another source or other sources, stores that electricity within a battery and delivers the energy back at a later time to the energy storage system user, an electric utility, or the Hawaii electric system;
- (2) Is fixed to or located on a residential or commercial property and electrically connected to an energy storage system user's load or generation;
- (4) Has a warranted capacity of at least 2.5 kilowatts of continuous battery charge and discharge power and at least five kilowatt-hours of stored energy at time of purchase for residential and commercial systems;
- (5) Has a minimum warranted capacity of 2.5 megawatt hours and 5 megawatt hours at time of purchase for utility-scale systems;
- (6) Is protected by a manufacturer's warranty of at least ten years or a minimum of three thousand cycles for residential and commercial systems;
- (7) Is protected by a manufacturer's warranty of at least twenty years with a degradation not to exceed 1.5 percent per year and controls sufficient to provide real power and reactive power dispatch for utility-scale systems;
- (8) Is not owned by an electric utility; and
- (9) Is connected to an electric utility grid, unless:

Commented [SLL4]: Addition of "located on" to ensure the system does not need to be literally attached to a piece of property.

Commented [SLL5]: Removal of the requirement for the system to directly offset of onsite load ensures utility-scale systems are also eligible for the rebate.

Commented [SLL6]: Removal of the term "usable", insertion of the term "warranted" to ensure that the system will in fact provide the designated amount of capacity.

Commented [SLL7]: These standards ensure maximum value of the systems for grid reliability and reduced likelihood of curtailment of renewables resources.

(A) The electric utility does not offer, at the time of purchase of the energy storage system, electric service to the property that would be served by the energy storage system;

(B) The customer-generator applied for interconnection with the electric utility but has not received interconnection approval from the electric utility within forty-five days of the electric utility receiving the application for interconnection that has not been denied for lack of completeness; or

(C) The electric utility has proposed interconnection fees of ten per cent or greater of the purchase price of the energy storage system.

"Energy storage system fund" means the moneys from the Hawaii green infrastructure special fund authorized by this part for the purpose of providing rebates for eligible energy storage systems through the energy storage system rebate program.

"Energy storage system rebate program" means the program established by section 196- to fund rebates for eligible energy storage systems from the energy storage system fund.

"Energy storage system user" means the property owner, or the property owner's lessees or tenants, that use the energy discharged by the eligible energy storage system on the property where the eligible energy storage system is located or on contiguous property owned or leased by the property owner without regard to interruptions in contiguity caused by easements, public thoroughfares, transportation rights-of-way, and utility rights-of-way.

"First placed in service" has the same meaning as title 26 Code of Federal Regulations sections 1.167(a)-11(e)(1).

SECTION 3. Section 196-64, Hawaii Revised Statutes, is amended to read as follows:

"[H]§196-64[.] Functions, powers, and duties of the authority. (a) In the performance of, and with respect to the functions, powers, and duties vested in the authority by this part, the authority, as directed by the director and in accordance with a green infrastructure loan program order or orders under section 269-171 or an annual plan submitted by the authority pursuant to this section, as approved by the public utilities commission may:

(1) Make loans and expend funds to finance the purchase or installation of green infrastructure equipment for clean energy technology, demand response technology, and energy use reduction and demand side management infrastructure, programs, and services;

(2) Hold and invest moneys in the green infrastructure special fund in investments as permitted by law and in accordance with approved investment guidelines established in one or more orders issued by the public utilities commission pursuant to section 269-171;

(3) Hire employees necessary to perform its duties, including an executive director. The executive director shall be appointed by the authority, and the employees' positions, including the executive director's position, shall be exempt from chapter 76;

(4) Enter into contracts for the service of consultants for rendering professional and technical assistance and advice, and any other contracts that are necessary and proper for the implementation of the loan program;

(5) Enter into contracts for the administration of the loan program, without the necessity of complying with chapter 103D;

(6) Establish loan program guidelines to be approved in one or more orders issued by the public utilities commission pursuant to section 269-171 to carry out the purposes of this part;

(7) Be audited at least annually by a firm of independent certified public accountants selected by the authority, and provide the results of this audit to the department and the public utilities commission; and

(8) Perform all functions necessary to effectuate the purposes of this part.

(b) The authority shall submit to the public utilities commission an annual plan for review and approval no later than ninety days prior to the start of each fiscal year. The annual plan submitted by the authority shall include the authority's projected operational budget for the succeeding fiscal year.

(c) Notwithstanding subsections (a) and (b), the authority shall make available from the Hawaii green infrastructure special fund the amount designated in section 196-65(c) for the energy storage system rebate program."

SECTION 4. Section 196-65, Hawaii Revised Statutes, is amended to read as follows:

"~~§~~**196-65** **Hawaii green infrastructure special fund.** (a) There is established the Hawaii green infrastructure special fund into which shall be deposited:

(1) The proceeds of bonds net of issuance costs and reserves or overcollateralization amounts;

(2) Green infrastructure charges received for the use and services of the loan program, including the repayment of loans made under the loan program;

(3) All other funds received by the department or the authority and legally available for the purposes of the green infrastructure special fund;

(4) Interest earnings on all amounts in the green infrastructure special fund; and

(5) Such other moneys as shall be permitted by an order of the public utilities commission.

The Hawaii green infrastructure special fund shall not be subject to section 37-53. Any amounts received from green infrastructure charges or any other net proceeds earned from the allocation, use, expenditure, or other disposition of amounts approved by the public utilities

commission and deposited or held in the Hawaii green infrastructure special fund in excess of amounts necessary for the purposes of ~~subsection~~ subsections (b) and (c) shall be credited to electric utility customers as provided in a green infrastructure loan program order or orders. Funds that are transferred back to the electric utility in order to credit electric utility customers under this subsection shall not be considered revenue of the electric utility and shall not be subject to state or county taxes.

(b) Moneys in the Hawaii green infrastructure special fund may be used, subject to the approval of the public utilities commission, for the purposes of:

- (1) Making green infrastructure loans;
- (2) Paying administrative costs of the Hawaii green infrastructure loan program;
- (3) Paying any other costs related to the Hawaii green infrastructure loan program; or
- (4) Paying financing costs, as defined in section 269-161, to the extent permitted by the public utilities commission in a financing order issued pursuant to section 269-163.

(c) \$50,000,000 from the Hawaii green infrastructure special fund shall be transferred on a one-time, lump-sum basis to create the energy storage system fund, which shall provide moneys for the energy storage system rebate program. The energy storage system fund shall be used only for the purposes of:

- (1) Making energy storage system rebate program payments pursuant to section 196- ; and
- (2) Paying the department's administrative costs for operating the energy storage system rebate program.

~~[(e)]~~ (d) The authority may invest funds held in the Hawaii green infrastructure special fund in investments as permitted by law, and in accordance with approved investment guidelines established in one or more orders issued by the public utilities commission pursuant to section 269-171. All amounts in the Hawaii green infrastructure special fund shall be exempt from all taxes and surcharges imposed by the State or the counties."

