HB1943
Submitted on: 1/29/2014
Testimony for EEP on Jan 30, 2014 08:30AM in Conference Room 325

Submitted By	Organization	Testifier Position	Present at Hearing
Sarah Allen	State Procurement Office	Comments Only	Yes

Comments: The State Procurement Office's (SPO) comments are that the State Procurement Office (SPO) does not support the language in SECTION 1 and SECTION 4 to exempt the Public Utilities Commission from section 103D-304, Procurement of professional services in conducting their subject proceedings relating to the modernization of the Hawaii Electric System. The SPO opposes the language on page 5, lines 16 to 20 and page 8 lines 11 to 13.

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TESTIMONY OF HERMINA MORITA
CHAIR, PUBLIC UTILITIES COMMISSION
DEPARTMENT OF BUDGET AND FINANCE
STATE OF HAWAII
TO THE
HOUSE COMMITTEE ON
ENERGY & ENVIRONMENTAL PROTECTION

JANUARY 30, 2014
8:30 a.m.

MEASURE: H.B. No. 1943
TITLE: Relating to the Modernization of the Hawaii Electric System

Chair Lee and Members of the Committee:

DESCRIPTION:

This measure proposes to amend Section 269-145, Hawaii Revised Statutes ("HRS"), by requiring the Public Utilities Commission ("Commission") to take steps to "ensure any person, business, or entity can make a safe and reliable interconnection on the Hawaii electric system in a timely manner and for a reasonable cost" no matter where that person, business, or entity is located on the Hawaii electric system as defined under HRS § 269-141 ("Hawaii Electric System"). Similarly, HRS § 269-145.5 would be amended to require the Commission to ensure any person, business, or entity can "operate customer generation" without respect to where the person, business, or entity is located on the Hawaii Electric System. The Commission is also required to commence a regulatory proceeding to consider how different grid modernization and planning actions by Hawaii's utilities "can accommodate anticipated growth in customer generation," in addition to considering the appropriateness, as well as the specific details, of a system of differentiated authorized rates of return on common equity to encourage utility infrastructure investments. Further, the Commission must report its findings and recommendations from the mandated regulatory proceeding prior to the 2016 legislative session. Finally, a general fund appropriation for fiscal year 2014-2015 of $750,000 is provided for the regulatory proceeding.

POSITION:

The Commission has serious concerns regarding this measure and would like to offer the following comments for the Committee's consideration.

COMMENTS:

While the title of H.B. No. 1943 is intended to address the grid modernization of Hawaii's electrical system, the Commission is concerned that this legislation, as written, is solely focused on interconnection issues related to customer-sited generation by creating a statutory right to interconnect distributed generation facilities, which may be to the detriment of the rest of the electric system and at the expense of the ratepayers who may not have the ability to site these types of systems on their homes or businesses.

The Commission strongly supports the timely review, safe interconnection, and cost-effective installation of customer-sited generation, as well as a whole host of other customer energy options that include demand response, time-of-use rates and energy efficiency to help manage customers' energy costs, but such decisions should not be made at the expense of other electricity customers who may have limited or no alternative energy options. Nor should these decisions be made at the expense of electric system reliability. Actions and decisions recently taken by the Commission, as well as the work related to pending decisions, are highly supportive of a diverse portfolio of cost-effective renewable energy resources and the State's overall clean energy policy goals aimed at benefitting all electricity ratepayers. As technology evolves and electricity customers' choice of energy options increase, cost and rate structures must also change by charging a fair price for services provided by the electric grid and paying electricity customers a fair price for the grid benefits they create to ensure a robust and stable electric grid. These issues of interconnection standards, cost allocation, and rate design are best addressed through Commission procedures and tariffs.

Last year this body passed S.B. No. 1040, codified as Act 34, Session Laws of Hawaii 2013, which describes grid modernization as a broad concept that encompasses improving the technical functionality of the grid in a way that advances the increase of alternative customer energy options and the overall reliability, resiliency, flexibility, and efficiency of the Hawaii Electric System. The Commission views the ability to interconnect customer-sited generation and increased customer energy options as a result of a robust, well-functioning grid, not the means to achieve a modernized electric system.