SECTION 6. Section 269-170, Hawaii Revised Statutes, is amended by amending subsection (a) to read as follows:

"(a) The authority shall submit an application to the public utilities commission for the use or other disposition of amounts deposited or held in the green infrastructure special fund pursuant to section 196-65 prior to the allocation, use, expenditure, or other disposition of any such amounts; provided that this subsection shall not apply to the following:

(1) The expenditure of amounts deposited or held in the green infrastructure special fund that have been reviewed and approved by the public utilities commission for operational or administrative expenses of the authority pursuant to section 196-64[-]; and

(2) The expenditure of amounts deposited or held in the Hawaii green infrastructure special fund for the purpose of funding the energy storage system fund, pursuant to section 196-65(c)."

SECTION 7. (a) The legislature finds and declares that the issuance of rebates under this Act is in the public interest and for the public health, safety, and welfare.

(b) The department of business, economic development, and tourism, and the green infrastructure authority embedded within the department, shall use \$50,000,000 from the Hawaii green infrastructure special as specified in section 196-65(c), Hawaii Revised Statutes, to fund

the energy storage system fund that is created by this Act, and develop any forms and rules necessary for the implementation of the program, no later than December 31, 2016.

(c) To the extent there is any conflict between this Act and part III of chapter 39, Hawaii Revised Statutes, this Act shall prevail.

SECTION 8. There is appropriated out of the Hawaii green infrastructure special fund established pursuant to section 196-65, Hawaii Revised Statutes, the sum of \$50,000,000, or so much thereof as may be necessary for fiscal year 2016-2017 to be deposited into the energy storage system fund.

SECTION 9. There is appropriated out of the energy storage system fund the sum of \$50,000,000 or so much thereof as may be necessary for fiscal year 2016-2017 for the energy storage system rebate program.

The sum appropriated shall be expended by the department of business, economic development, and tourism for the purposes of this Act.

SECTION 10. If any provision of this Act, or the application thereof to any person or circumstance, is held invalid, the invalidity does not affect other provisions or applications of the Act that can be given effect without the invalid provision or application, and to this end the provisions of this Act are severable.

SECTION 11. This Act does not affect rights and duties that matured, penalties that were incurred, and proceedings that were begun before its effective date.

SECTION 12. Statutory material to be repealed is bracketed and stricken. New statutory material is underscored.

SECTION 13. This Act shall take effect upon its approval.



Before the House Committee on Finance
Date: April 4, 2016
SB 2738 SD 2 HD 1: Relating to Renewable Energy

Aloha Chair Luke, Vice Chair Nishimoto, and members of the Committee,

On behalf of Stem, Inc. (Stem), I would like to testify in general support of the intent of SB 2738 SD 2 HD 1. This bill would create an incentive program to help qualified customers bring down the upfront costs of installing advanced energy storage systems.

Stem is a leading provider of innovative energy solutions that combine powerful learning software with advanced energy storage. Stem is currently partnered with Hawaiian Electric Company ("HECO") on a 1MW renewables integration pilot to help the utility reach the State's renewable energy goals. Stem is also working with the Hawaiian Electric Companies on a data transparency/data availability project for all of the public schools in the Tri-Companies' service territories.

Stem has supported this bill since its inception, and we continue to believe that the Senate version of this bill (SB 2738 SD 2) provides the better structure for an energy storage incentive. That version sought to create a revenue-positive means for the State of Hawaii to ramp down the solar tax credit while allowing a smooth transition for the solar industry to install distributed, grid-connected energy storage systems. In a conservative view of the impact to the State from that ramp-down, Stem estimates the previously structured bill will save the State of Hawaii \$18-20 million over 5 years. Additionally, the bill would support the development and growth a local energy storage industry and will put private capital to work to upgrade the existing electricity grid.

Stem respectfully requests that you support SB 2738 SD 2 HB 1 so that this important legislation can go to conference. Due to the fact that the Senate version offers a different structure, legislators in conference can ensure that the final framework for this incentive is revenue neutral-to-positive and that it will indeed save the state money, as was its original structured intent.

Thank you for the opportunity to testify.

Respectfully,

A handwritten signature in black ink that reads "Tad Glauthier". The signature is stylized and cursive.

Tad Glauthier
Vice President of Hawaii Operations
Stem, Inc.
tad.glauthier@stem.com



From: Grant Udagawa <gusolarpv@ymail.com>
Sent: Monday, April 04, 2016 9:49 AM
To: FINTestimony
Subject: Testimony in Support of SB 2738 SD2 HD1

HOUSE COMMITTEE ON FINANCE

Tuesday, April 5, 2:31 P.M.

Testimony in Support of SB 2738 SD2 HD1

Chair Luke and members of the Committee:

I strongly support SB 2738 SD2 HD1, creating a smart rebate program that kickstarts the deployment of energy storage and helps the "little guy" be a part of Hawaii's clean energy future. This measure is a critical step in securing Hawaii's energy future, reducing our contribution to global climate change, and reducing the cost of living in Hawaii. Much like existing rebates for CFLs, LEDs, and solar water heaters, this measure is a common-sense policy that has the long-term interests of Hawaii residents in mind.

Grant Udagawa
Solar Help Hawaii LLC
[1846 Lusitana St. Honolulu, Hawaii 96813](#)
Office: [808-548-4357](tel:808-548-4357) | Cell: [808-233-9958](tel:808-233-9958) | Fax: [808-537-4341](tel:808-537-4341)
gusolarpv@ymail.com

From: Grant Udagawa <grant.u@chargebliss.com>
Sent: Monday, April 04, 2016 9:53 AM
To: FINTestimony
Subject: Testimony in Support of SB 2738 SD2 HD1

Aloha,

Please pass SB 2738, for not only the family and workers that have been affected by the doing away of nem but also for the future of clean energy for Hawaii.

We are so unique in our potential for renewables. Let's make that step towards a more sustainable future for our home and keiki.

Warm regards,

HOUSE COMMITTEE ON FINANCE
Tuesday, April 5, 2:31 P.M.
Testimony in Support of SB 2738 SD2 HD1

Chair Luke and members of the Committee:

I strongly support SB 2738 SD2 HD1, creating a smart rebate program that kickstarts the deployment of energy storage and helps the "little guy" be a part of Hawaii's clean energy future. This measure is a critical step in securing Hawaii's energy future, reducing our contribution to global climate change, and reducing the cost of living in Hawaii. Much like existing rebates for CFLs, LEDs, and solar water heaters, this measure is a common-sense policy that has the long-term interests of Hawaii residents in mind.

Grant Udagawa
Energy management specialist
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From: mailinglist@capitol.hawaii.gov
Sent: Sunday, April 03, 2016 11:18 AM
To: FINTestimony
Cc: wao-hsl@WeAreOne.cc
Subject: *Submitted testimony for SB2738 on Apr 5, 2016 14:31PM*

SB2738

Submitted on: 4/3/2016

Testimony for FIN on Apr 5, 2016 14:31PM in Conference Room 308

Submitted By	Organization	Testifier Position	Present at Hearing
Joseph Kohn MD	We Are One, Inc. - www.WeAreOne.cc - WAO	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.

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Testimony of Hermina Morita
Senate Bill 2738, Senate Draft 2, House Draft 1, Relating to Renewable Energy
House Committee on Finance

Aloha Chair Luke, Vice-Chair Nishimoto and Members of the Committee:

I would like to offer my testimony for your consideration in opposition to Senate Bill 2738, Senate Draft 2, House Draft 1, Relating to Renewable Energy which establishes an energy storage rebate utilizing funds from the Hawaii Green Infrastructure Loan Program (HGILP). The primary purpose of the program was to provide low-cost capital to finance solar photovoltaic systems and other clean energy improvements for those who may otherwise have difficulty obtaining financing for these projects. The HGILP was envisioned as a self-sustaining loan program which could eventually replace the existing renewable energy income tax credit (REITC) and other cash incentives from the public benefit fee when these projects demonstrate electricity savings to reduce a customer's electricity bill, moving more towards a market based approach rather than relying on tax credits or electricity ratepayer fees to incentivize installation.

The House Draft 1 has the consequence of providing unwarranted subsidies to people who have already installed rooftop solar systems and have benefited from the net-energy meter tariff and the REITC which resulted in the return on investment being exceedingly generous. I do not believe it is the intent of the legislature to continue to give subsidies to the same individuals and businesses who have already been subsidized and will continue to benefit for the life of these systems. The HGILP proceeds should be made available to these individuals and businesses as a loan, not a rebate.

Although I agree with the concept of a ramp-down and the sunset of the REITC, energy storage should be a part of a total system package when installing a new renewable energy system not a separate tax credit. And, again, I caution against an energy storage credit for existing systems that have already utilized the REITC and have the additional advantage of net-energy metering.

The total lost contribution to fixed cost for the HECO Companies has increased from an estimated \$19 million based on installed NEM capacity at the end of 2012, to \$38 million at the end of 2013, to \$53 million at the end of 2014 to an annualized \$63 million at the end of 2015. **This is the estimated annual cost-shift to the non-PV ratepayer.** For the tax year 2012 alone, the renewable energy income tax credit accounted for 48.41% (total \$179,018,000) of all state tax credits (\$369,811,000) claimed. Currently, the information for tax year 2013 is not publicly available but PV installation growth indicates nothing different, ditto for tax year 2014 and I suspect the same trend for tax year 2015. As you all know, this has a significant impact on all programs that receive their funding from the State's General Fund.

I find it totally ironic that as we all lament about the high cost of electricity, the political trajectory - No LNG, pro-NEM, pro-REITC - continually sticks it to the electricity customer/taxpayer who cannot afford or do not have access to renewable and energy efficiency solutions to dramatically lower their electricity bills and must rely on the electric utility to lower its fuel and operational costs to result in lower bills. These customers tend to be renters and lower income households - families living paycheck to paycheck.

Thank you for the opportunity to testify.

From: mailinglist@capitol.hawaii.gov
Sent: Sunday, April 03, 2016 3:33 PM
To: FINTestimony
Cc: panther_dave@yahoo.com
Subject: Submitted testimony for SB2738 on Apr 5, 2016 14:31PM

SB2738

Submitted on: 4/3/2016

Testimony for FIN on Apr 5, 2016 14:31PM in Conference Room 308

Submitted By	Organization	Testifier Position	Present at Hearing
Dave Kisor	Individual	Support	No

Comments: Eventually all electrical utilities will be obsolete and they know it, but are unwilling to accept it and be the generation of change. The industries that fuel the utilities will also scream like wounded babies, but that's just tough toenails! SB2738 is a marginally adequate proposition, but I suppose it is better than nothing.

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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From: mailinglist@capitol.hawaii.gov
Sent: Sunday, April 03, 2016 10:32 AM
To: FINTestimony
Cc: begoniabarry@gmail.com
Subject: Submitted testimony for SB2738 on Apr 5, 2016 14:31PM

SB2738

Submitted on: 4/3/2016

Testimony for FIN on Apr 5, 2016 14:31PM in Conference Room 308

Submitted By	Organization	Testifier Position	Present at Hearing
Barbara Barry	Individual	Support	No

Comments: Aloha Committee Chair and Members, I strongly support this bill, Mahalo, Ms. Barbara Barry

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

From: mailinglist@capitol.hawaii.gov
Sent: Sunday, April 03, 2016 8:23 AM
To: FINTestimony
Cc: katc31999@gmail.com
Subject: *Submitted testimony for SB2738 on Apr 5, 2016 14:31PM*

SB2738

Submitted on: 4/3/2016

Testimony for FIN on Apr 5, 2016 14:31PM in Conference Room 308

Submitted By	Organization	Testifier Position	Present at Hearing
Katarina Culina	Individual	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

From: Helga Costello <helga.costello@gmail.com>
Sent: Monday, April 04, 2016 8:45 AM
To: FINTestimony
Subject: Testimony in Support of SB 2738 SD2 HD1

HOUSE COMMITTEE ON FINANCE
Tuesday, April 5, 2:31 P.M.
Testimony in Support of SB 2738 SD2 HD1

Chair Luke and members of the Committee:

I strongly support SB 2738 SD2 HD1, creating a smart rebate program that kickstarts the deployment of energy storage and helps the "little guy" be a part of Hawaii's clean energy future. This measure is a critical step in securing Hawaii's energy future, reducing our contribution to global climate change, and reducing the cost of living in Hawaii. Much like existing rebates for CFLs, LEDs, and solar water heaters, this measure is a common-sense policy that has the long-term interests of Hawaii residents in mind.

I urge you to take a look at the state of Israel for instance, or Spain: in comparison to their solar development Hawai'i is still living in The Dark Ages. Don't keep us there with some outdated laws. Thank you.

Helga Costello
HC 2 Box 5677
Kea'au, Hawai'i 96749

From: Jennifer Azuma <jenazuma@gmail.com>
Sent: Monday, April 04, 2016 6:38 AM
To: FINTestimony
Subject: Testimony in Support of SB 2738 SD2 HD1

HOUSE COMMITTEE ON FINANCE
Tuesday, April 5, 2:31 P.M.
Testimony in Support of SB 2738 SD2 HD1

Chair Luke and members of the Committee:

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I do NOT support entities such as NextError (NextEra) or any other windfarm agencies. There's NOTHING WRONG with sunlight in Hawaii and having our Kingdom's Electric Company backing that up. I'm not concerned with what corporate dollars you can pocket from those hidden agendas that your illegal state and the CORPORATION OF USA can bank roll from such desecrating actions. I AM however concerned with the future of sustainability for not only my own descendants, but yours as well, because your dirty corporate dollar will not be able to feed your grandchildren when all food sources are destroyed for money.

Malama Pono,
Jen Azuma

From: Anne Pontius <note2anne@gmail.com>
Sent: Sunday, April 03, 2016 10:17 PM
To: FINTestimony
Subject: Testimony in Support of SB 2738 SD2 HD1

HOUSE COMMITTEE ON FINANCE
Tuesday, April 5, 2:31 P.M.
Testimony in Support of SB 2738 SD2 HD1

Chair Luke and members of the Committee:

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Thank you for representing your constituents and working toward a green and sustainable future for our children's children
Sincerely,

Anne Pontius
P.O. Box 254
Kapaau, HI
96755

From: Noel Moniz <elmo808@gmail.com>
Sent: Sunday, April 03, 2016 8:28 PM
To: FINTestimony
Subject: Testimony in Support of SB 2738 SD2 HD1

HOUSE COMMITTEE ON FINANCE

Tuesday, April 5, 2:31 P.M.