The Commission is committed to taking actions that further the State's clean energy policy goals through the use of an increasing and diverse portfolio of cost-effective renewable energy resources, including distributed generation. Several examples of

recent and pending Commission proceedings and decisions in support of Hawaii's clean energy goals include:

- MECO Rate Case and Wind Curtailment – The Commission's decision making in the course of Maui Electric Company, Ltd.'s most recent rate case in Docket No. 2011-0092 regarding curtailment of renewable energy on the Island of Maui has resulted in a better understanding and the identification of utility actions to be taken to increase the use of lower cost renewable energy that had been previously curtailed or wasted.

- Decoupling Review – A review of the Hawaiian Electric Companies' decoupling mechanism by the Commission under Docket No. 2013-0141 was initiated in 2013 and is ongoing.

- Development of On-bill Financing and Green Energy Market Securitization – The Commission continues to work with various stakeholders on the development and subsequent implementation of a Hawaii On-bill Financing ("OBF") Program and Green Energy Market Securitization ("GEMS") Program. Both programs are intended to increase access to renewable energy technology – including customer-sited generation technology – for various segments of the population that have not traditionally had the ability or means to acquire such technology. These "hard-to-reach" segments include renters and other residents lacking access to traditional capital or financing sources. The launch of the OBF Program, as well as the filing of applications for the GEMS Program, are planned for the first quarter of 2014.

- Electric System Reliability – The Commission's decision on the work of the Reliability Standards Working Group ("RSWG") [Docket No. 2011-0206] is anticipated in the near future. In addition, the Commission is currently considering necessary reliability functions and processes associated with the work of the RSWG and the overall reliable operation of the Hawaii Electric System, such as the development of the Hawaii Electricity Reliability Administrator authorized under Act 166, Session Laws of Hawaii 2012.

- Principal Issues and Guidance in Integrated Resource Planning – While pending final review and decision by the Commission, the consolidated integrated

resource planning process for the Hawaiian Electric Companies[1] under Commission Docket No. 2012-0036 ("2013 IRP") was designed to have the different investor-owned utility companies address a host of essential principal issues concerning the future state of the electricity service market in Hawaii. A Commission decision for the 2013 IRP Proceeding is also anticipated to be issued in the near term, and will provide further regulatory guidance on issues relevant to the items raised in this measure.

The Commission supports the development of a modernized grid, which can help accommodate more renewable energy, including distributed generation resources, and the Commission will continue to make this an essential part of its long-term strategy. Thus, the Commission supports receiving legislative guidance and would be open to conducting a proceeding that addresses those issues appropriately identified by the Legislature.

Specific Concerns

The Commission has strong concerns with the provisions of H.B. No. 1943 that create a right to interconnect to the grid, specifically those provisions that would:

- "[E]nsure any person, business, or entity can make a safe and reliable interconnection on the Hawaii electric system in a timely manner and for a reasonable cost" regardless of where that entity is located [page 6, line 7 to line 13],

- "[E]nsure that any person, business, or entity can operate customer generation regardless" of the site of generation [page 7, lines 11 to 14].

There are a number of potentially unintended consequences that could occur as a result of creating such a right in statute. Section 1 of this bill indicates that strict cost causation principles "prevent all Hawaii residents from accessing the Hawaii electric system for a reasonable cost," but the measure does not indicate a more fair method of cost allocation to be applied or the avoidance of remaining system costs that are then covered by other non-self-generating customers.

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[1] The Hawaiian Electric Companies include Hawaiian Electric Company, Inc., Maui Electric Company, Ltd., and Hawaii Electric Light Company, Inc.

Further, it is unclear from the bill's language whether there would be the potential for conflicting agency oversight or whether the Commission would be given influence or authority for overseeing regulatory areas (e.g., permitting) that are appropriately handled by other governmental entities. Stated differently, is this bill intended to require the Commission to ensure that other entities with jurisdiction over such matters as siting and environmental concerns agree to an interconnection regardless of whether other laws or regulations would prevent the interconnection? The practical effects of making the Commission responsible for ensuring grid interconnections and customer generation operations are not clearly explained in this measure.

Oversight of technical and economic issues that directly affect electric utility system operations are within the purview of the Commission, and the Legislature reaffirmed this structure with the passage of Act 166, Session Laws of Hawaii 2012, which authorized the Commission to handle the development, adoption, and enforcement of electric system reliability standards and associated rules. The Legislature provided the Commission with further guidance via Act 37, Session Laws of Hawaii 2013, regarding actions and approved mechanisms "to induce and accelerate electric utilities' cost reduction efforts, *encourage greater utilization of renewable energy*, accelerate the retirement of utility fossil generation, and *increase investments to modernize the State's electrical grids*." The prescriptive provisions of H.B. No. 1943 make it unclear and potentially confusing to the Commission what the Legislature's intention and approach are for developing a modern, responsive Hawaii Electric System, and this may have the potential of kicking disputes over reasonable interconnection costs to the courts for resolution.

Alternative Solutions

The Commission recognizes the frustration that has been caused by the Hawaiian Electric Companies' inability to review and accommodate net energy metering applications in a timely manner due to the exponential growth of customer-sited installations. However, the various technical, economic, fairness, and equity issues cannot be overlooked. Rather than focus on the narrower issues of interconnection and customer generation rights, the Commission would offer that the Legislature provide guidance to the Commission to institute an investigation looking at the technical and process issues, as well as the larger economic and policy issues, associated with modernizing the grid and offering increased customer energy options (e.g., demand response, increased energy efficiency, community-based renewable energy programs, etc.) in a rapidly changing environment.

The electric utility model evolved pursuant to what is known as the traditional regulatory compact. Under this arrangement, electric utilities are provided the opportunity to earn a reasonable return on capital in exchange for a taking on the obligation to commit the necessary capital to serve all comers. The customers purchased all or a major portion of their electricity needs directly from the utilities. Today, the proliferation of distributed generation, independent power producers, and other advancements in the energy sector have led to a far more complicated electric system. While the majority of customers remain completely reliant on the electric utilities for electrical service, a growing number of customers are capable of generating their own electricity. The traditional regulatory compact does not encapsulate the range of relationships that today's electric system incorporates. In light of the changing landscape and complexity of the modern electric system, the Commission believes that a review of the fundamental electric utility-customer relationship is warranted.

Thank you for the opportunity to testify on this measure.

NEIL ABERCROMBIE
GOVERNOR

SHAN S. TSUTSUI
LT. GOVERNOR

STATE OF HAWAII
OFFICE OF THE DIRECTOR
DEPARTMENT OF COMMERCE AND CONSUMER AFFAIRS
335 MERCHANT STREET, ROOM 310
P.O. Box 541
HONOLULU, HAWAII 96809
Phone Number: 586-2850
Fax Number: 586-2856
www.hawaii.gov/dcca

KEALI`I S. LOPEZ
DIRECTOR

JO ANN M. UCHIDA TAKEUCHI
DEPUTY DIRECTOR

TO THE HOUSE COMMITTEE ON
ENERGY & ENVIRONMENTAL PROTECTION

THE TWENTY-SEVENTH LEGISLATURE
REGULAR SESSION OF 2014

THURSDAY, JANUARY 30, 2014
8:30 A.M.

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

HOUSE BILL NO. 1943 - RELATING TO THE MODERNIZATION OF THE HAWAII ELECTRIC SYSTEM

DESCRIPTION:

This measure proposes to require the Public Utilities Commission to adopt rules for improved accessibility to connect to the Hawaii electric system for any individual or business. It also requires the Commission to initiate a proceeding no later than July 1, 2014, to discuss upgrades to the Hawaii electric system for anticipated growth of customer generation.

POSITION:

The Division of Consumer Advocacy supports the intent of this measure with comments.

COMMENTS:

The Consumer Advocate is aware of the number of technical issues that are arising due to the current state of the electric grids on Hawaii's islands. The current electric grids are unable to accommodate all of the individuals and businesses that are interested in interconnecting distributed generation systems, more commonly known as photovoltaic systems or PV systems, without some delay, additional studies, and/or costs. The current electric grids also constrain the ability to add larger renewable energy projects as well.

The Consumer Advocate has concerns; however, with the mandate that each electric grid be modified to ensure that "any person, business, or entity can operate customer generation regardless of where that person, business, or entity is located." Besides the issues associated with upgrading the electric grid, there are also issues that need to be addressed with respect to the costs that non-participants, or entities that cannot or have not installed their own customer generation, must bear. If the grids must be upgraded to allow every customer to interconnect, even if they cannot (e.g., a low income resident living in a rental unit) or should not (e.g., a resident or business that may be located close to a mountain that blocks access to the afternoon sun), the costs of such upgrades on all customers may be unreasonable. The Consumer Advocate urges this committee to be aware that there may be unintended, adverse consequences on ratepayers if this measure is passed.