Testimony in Support of SB 2738 SD2 HD1

Chair Luke and members of the Committee:

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We are an island. We need to continue to lead the nation in solar and use solar and other options to enable the people to make their own choices towards energy.

thank you,
Noel Moniz

From: Master John Sawaguchi <urf808@icloud.com>
Sent: Sunday, April 03, 2016 8:26 PM
To: FINTestimony
Subject: Testimony in Support of SB 2738 SD2 HD1

HOUSE COMMITTEE ON FINANCE
Tuesday, April 5, 2:31 P.M.
Testimony in Support of SB 2738 SD2 HD1

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Much Regards,

J. Sawaguchi
Resident Honolulu, Hawaii

Aloha

From: john.maurer@gmail.com on behalf of John Maurer <john.from.stl@alumni.stanford.edu>
Sent: Sunday, April 03, 2016 7:58 PM
To: FINTestimony
Subject: Testimony in Support of SB 2738 SD2 HD1

HOUSE COMMITTEE ON FINANCE
Tuesday, April 5, 2:31 P.M.
Testimony in Support of SB 2738 SD2 HD1

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Aloha,
John Maurer
3029 Lowrey Ave
Apt O-2105
Honolulu, HI 96822

From: Gazar Ama Eliten <panco43@gmail.com>
Sent: Sunday, April 03, 2016 7:49 PM
To: FINTestimony
Subject: Testimony in Support of SB 2738 SD2 HD1

HOUSE COMMITTEE ON FINANCE
Tuesday, April 5, 2:31 P.M.
Testimony in Support of SB 2738 SD2 HD1

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<PERSONAL COMMENTS>

<YOUR NAME AND ADDRESS>

From: denise colgrove <nomadathart@yahoo.com>
Sent: Sunday, April 03, 2016 5:34 PM
To: FINTestimony
Subject: Testimony in Support of SB 2738 SD2 HD1

HOUSE COMMITTEE ON FINANCE
Tuesday, April 5, 2:31 P.M.
Testimony in Support of SB 2738 SD2 HD1

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Eliminating net energy metering has been a blow to solar industry and to people buying solar installations for their homes. We need clean energy and the climate benefits of not burning oil etc. Have you noticed how hot it is getting? We have to do everything to reduce carbon emissions and this bill plays its part in that.

Sincerely,

Denise Colgrove,

12 Machida Lane,
Hilo, Hawaii, 96720.
8088955561.

Sent from my iPad

From: sam monet <monets001@hawaii.rr.com>
Sent: Sunday, April 03, 2016 4:26 PM
To: FINTestimony
Subject: Testimony in Support of SB 2738 SD2 HD1

HOUSE COMMITTEE ON FINANCE
Tuesday, April 5, 2:31 P.M.
Testimony in Support of SB 2738 SD2 HD1

Chair Luke and members of the Committee:

As you know, PUC Rule 14 and HEI have **eliminated the Net Metering provisions** whereby rooftop solar surplus is stored on the HECO grid at the same rate that it is sold.

Despite the public outcry by solar installers, I believe that eliminating NEM is a good idea because NEM encouraged and supported a very dangerous situation on the grid where renewable inputs created over and under voltage along with dangerous spikes in the utility system. In addition, NEM was not fair to all ratepayers.

Battery storage provisions in rule 14 encourage rooftop solar and independent power producers (IPP) to smooth their renewable inputs to the grid by installing battery storage (BESS) or Distributed Energy Resources (DER). In the long term, these systems will provide the power and support systems for Hawaii's grids to comply with ACT 234, Global Warming Solution Act.

To encourage Hawaii ratepayers to install rooftop solar and residential battery storage systems (RESS) that will provide smooth excess energy to the grid and also provide ratepayers with emergency power in the event of a natural or other disaster, **State TAX CREDITS will provide the incentives**. These incentives will also drive the solar industry. For government, HEI, ratepayers and solar industry this is a win, win, win, win situation.

In addition, NEM puts the burden of incentives on ratepayers, punishing those how do not have solar. State tax credits put the burden on ALL tax payers who along with their family, business and friends use and enjoy the benefits (environmental and fiscal) of renewable inputs. It fairly spreads the cost of incentives to all who use the energy.

I suggest tax credits and rebates of 35% on new or existing PV and battery installation or upgrades and 40% on new systems that include both PV and battery storage, no matter the size. Even 40% and 45% for both PV and battery storage. The more the better. It is the capital cost that holds battery storage down.

The credits would be transferable, so the customer can sell the credits that might be marketed in a pool or used to offset capital cost by trading the credits with the PV and battery installer.

I realize that the old system was abused, however we are beyond that now and can assure that the new system will have safeguards in place to discourage abuse. Hawaii can lead the way for America to get up to speed. Our grid is old and not very efficient. We cannot replace it, we can protect it from abuse. NEM is really hard on the existing GRID equipment.

Sam Monet, Managing Partner
1741 Ala Moana Blvd. Suite 98
Honolulu, Hawaii 96815
Ph: 808-258-1611
plugandplayenergysystems.com

<PERSONAL COMMENTS>

<YOUR NAME AND ADDRESS>

From: Sheryl Samuel <haysamsongs@gmail.com>
Sent: Sunday, April 03, 2016 3:05 PM
To: FINTestimony
Subject: Testimony in Support of SB 2738 SD2 HD1

HOUSE COMMITTEE ON FINANCE
Tuesday, April 5, 2:31 P.M.
Testimony in Support of SB 2738 SD2 HD1

Chair Luke and members of the Committee:

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As a homeowner on the Big Island, with full solar hot water and photo-voltaic net-metering, I would like this option to be available to all of my friends and neighbors.

Mahalo,
Sheryl Samuel
Honoka'a, HI 96727-7100

From: Bill or Bobbie Best <bestb002@hawaii.rr.com>
Sent: Sunday, April 03, 2016 2:26 PM
To: FINTestimony
Subject: Testimony in Support of SB 2738 SD2 HD1

HOUSE COMMITTEE ON FINANCE

Tuesday, April 5, 2:31 P.M.

Testimony in Support of SB 2738 SD2 HD1

Chair Luke and members of the Committee:

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Mahalo,
Bobbie and Bill Best
280 Hauoli St.
Wailuku, HI 96793
p. 242-9119

From: Clyde Puana <epuana@hawaii.rr.com>
Sent: Sunday, April 03, 2016 1:51 PM
To: FINTestimony
Subject: Testimony in Support of SB 2738 SD2 HD1

HOUSE COMMITTEE ON FINANCE
Tuesday, April 5, 2:31 P.M.
Testimony in Support of SB 2738 SD2 HD1

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E. Clyde Puana
15-1593 - Mikana St.
Keaau, HI. 96749

From: Madeleine Soder <msoder@hawaii.edu>
Sent: Sunday, April 03, 2016 11:49 AM
To: FINTestimony
Subject: Testimony in Support of SB 2738 SD2 HD1

HOUSE COMMITTEE ON FINANCE

Tuesday, April 5, 2:31 P.M.

Testimony in Support of SB 2738 SD2 HD1

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Thank you for your time.

Aloha,

Madeleine Soder
2188 Hello place
Honolulu, HI 96816

From: Rick Davis <ourdoc1@gmail.com>
Sent: Sunday, April 03, 2016 11:10 AM
To: FINTestimony
Subject: Testimony in Support of SB 2738 SD2 HD1

HOUSE COMMITTEE ON FINANCE
Tuesday, April 5, 2:31 P.M.
Testimony in Support of SB 2738 SD2 HD1

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During our last Hurricane, even though I had full solar only house, I had ZERO electricity. Why, because of the way it is now setup with HELCO. This is WRONG and needs to be changed. They already receive my excess power at lower rates than I get, why am I STILL getting stolen from? Sign the legislation and help your constituents.

Dr. R. Davis, PhD
Keaau, HI.

From: Jane LaVoie <holymolikakini@gmail.com>
Sent: Sunday, April 03, 2016 10:56 AM
To: FINTestimony
Subject: Testimony in Support of SB 2738 SD2 HD1

HOUSE COMMITTEE ON FINANCE
Tuesday, April 5, 2:31 P.M.
Testimony in Support of SB 2738 SD2 HD1

Chair Luke and members of the Committee:

I AM THE LAST PERSON ON MOLOKA'I WHO WAS "ALLOWED TO HOOK UP TO THE GRID". WHY? BECAUSE I SAW TROUBLE COMING WHILE READING ABOUT MECO'S MERGE WITH AN "ANTI-SOLAR" CORPORATION FROM FLORIDA. I IMMEDIATELY APPLIED FOR SOLAR WITH MECO AND WAS GRANTED PERMISSION BECAUSE I APPLIED PRIOR TO MECO GOING SIDEWAYS WITH THE CORUPT COMPANY.

WAKE UP HAWAII.....GET YOUR HEADS OUT OF THE DARK AGES!!!!!!

I strongly support SB 2738 SD2 HD1, creating a smart rebate program that kickstarts the deployment of energy storage and helps the "little guy" be a part of Hawaii's clean energy future. This measure is a critical step in securing Hawaii's energy future, reducing our contribution to global climate change, and reducing the cost of living in Hawaii. Much like existing rebates for CFLs, LEDs, and solar water heaters, this measure is a common-sense policy that has the long-term interests of Hawaii residents in mind.

Mahalo
Jane

Sent from my iPad

From: Drew Jackson <drew.m.pinkney@gmail.com>
Sent: Sunday, April 03, 2016 9:57 AM
To: FINTestimony
Subject: Testimony in Support of SB 2738 SD2 HD1

HOUSE COMMITTEE ON FINANCE

Tuesday, April 5, 2:31 P.M.

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From: Laurie Kahiapo <gopono@gmail.com>
Sent: Sunday, April 03, 2016 9:54 AM
To: FINTestimony
Subject: Testimony in Support of SB 2738 SD2 HD1

HOUSE COMMITTEE ON FINANCE
Tuesday, April 5, 2:31 P.M.
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Sent from my iPhone

From: Steve Sparks <asinsparks@gmail.com>
Sent: Sunday, April 03, 2016 9:52 AM
To: FINTestimony
Subject: Testimony in Support of SB 2738 SD2 HD1

Please support SB 2738! Solar means jobs and the smart rebate program will help us reach energy independence.

HOUSE COMMITTEE ON FINANCE
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<PERSONAL COMMENTS>

<YOUR NAME AND ADDRESS>

--
Steve Sparks
Business Manager
Mg Products, LLC
13-1255 Malama St.
Pahoa, HI 96778
808-965-7061

From: Steve Groves <sgroves0112@gmail.com>
Sent: Sunday, April 03, 2016 9:28 AM
To: FINTestimony
Subject: Testimony in Support of SB 2738 SD2 HD1

HOUSE COMMITTEE ON FINANCE

Tuesday, April 5, 2:31 P.M.

Testimony in Support of SB 2738 SD2 HD1

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Sent from my iPad

From: Kelly Finn <fkelly99@hotmail.com>
Sent: Sunday, April 03, 2016 9:28 AM
To: FINTestimony
Subject: Testimony in Support of SB 2738 SD2 HD1

HOUSE COMMITTEE ON FINANCE

Tuesday, April 5, 2:31 P.M.

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This is one step to make solar viable here in Hawaii. Any associated "fees" to HECO or HELCO should be equitably charged and currently they are not. On Hawaii island, East -side, HELCO now charges any new grid-tied solar customer located in the lower Puna district a one-time fee of \$800 per KW + taxes for "protective layering". This is a substantial enough mystery 'fee' to prohibit most folks here from adding solar. This fee is also not charged to people in other areas and is therefore discriminating against Puna residents. Please look into this and eliminate this unjustified, inequitable fee.

Kelly Finn
Pahoa, HI

From: afogwhite@yahoo.com
Sent: Sunday, April 03, 2016 9:26 AM
To: FINTestimony
Subject: Testimony in Support of SB 2738 SD2 HD1

HOUSE COMMITTEE ON FINANCE
Tuesday, April 5, 2:31 P.M.
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We are very much in favor of on site personal storage of energy which takes the energy out of the hands of "for profit" energy companies and into the hands of the user. All solar energy comes from the sun which should belong to everyone.
Donna White afogwhite@yahoo.com

Sent from my iPhone

From: LauraG <Laurag@divefish.com>
Sent: Sunday, April 03, 2016 9:01 AM
To: FINTestimony
Subject: Testimony in Support of SB 2738 SD2 HD1

HOUSE COMMITTEE ON FINANCE

Tuesday, April 5, 2:31 P.M.

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I have solar and it powers not only my house, but also my car. Even after all this, I have leftover power that is stolen from me by HECO at the end of the year. I would have put lots more pannels on my roof if I could have made use of this extra power in some way. We need to make it attractive to homeowners to produce clean power, not discourage them from investing in it . We also need a publically owned utility , which I would love to buy bonds to pay for. It would also be great to store my own power, sell back the leftovers and pay for the system alot sooner. Lets make our government work for the people on this. Another issue is that there are alot of areas on the other islands that simply do not have grid power, and it would be cheaper to provide storage than to run poles and wire to them.

Sincerly,
Larura Gray

POB 536 Hauula, Hi 96717

From: Cody Jackson <sponsorw@gmail.com>
Sent: Sunday, April 03, 2016 8:43 AM
To: FINTestimony
Subject: Testimony in Support of SB 2738 SD2 HD1

HOUSE COMMITTEE ON FINANCE
Tuesday, April 5, 2:31 P.M.
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Thank you!!

Cody Jackson

Sent from my iPhone

From: Kimberly <kimknp07@gmail.com>
Sent: Sunday, April 03, 2016 8:15 AM
To: FINTestimony
Subject: Testimony in Support of SB 2738 SD2 HD1

HOUSE COMMITTEE ON FINANCE
Tuesday, April 5, 2:31 P.M.
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Thank You,
Kimberly Kaumeheiwa MSN, FNP-C
Ewa Beach, HI 96706

Sent from my iPhone

From: Robert Van Wagoner <bob@mauigems.com>
Sent: Sunday, April 03, 2016 8:32 AM
To: FINTestimony
Subject: Testimony in Support of SB 2738 SD2 HD1

HOUSE COMMITTEE ON FINANCE
Tuesday, April 5, 2:31 P.M.
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Robert Van Wagoner
Beija Flor Wholesale
PO Box 837
Haiku, HI 96708
(808) 573 4845
bob@mauigems.com

From: Joyce Robertson <joycerobertson@mac.com>
Sent: Sunday, April 03, 2016 8:10 AM
To: FINTestimony
Subject: Testimony in Support of SB 2738 SD2 HD1

HOUSE COMMITTEE ON FINANCE
Tuesday, April 5, 2:31 P.M.
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As a senior on a fixed income who wants to switch to solar but doesn't have the income, wants to see the jobs return to Hawaii island, and protect our planet, please support SB 2738 SD2 HD1.