The issue of how the grid should be upgraded and the evaluation of the costs associated with such upgrades are expected to be analyzed in the recommended actions identified by the final report filed by the independent facilitator in Docket No. 2011-0206, which was the Commission's Reliability Standards Working Group proceeding. Until those actions have been completed, the proposed measure may be premature.

Thank you for this opportunity to testify.

TESTIMONY BEFORE THE HOUSE COMMITTEE ON ENERGY AND ENVIRONMENT

H.B. No. 1943

RELATING TO THE MODERNIZATION OF THE HAWAII ELECTRIC SYSTEM

January 30, 2014
8:30 am
State Capitol, Conference Room 325

Scott Seu
Vice President, Energy Resources and Operations
Hawaiian Electric Company, Inc.

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

My name is Scott Seu and I represent Hawaiian Electric Company and its subsidiary utilities Maui Electric Company and Hawaii Electric Light Company. This bill would direct the PUC to open a proceeding by July 14, 2014 to (1) address technical and economic barriers to interconnecting customer generation in a timely manner, and ensure that any person, business, or entity can interconnect and operate customer generation; and (2) consider whether the establishment of differentiated authorized rates of return on common equity are warranted to encourage increased utility investments in transmission, distribution infrastructure, and advanced grid modernization technology.

We support the objectives of improving the interconnection process and encouraging modernization of the grid, and believe that there is validity in having the PUC open a docket on technical and economic issues associated with customer owned distributed generation. However, we cannot support this bill in its current form as it does not allow the PUC to holistically consider customer owned distributed generation and grid modernization in the context of a broader energy resource mix, in order to fairly maximize benefits and minimize costs to all customers, not just those with distributed generation.

This bill fundamentally does three things. First, it relies on a premise that customer owned distributed generation should be foremost among the clean energy resources to serve the residents of our State. We agree that distributed generation is an important and integral piece of our energy portfolio. However, the majority of our customers are served by other types of renewable energy resources, such as wind farms, solar farms, H-Power, geothermal, biomass and biofuel plants. We believe

that having a diversified renewable energy portfolio is in the best interests of the State.

Secondly, the bill assures that costs to interconnect customer owned generators will have to be spread across other customers, as the bill requires the PUC to "ensure any person, business, or entity can make a safe and reliable interconnection on the Hawaii electric system in a timely manner and for a reasonable cost regardless of where that person, business, or entity is located on the Hawaii electric system." The actual costs of interconnection are highly site specific, and also dependent on the customer's generation system. To guarantee that the customer generator will be able to connect at reasonable cost no matter where they are on the grid means that costs will need to be "shared" with other customers. This requires further discussion among the stakeholders and our regulatory body.

Third, the bill assumes that there is no practical or feasible limit to connecting PV to a grid or circuit, and that it is merely a matter of grid modernization and more robust process to process interconnection applications. Although we continue to push forward in leading the nation on distributed PV that we have on our circuits, we have not determined how far we can truly go without negatively impacting the rest of our customers that do not have PV. In addition, there will be island-wide issues of excess energy and system level reliability that apply to the entire mix of energy generators, whether they are larger centralized generating facilities or distributed generation.

We appreciate the intent that is being proposed in HB 1943 and it is appropriate for the PUC to review the issues concerning customer generation. However, it should be through a broader lens that considers customer generation as part of a larger energy portfolio. We respectfully recommend that the Committee consider our concerns and amend HB 1943 as such.

Thank you for this opportunity to testify.

Hawaii Solar Energy Association
Serving Hawaii Since 1977

Before the House Committee on Energy and Environmental Protection
Thursday, January 30, 2014, 8:30 a.m.., room 325
HB 1943: Relating to the Modernization of the Hawaii Electrical System

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

On behalf of the Hawaii Solar Energy Association (HSEA), I would like to testify in **strong support** for HB 1943, which directs the public utilities commission to open a proceeding by July 1, 2014 to address the technical and economic barriers of interconnection for residential and commercial customers, and to consider whether the establishment of differentiated authorized rates of return on common equity are warranted to encourage utility investments in grid improvements. HSEA is a non-profit trade organization that has been advocating for solar energy since 1977, with an emphasis on residential distributed generation and commercial for both solar hot water (SHW) and photovoltaics (PV). We currently represent 79 companies, and our members include installers, contractors, manufacturers, distributers, the utility, and others. With 37 years of advocacy behind us, HSEA's goal is to work for a sustainable energy future for all of Hawaii.

Hawaii currently faces unprecedented challenges in moving forward in our clean energy goals as our current grid infrastructure has proved to be inadequate to the task of allowing residential and small commercial customers to install photovoltaics in a timely manner and for a reasonable cost. Although issues of grid access have been ongoing on the Big Island and Maui for the last few years, the industry has slowed significantly after the utility announced new interconnection rules on September 6, 2013.

The September announcement had an immediate impact on customers and the solar industry. In the month of December 2013 alone, there were only 1,140 permits issued on Oahu, a reduction from 1,925 permits issued in 2012, a drop of 40% and the eight straight month of decline compared to the same month in 2012. The reduced number of installations appears to be continuing in 2014, and this stagnation will likely continue until the questions of interconnection availability and costs are adequately addressed.

The utility sites concerns about safety and reliability, and no one questions that safety and reliability is key. However, the issue here is that although the utility had ample notice that grid studies and upgrades were required in order to move forward with our clean energy goals and to support customer's interest in being part of the green energy infrastructure, the utility failed to adequately plan. The installation of PV in the utility's territories had doubled each year since 2008, starting with 471 systems installed through net energy metering in 2008, and growing to almost 40,000 systems today. Yet, the utility is only now conducting needed in-the-field analyses, the results of which may only produce more questions about grid stability.

In addition to the lost opportunities in reducing our dependence on imported fossil fuels by having more aggregate PV installed across the Hawaiian electric territories, the interconnection slow-down has also resulted in significant loss in tax revenue, both in the form of GET and income tax. Furthermore, the solar industry, which comprises approximately 26% of all of the construction income for the state, has

slowed significantly, and this has resulted in the loss of hundreds of jobs—in a time when green energy jobs should be on the rise.

In addition to customers facing technical roadblocks, they also face financial uncertainty as they are now required to pay the prorated costs of upgrades, which the utility has yet to determine in most cases. On Maui, for instance, customers are now told that they will pay from $600 to $1,600/kW, which means a cost of $3,000 to $8,000 for upgrades, in addition to the cost of the system, plus a wait of 18 months, and 18 months of unanticipated electric bills, making the installation of solar financially out of reach for many. Customers on Oahu, who up until September 6th, 2013, did not pay for prorated upgrade costs if the system was under 10kW, are still waiting to find out how much the cost might be. They expect to hear sometime later this year, and customers on the Big Island face similar roadblocks. And these roadblocks are hitting middle class families struggling to make ends meet and pay the highest electric rates in the nation. A zip code analysis, for instance, for Oahu shows that many of the permits pulled for PV were in middle class neighborhoods.

The impact of inadequate preparation and study of the grid and the application of upgrade costs directly to the customer has hit the state in many ways. First, customers have been frustrated in their goal of installing solar, and even for those who can, they face potentially significant costs to pay for upgrades. A reduction of 40% in pulled permits means a reduction of about 40% in the installation of PV, and this under the deadline of the federal tax credit, due to expire in 2016. In addition, the reduced grid access stands to impact several programs recently adopted such as on-bill financing, on-bill repayment, and GEMS, which would have made available low cost funding for hard to reach customers like renters and low income ratepayers. Without grid access, these programs will go nowhere.

This means slower and stalled out progress in reaching our clean energy goals, a continued reliance on imported fossil fuels, lost opportunities for customers to take charge of their bills and invest in the state's infrastructure, a slowed economy, lost jobs, and reduced tax revenues. This also means that Hawaii will burn more fossil fuels than it needs to and pump more greenhouse gases into the atmosphere. An overall 20% reduction in installation of PV in 2013 adds up to an additional 57,897 barrels of oil that will be burned each year for the next 30 years, all of which would have been off-set by self-generation.

Everyone agrees that the issues of grid access and cost allocation are complex. But the discussion should have begun in earnest years ago. What technical upgrades are available, and how would they be implemented? What is the cost, and how should it be allocated? How can we best meet our clean energy goals, and beyond, while having a robust utility grid, and a variety of clean energy sources? Time is short, and now is the time to bring our grid up to "grid 2.0."