Joyce Robertson
67-1305 Laikealoha Street
Kamuela, HI 96743

Sent from my iPad

From: Titus <dnachef@yahoo.com>
Sent: Sunday, April 03, 2016 7:55 AM
To: FINTestimony
Subject: Testimony in Support of SB 2738 SD2 HD1

HOUSE COMMITTEE ON FINANCE
Tuesday, April 5, 2:31 P.M.
Testimony in Support of SB 2738 SD2 HD1

Chair Luke and members of the Committee:

I strongly support SB 2738 SD2 HD1, creating a smart rebate program that kickstarts the deployment of energy storage and helps the "little guy" be a part of Hawaii's clean energy future. This measure is a critical step in securing Hawaii's energy future, reducing our contribution to global climate change, and reducing the cost of living in Hawaii. Much like existing rebates for CFLs, LEDs, and solar water heaters, this measure is a common-sense policy that has the long-term interests of Hawaii residents in mind.

Sincerely,
Titus Tan

From: Phil2 <phil02@hawaiiantel.net>
Sent: Sunday, April 03, 2016 7:54 AM
To: FINTestimony
Subject: Testimony in Support of SB 2738 SD2 HD1

HOUSE COMMITTEE ON FINANCE
Tuesday, April 5, 2:31 P.M.
Testimony in Support of SB 2738 SD2 HD1

Chair Luke and members of the Committee:

My wife and I are planning a new home on Hawaii Island. We are frustrated by the end of net metering, and fearful of the prospect that Nextera might take over and further strangle green energy sources and opportunities for home owning citizens.

I strongly support SB 2738 SD2 HD1, creating a smart rebate program that kickstarts the deployment of energy storage and helps the "little guy" be a part of Hawaii's clean energy future. This measure is a critical step in securing Hawaii's energy future, reducing our contribution to global climate change, and reducing the cost of living in Hawaii. Much like existing rebates for CFLs, LEDs, and solar water heaters, this measure is a common-sense policy that has the long-term interests of Hawaii residents in mind.

Phil Haisley
4905 Mana Place
Honolulu, Hawaii. 96816

From: Mark Morphey <morpheymark@gmail.com>
Sent: Sunday, April 03, 2016 7:39 AM
To: FINTestimony
Subject: Testimony in Support of SB 2738 SD2 HD1

HOUSE COMMITTEE ON FINANCE
Tuesday, April 5, 2:31 P.M.
Testimony in Support of SB 2738 SD2 HD1

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Mahalo,
Mark Morphey
808-640-0229

Sent from my iPhone with Kokua

From: Gwyn <gtoilolo@gmail.com>
Sent: Sunday, April 03, 2016 7:23 AM
To: FINTestimony
Subject: Testimony in Support of SB 2738 SD2 HD1

HOUSE COMMITTEE ON FINANCE
Tuesday, April 5, 2:31 P.M.
Testimony in Support of SB 2738 SD2 HD1

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Mahalo,
Edwin and Gwyn Toilolo

Sent from my iPhone

From: virginiparish <virginiparish@yahoo.com>
Sent: Sunday, April 03, 2016 7:18 AM
To: FINTestimony
Subject: Testimony in Support of SB 2738 SD2 HD1

HOUSE COMMITTEE ON FINANCE
Tuesday, April 5, 2:31 P.M.
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I managed to install panels and it's one of the best investments I have decided to do. The rebate program was a major role in my decision. I support a rebate for energy storage also. It's very important to continue to reducing towards global climate change.

Thank you,
Virginia Parish
PO Box 2720
Ewa Beach, Hawaii

Sent from my T-Mobile 4G LTE Device

From: Bart Burford <vinylavenger001@gmail.com>
Sent: Sunday, April 03, 2016 6:49 AM
To: FINTestimony
Subject: Testimony in Support of SB 2738 SD2 HD1

HOUSE COMMITTEE ON FINANCE
Tuesday, April 5, 2:31 P.M.
Testimony in Support of SB 2738 SD2 HD1

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Sent from my iPhone

From: Michael Kelly <alohakelly24@gmail.com>
Sent: Sunday, April 03, 2016 6:37 AM
To: FINTestimony
Subject: Testimony in Support of SB 2738 SD2 HD1

HOUSE COMMITTEE ON FINANCE
Tuesday, April 5, 2:31 P.M.
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We need this to make a difference
Michael Kelly 11-1808 Moano st. Hilo HI

From: Curtiss Ako <akocurtiss@gmail.com>
Sent: Sunday, April 03, 2016 6:34 AM
To: FINTestimony
Subject: Testimony in Support of SB 2738 SD2 HD1

HOUSE COMMITTEE ON FINANCE
Tuesday, April 5, 2:31 P.M.
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Curtiss C. Ako, retired EUTF
777 Elepaio St., Hon., Hi. 96816

From: Scott White <scottwhite53@gmail.com>
Sent: Sunday, April 03, 2016 6:26 AM
To: FINTestimony
Subject: Testimony in Support of SB 2738 SD2 HD1

HOUSE COMMITTEE ON FINANCE
Tuesday, April 5, 2:31 P.M.
Testimony in Support of SB 2738 SD2 HD1

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Scott and Nancy White
27 Unahe
Kahului, HI 96732

Sent from my iPad

From: kristi kranz <kranzilks@aol.com>
Sent: Sunday, April 03, 2016 6:18 AM
To: FINTestimony
Subject: Testimony in Support of SB 2738 SD2 HD1

HOUSE COMMITTEE ON FINANCE
Tuesday, April 5, 2:31 P.M.
Testimony in Support of SB 2738 SD2 HD1

Chair Luke and members of the Committee:

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I strongly agree with the above sentiments Sincerely, Kristi Kranz Box 190546 Hawi Hi 96719

Sent from my iPad

From: Heraldo Farrington <heraldof@stanford.edu>
Sent: Sunday, April 03, 2016 6:18 AM
To: FINTestimony
Subject: Testimony in Support of SB 2738 SD2 HD1

HOUSE COMMITTEE ON FINANCE
Tuesday, April 5, 2:31 P.M.
Testimony in Support of SB 2738 SD2 HD1

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Mahalo for doing the right thing!

Heraldo Farrington
PO Box 952
Volcano, HI 96785

From: Gary Hu <gary.hu@chargebliss.com>
Sent: Monday, April 04, 2016 10:38 AM
To: FINTestimony
Subject: Testimony in Support of SB 2738 SD2 HD1

HOUSE COMMITTEE ON FINANCE
Tuesday, April 5, 2:31 P.M.
Testimony in Support of SB 2738 SD2 HD1

Chair Luke and members of the Committee:

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I represent Charge Bliss, a microgrid design company that has won about \$10M in government grant monies in California, a lot thanks to the availability of Green Button Data. In Hawaii, the utility is not able to supply that information needed to properly solve the "calculus problem" for providing the ideal design for batteries and auxiliary components to do our microgrid projects. With a rebate for batteries in place, the need for 1 years worth of green button data is slightly alleviated and Charge Bliss can continue to modernize the grid and infrastructure to allow our island and its people to flourish and thrive.