Thank you for the opportunity to testify

Leslie Cole-Brooks
Executive Director
Hawaii Solar Energy Association

Sunrun Inc. | 1.855.4SUNRUN | sunrunhome.com

HOUSE COMMITTEE ON ENERGY & ENVIRONMENTAL PROTECTION

Thursday, January 30, 2014

TESTIMONY IN SUPPORT OF HB 1943 RELATING TO THE MODERNIZATION OF THE HAWAII ELECTRIC SYSTEM

Sarah Bertram, Director, Public Policy, Sunrun

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

Thank you for the opportunity to provide testimony in strong support of HB 1943.

Sunrun is a leading residential solar company with a national reach. Sunrun has been serving customers in Hawaii since 2010 by partnering with local solar installers. To date, Sunrun has invested more than $140M to support approximately 4,000 homeowners across the islands in adopting rooftop solar.

In the four years since Sunrun entered the market, we have observed two clear trends:

1. **The total amount of rooftop solar in Hawaii has roughly doubled each year.** As a result of growing consumer demand for home solar, approximately one in ten homes have solar today and many more homeowners want to install solar in the future.

   Sunrun supports HB 1943 because it acknowledges that this increasing consumer desire to serve on-site electricity load with rooftop solar is in the public interest. Beyond allowing homeowners to take action to control their utility bills, rooftop solar advances Hawaii's environmental goals and supports thousands of local jobs.

   A September 2013 poll conducted by Tulchin research (N=600) shows how consumer demand for rooftop solar shapes the public's policy views: ninety percent of respondents agreed with the statement (including 67% who *strongly* agree) that "we should allow and encourage as many people as we can to install solar power in their homes and businesses to advance the state's clean energy goals." The legislature in Hawaii has a clear history of supporting policies like HB 1943 that seek to achieve this objective.

2. **The number of customers experiencing considerable uncertainty and/or delays in adopting solar due to utility interconnection challenges has significantly increased.**

   Although Hawaii has the highest overall level of rooftop solar per capita, nine out of ten homes do not have rooftop solar today. Further, the State is only a quarter of the way to achieving its renewable energy standard of 40% renewable energy by 2030.

   The electric grid needs to adapt to serve the needs of modern-day consumers and support the State's renewable energy goals.

HB 1943 addresses this challenge by calling for a grid modernization planning process. Importantly, HB 1943 does not pre-determine the outcome of this process; it only calls for the Commission to develop a grid modernization plan that will support the public interest of maintaining customers' ability to interconnect rooftop solar systems in a timely manner and for a reasonable cost regardless of their location on the electric system.

Sunrun strongly supports this bill. Thank you for the opportunity to provide this testimony.

Sincerely,
Sarah Bertram

THE ALLIANCE FOR SOLAR CHOICE

HOUSE COMMITTEE ON ENERGY & ENVIRONMENTAL PROTECTION

January 30, 2014

RE: HB 1943 relating to the modernization of the Hawaii electric system

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

The Alliance for Solar Choice (TASC) appreciates the opportunity to provide testimony in strong support of HB 1943.

TASC advocates for maintaining successful distributed solar energy policies and markets throughout the United States. Members of TASC represent the majority of the nation's rooftop solar market and include REC Solar, SolarCity, Solar Universe, Sungevity, Sunrun and Verengo Solar. These companies are responsible for over one hundred thousand residential, school, government and commercial solar installations across the country. Several TASC members are active in the Hawaii solar market, where collectively TASC members serve many thousand customers.

The rooftop solar market in Hawaii has been driven by the desire of citizens to assert control over their electric bill. TASC was formed on the belief that everyone should have the right to power their homes rooftop solar. This basic right – though strongly supported by Hawaii residents - is at risk because the utilities have not adapted their power grid or business model to cater to the needs of today's electricity consumers.

The utilities have suggested that the electric grid is "saturated" for rooftop solar, even though nine out of ten homes in Hawaii does not have solar. TASC believes that everyone – not just the first 10% - should have the option of investing in generating their own clean electricity at their home. TASC supports HB 1943 because it acknowledges that this type of consumer choice is in the public interest. Without pre-determining the outcome, HB 1943 calls on the Public Utilities Commission and the utilities to develop a plan for modernizing the electric grid to serve modern-day consumer needs.

Thank you for considering our comments on HB 1943. We appreciate your leadership on this important issue. If you have any questions, please contact Sarah Bertram, Hawaii Policy Chair for The Alliance for Solar Choice at sarahb@sunrun.com or 415-580-6856.

Sincerely,

Anne Smart
Executive Director

The Alliance for Solar Choice
595 Market St, 29th Floor, San Francisco, CA 94105
http://allianceforsolarchoice.com

1/30/2014	**House Committee on Energy and Environmental Protection**	**EEP**
8:30 a.m.	**TESTIMONY IN SUPPORT**	**HB 1943**

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

Hawaii PV Coalition is pleased to submit testimony in **strong support** of HB 1943.

It is indisputable that Hawaii's residents want solar. This makes sense, given that Hawaii continues to have electricity rates that are more than 3 times the national average. Along with energy conservation, "going solar" is the only way for Hawaii residents to get some relief from their sky-high electric bills. Installing solar also allows Hawaii residents to participate in Hawaii's clean energy goals and help reduce the state's dependence on imported fossil fuels.

Unfortunately, many homeowners are now being prevented from installing photovoltaic solar systems as a result of Hawaiian Electric's interconnection policies. These interconnection policies are in turn the result of aging utility infrastructure designed to support fossil-fuel generation rather than renewable energy.

HB 1943 will helps solve this problem by initiating a grid modernization planning process. With a more modern grid, Hawaiian Electric will be able to deliver more stable power, with a higher renewable content to its customers, while at the same time allowing more Hawaii residents to install photovoltaic solar systems. Grid modernization will also allow solar installations to proceed more quickly and without requiring homeowners to pay for elaborate studies or costly grid upgrades.

For these reasons, the Hawaii PV Coalition strongly supports HB 1943 and urge you to pass it as drafted. Thank you for the opportunity to provide this testimony.

Sincerely,

Mark Duda
President, Hawaii PV Coalition

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

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

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HOUSE COMMITTEE ON ENERGY AND ENVIRONMENTAL PROTECTION
Thursday, January 30, 2014 — 8:30 a.m. — Room 325

Testimony in Support HB 1943, Relating to the Modernization of the Hawaii Electric System

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

Thank you for the opportunity to provide testimony in support of HB 1943. RevoluSun is a locally-owned solar company that has sold and installed more than 3,500 residential photovoltaic solar systems in Hawaii. Every day, RevoluSun meets with dozens of Hawaii residents who are interested in helping Hawaii lower its dependence on fossil fuels by purchasing or leasing a solar energy system.

The public's demand for solar in Hawaii is extraordinarily strong. This is largely because Hawaii continues to have electricity rates that are more than 3 times the national average. Along with energy conservation, "going solar" is the only way for Hawaii residents to get some relief from their sky-high electric bills. It also allows Hawaii residents to participate in Hawaii's clean energy goals and help reduce the state's dependence on imported fossil fuels.

Unfortunately, many homeowners are now being prevented from installing photovoltaic solar systems as a result of Hawaiian Electric's interconnection policies. These interconnection policies are in turn the result of aging utility infrastructure designed to support fossil-fuel generation rather than renewable energy.

HB 1943 will helps solve this problem by initiating a grid modernization planning process. With a more modern grid, Hawaiian Electric will be able to deliver more stable power, with a higher renewable content to its customers, while at the same time allowing more Hawaii residents to install photovoltaic solar systems. Grid modernization will also allow solar installations to proceed more quickly and without requiring homeowners to pay for elaborate studies or costly grid upgrades.

For these reasons, we **strongly support** HB 1943 and urge you to pass it as drafted. Thank you for the opportunity to provide this testimony.

Sincerely,

Colin Yost
Principal & General Counsel

The Pacific Resource
PARTNERSHIP

Testimony of Cindy McMillan
The Pacific Resource Partnership

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

HB 1943 - RELATING TO THE MODERNIZATION OF THE HAWAII ELECTRIC SYSTEM
Thursday, January 30, 2014
8:30 AM
Conference Room 325

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

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

PRP **strongly supports** HB 1943, Relating to the Modernization of the Hawaii Electric System, which will require the public utilities commission to adopt rules for improved accessibility to connect to the Hawaii electric system for any individual or business. This measure will also require the commission to initiate a proceeding no later than July 1, 2014, to discuss upgrades to the Hawaii electric system for anticipated growth of customer generation.