GARY HU
1747B Lanakila Ave
Honolulu, HI 96817

From: Jewel Shell <jewel1944@msn.com>
Sent: Monday, April 04, 2016 11:50 AM
To: FINTestimony
Subject: I strongly support SB 2738

Dear House Committee on Finance Chair Luke and members of the Committee,

I strongly support SB 2738 SD2 HD1, creating a smart rebate program that kickstarts the deployment of energy storage and helps the "little guy" be a part of Hawaii's clean energy future. This measure is a critical step in securing Hawaii's energy future, reducing our contribution to global climate change, and reducing the cost of living in Hawaii. Much like existing rebates for CFLs, LEDs, and solar water heaters, this measure is a common-sense policy that has the long-term interests of Hawaii residents in mind.

Sincerely,

Jewel Shell

PO Box 4920
Kailua-Kona, HI 96745

From: KonaBen <bendysart@hawaii.rr.com>
Sent: Monday, April 04, 2016 12:31 PM
To: FINTestimony
Subject: Testimony in Support of SB 2738 SD2 HD1

HOUSE COMMITTEE ON FINANCE
Tuesday, April 5, 2:31 P.M.
Testimony in Support of SB 2738 SD2 HD1
Chair Luke and members of the Committee:
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From: David Filing <Djfilling@netzero.net>
Sent: Monday, April 04, 2016 1:01 PM
To: FINTestimony
Subject: I strongly support SB 2738

Dear House Committee on Finance Chair Luke and members of the Committee,

I strongly support SB 2738 SD2 HD1, creating a smart rebate program that kickstarts the deployment of energy storage and helps the "little guy" be a part of Hawaii's clean energy future. This measure is a critical step in securing Hawaii's energy future, reducing our contribution to global climate change, and reducing the cost of living in Hawaii. Much like existing rebates for CFLs, LEDs, and solar water heaters, this measure is a common-sense policy that has the long-term interests of Hawaii residents in mind.

Sincerely,

David Filing

14-2662 Pahoia Village rd
Ste 306-8580
Pahoia, HI 96778

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

LATE

April 5, 2016
2:31 p.m.

MEASURE: S.B. No. 2738, S.D. 2, H.D. 1
TITLE: Relating to Renewable Energy

Chair Luke and Members of the Committee:

DESCRIPTION:

This measure uses funds from the Hawaii Green Infrastructure Special Fund to establish an energy storage system rebate program for individuals installing an eligible energy storage system within the State.

POSITION:

The Public Utilities Commission (“Commission”) offers the following comments for the Committee’s consideration.

COMMENTS:

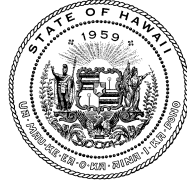
The Commission defers to the Department of Business, Economic Development, and Tourism (“DBEDT”) with respect to the policy merits of establishing a rebate program for energy storage systems.

The Commission concurs with DBEDT’s assertion that the Hawaii Green Infrastructure Special Fund was intended and designed to fund a loan program, not a rebate program. Designating a portion of the monies in the Hawaii Green Infrastructure Special Fund for a rebate rather than a loan is inconsistent with the purpose and design of the Hawaii Green Infrastructure Special Fund and would result in a lack of funds for the repayment of interest that is owed on these loans.

Thank you for the opportunity to testify on this measure.

DAVID Y. IGE
GOVERNOR

SHAN TSUTSUI
LT. GOVERNOR



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

MARIA E. ZIELINSKI
DIRECTOR OF TAXATION

JOSEPH K. KIM
DEPUTY DIRECTOR

LATE

To: The Honorable Sylvia Luke, Chair
and Members of the House Committee on Finance

Date: Tuesday, April 5, 2016
Time: 2:31 P.M.
Place: Conference Room 308, State Capitol

From: Maria E. Zielinski, Director
Department of Taxation

Re: S.B. 2738, S.D. 2, H.D. 1, Relating to Renewable Energy.

The Department of Taxation (Department) appreciates the intent of S.B. 2738, S.D. 2, H.D. 1, and offers the following comments for your consideration.

S.B. 2738, S.D. 2, H.D. 1, creates a rebate program for energy storage systems installed and placed in service within the State. The rebate is available at different amounts depending on the amount of money present in the energy storage system fund, which is also created by this measure. The rebate program is administered by the Department of Business, Economic Development, and Tourism. The measure is effective upon approval.

The Department notes that prior versions of this measure proposed amendments to the Renewable Energy Technologies Income Tax Credit (RETITC) which have been removed in this version of the measure. The Department additionally notes that the RETITC is applicable to energy storage equipment if the equipment is purchased as part of a renewable energy system as that term is used in section 235-12.5, Hawaii Revised Statutes. The RETITC would not apply to energy storage equipment purchased on its own.

The proposed rebate program would apply to all installations of energy storage equipment, including ones for which the RETITC was claimed. The Department suggests that a provision be added to Section 1 of this measure stating that the RETITC or any other tax credit may not be claimed for systems that received benefits from the energy storage system rebate program.

Thank you for the opportunity to provide comments.

LATE



Directors

Jody Allione
Project Development
Consultant

Joe Boivin
Hawaii Gas

Kelly King
Pacific Biodiesel

Warren S. Bollmeier II
WSB-Hawaii

TESTIMONY OF WARREN BOLLMEIER ON BEHALF OF THE
HAWAII RENEWABLE ENERGY ALLIANCE BEFORE THE
HOUSE COMMITTEE ON FINANCE

SB 2738 SD2 HD1 RELATING TO ENERGY

April 5, 2016

Chair Luke, Vice-Chair Nishimoto 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 purpose of SB 2738 HD1 is to establish an energy storage system rebate program to provide qualified individuals a one-time rebate for installing an eligible energy storage system within the State.

HREA **supports** this measure and offers the following comments in support:

- 1) The measure would amend the Green Energy Market Securitization ("GEMS") Program to:
 - a) establish an energy storage system rebate program and
 - b) allocate \$50 million of the Program's existing \$150 million in Green Infrastructure Bonds to fund the program,
- 2) Establishment of an energy storage system rebate program will directly address the state's immediate need for energy storage technology and help us move rapidly in meeting our clean energy goals,
- 3) HREA understands that SunPower has indicated to us their intention to propose some amendments that will enhance and strengthen the impact of the measure,
- 4) We wholeheartedly support SunPower's recommended amendments, and encourage the Committee to give them serious consideration.

Mahalo for this opportunity to testify.

From: John Speight <scootersdad2@yahoo.com>
Sent: Monday, April 04, 2016 3:10 PM
To: FINTestimony
Subject: I strongly support SB 2738



Dear House Committee on Finance Chair Luke and members of the Committee,

I strongly support SB 2738 SD2 HD1, creating a smart rebate program that kickstarts the deployment of energy storage and helps the "little guy" be a part of Hawaii's clean energy future. This measure is a critical step in securing Hawaii's energy future, reducing our contribution to global climate change, and reducing the cost of living in Hawaii. Much like existing rebates for CFLs, LEDs, and solar water heaters, this measure is a common-sense policy that has the long-term interests of Hawaii residents in mind.

Sincerely,

John Speight

15-2704 Hou St
Pahoa, 96778

From: mailinglist@capitol.hawaii.gov
Sent: Monday, April 04, 2016 3:58 PM
To: FINTestimony
Cc: lornd@yahoo.com
Subject: Submitted testimony for SB2738 on Apr 5, 2016 14:31PM



SB2738

Submitted on: 4/4/2016

Testimony for FIN on Apr 5, 2016 14:31PM in Conference Room 308

Submitted By	Organization	Testifier Position	Present at Hearing
Lorn	Individual	Support	No

Comments: It's time for Hawaii to take more aggressive steps to make the goals of self-sufficiency come true... Please pass this measure.... thanks, Lorn DOuglas

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



LATE

Email: communications@ulupono.com

HOUSE COMMITTEE ON FINANCE
Tuesday, April 5, 2016 — 2:31 p.m. — Room 308

Ulupono Initiative Offers Comments on SB 2738 SD 2 HD 1, Relating to Renewable Energy

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

Our names are Murray Clay and Kyle Datta, and we are respectively, the Managing Partner and General Partner of 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 produced food; increase affordable, clean, renewable energy; and reduce waste. We believe that self-sufficiency is essential to our future prosperity and will help shape a future where economic progress and mission-focused impact can work hand in hand.

Ulupono offers comments on SB 2738 SD 2 HD 1, which creates an energy storage system rebate program, because it aligns with our goal of increasing the production of clean, renewable energy in Hawai'i.

While Ulupono believes that an energy storage incentive needs to be established to meet the State's 100% renewable portfolio standard goal, there are more effective and prudent ways to implement the intent than the proposed rebate program, which transfers funds from the Hawai'i Green Infrastructure Special Fund (GEMS). The green infrastructure special fund was established in June 2013 to provide low-cost financing for energy technology to ensure all ratepayers receive an opportunity for affordable clean energy. A \$50M transfer from the \$150M GEMS special fund to an energy storage special fund restricts investment to only battery energy storage and decreases the pool of capital for the GEMS program, potentially limiting the amount of loans available for consumers and limiting the technologies that the funding could be applied toward. The rebate program complicates the repayment of the green infrastructure bonds, as there is no direct revenue generating component of the rebate. If a rebate were to be enacted, perhaps Hawai'i Energy, which already manages rebates, would be better suited to manage this program than DBEDT.

Instead, Ulupono prefers the previous versions of this bill in Senate Bill 2738 Senate Draft 2 or Part I of Senate Bill 2738 Senate Draft 2 Proposed House Draft 1. These versions

Investing in a Sustainable Hawai'i



included a tax credit for energy storage that was paid for through an equitable reduction in the solar photovoltaic tax credit (RETITC). We believe this is an effective way to fund the tax credit for energy storage. Unfortunately, the HD 1 version negatively impacts the GEMS program, which we feel is already positioned to finance renewable energy infrastructure through its own effective mechanisms. According to Ulupono's own economic analysis, we believe the local solar industry could absorb the solar photovoltaic tax credit reduction in exchange for the creation of an energy storage tax credit. Furthermore, after reviewing Distributed Energy Resources Council's (DERC) economic analysis, which shows that the total tax credits claimed for energy storage will not exceed the total reduction in the solar photovoltaic tax credits under the previous versions of this bill over the next five years, Ulupono believes DERC's analysis to be reasonable.

Energy storage is the key missing next piece for Hawai'i to meet its 100% renewable portfolio standard goal. Energy storage systems allow for increased adoption of all types of renewable energy generation and improve the resilience of the electrical grid.

Ulupono also agrees with Hawaiian Electric Company that customers that use an energy storage tax credit should remain connected to the electric grid system. It is Ulupono's intent to have more energy storage connected to the grid, which benefits all ratepayers.

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

Thank you for this opportunity to testify.

Respectfully,

Murray Clay
Managing Partner

Kyle Datta
General Partner

LATE

From: mailinglist@capitol.hawaii.gov
Sent: Monday, April 04, 2016 9:15 PM
To: FINTestimony
Cc: 333cory@gmail.com
Subject: Submitted testimony for SB2738 on Apr 5, 2016 14:31PM

SB2738

Submitted on: 4/4/2016

Testimony for FIN on Apr 5, 2016 14:31PM in Conference Room 308

Submitted By	Organization	Testifier Position	Present at Hearing
Cory Harden	Individual	Support	No

Comments: Aloha legislators, Please support SB 2738 for solar energy storage rebates. This initiative uses the Public Benefit Fund, which is already dedicated to clean energy. It would preserve solar industry jobs which took a huge hit after the elimination of net energy metering. Customer-sited energy storage can avoid billions in costs for power plants and grid improvements. mahalo, Cory Harden, Hilo

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

LATE

From: Tom&Consuelo <twk@croisancreek.com>
Sent: Monday, April 04, 2016 8:37 PM
To: FINTestimony
Subject: Testimony in Support of SB 2738 SD2 HD1

HOUSE COMMITTEE ON FINANCE
Tuesday, April 5, 2:31 P.M.
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Sent from my iPhone

From: Samuel Rombaoa <samrombaoa@gmail.com>
Sent: Monday, April 04, 2016 8:28 PM
To: FINTestimony
Subject: Testimony in Support of SB 2738 SD2 HD1

LATE

HOUSE COMMITTEE ON FINANCE
Tuesday, April 5, 2:31 P.M.
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Samuel P. Rombaoa

*From: Keith Wallach <keithwallach@hawaiiantel.net>
Sent: Monday, April 04, 2016 8:20 PM
To: FINTestimony
Subject: Testimony in Support of SB 2738 SD2 HD1*

LATE

HOUSE COMMITTEE ON FINANCE
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<PERSONAL COMMENTS>

<YOUR NAME AND ADDRESS>

From: Carol Stams <stamsj@gmail.com>
Sent: Tuesday, April 05, 2016 8:31 AM
To: FINTestimony
Subject: Testimony in Support of SB 2738 SD2 HD1

LATE

HOUSE COMMITTEE ON FINANCE
Tuesday, April 5, 2:31 P.M.
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Sent from my iPad

From: Christal Nylin <cvvncc@gmail.com>
Sent: Tuesday, April 05, 2016 12:10 PM
To: FINTestimony
Subject: Testimony in Support of SB 2738 SD2 HD1



HOUSE COMMITTEE ON FINANCE
Tuesday, April 5, 2:31 P.M.
Testimony in Support of SB 2738 SD2 HD1

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<PERSONAL COMMENTS>

<YOUR NAME AND ADDRESS>

FINTestimony

LATE

From: Betty Olson Evenson <Beeolson2@gmail.com>
Sent: Tuesday, April 05, 2016 3:00 PM
To: FINTestimony
Subject: I strongly support SB 2738

Dear House Committee on Finance Chair Luke and members of the Committee,

I strongly support SB 2738 SD2 HD1, creating a smart rebate program that kickstarts the deployment of energy storage and helps the "little guy" be a part of Hawaii's clean energy future. This measure is a critical step in securing Hawaii's energy future, reducing our contribution to global climate change, and reducing the cost of living in Hawaii. Much like existing rebates for CFLs, LEDs, and solar water heaters, this measure is a common-sense policy that has the long-term interests of Hawaii residents in mind.

Sincerely,

Betty Olson Evenson

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