Thousands of Hawaii residents have taken a step forward toward clean energy and installed renewable power at their homes and/or businesses. This is great news on a number of fronts: it helps make better use of our natural resources so we can meet our state's energy goals, creates thousands of sustainable jobs for the construction industry, and lowers utility costs for individuals who have installed solar rooftop panels or other renewable energy systems.

However, this progress has bumped up against technical limitations that need to be resolved. Because Hawaii is the first state to reach such high levels of renewable energy installation, we are blazing the trail with regard to renewable interconnection with the grid. And it is a grid that was created long ago when renewable energy was not even contemplated. We also know there are financial challenges to incorporating more renewable energy like solar into the electrical grid.

Both increased renewable energy interconnection and a strong and healthy utility are in the public's best interest. This measure directs the utility and the Public Utilities Commission to resolve the technical and economic issues that limit our state's ability to make the most of our abundant energy resources.

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

In September 2013, PRP conducted a public opinion poll about solar power. The results were emphatic: 96 percent of voters support getting energy from solar power. This poll shows an extremely strong public will to overcome the challenges and forge policies that will reduce our dependence on dirty imported fuels.

We respectfully ask for your support on HB 1943. Thank you for the opportunity to share our views on this important initiative with you.



HOUSE COMMITTEE ON ENERGY & ENVIRONMENTAL PROTECTION
January 30, 2013, 8:30 A.M.
Room 325
(Testimony is 2 pages long)

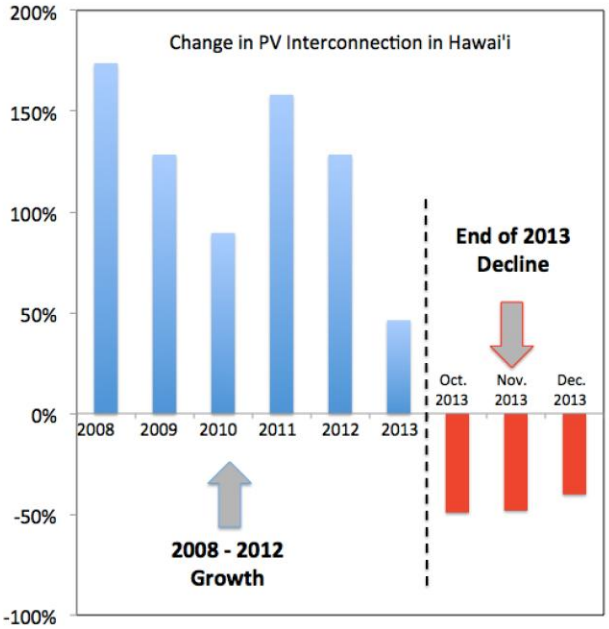
TESTIMONY IN STRONG SUPPORT HB 1943

Aloha Chair Lee, Vice-Chair Thielen, and Committee Members:

Blue Planet Foundation strongly supports a robust electrical grid that can connect clean and affordable energy to Hawai'i's citizens and ratepayers. HB 1943 will help to ensure that everyone can have access to such a grid, in a timely and reasonable manner. The bill directs the Public Utilities Commission (i) to open a proceeding by July 1, 2014 to address whether there are technical and economic barriers to allowing more residential and commercial customers to interconnect to the grid with clean energy, and (ii) to consider whether the establishment of differentiated rates of return for the utility are warranted to encourage the grid upgrades that are needed to allow equal access to the grid, and to discourage investments in the aging grid infrastructure that blocks access to the grid.

1. Modern Grid Interconnection is Urgently Needed.
This solution cannot wait. At the end of 2013, Hawaii saw a sharp drop in the growth of solar interconnection:

- In October 2013, 1187 fewer ratepayers were issued solar building permits compared to October 2012, a drop of 49%.
- In November 2013, 956 fewer ratepayers interconnected, a drop of 48%.
- In December 2013, 785 fewer ratepayers interconnected, a drop of 41%.



% growth in number of PV installations for HECO, MECO, and HELCO grids, compared to previous year, and % decline compared to same month in the previous year for HECO grid. Data from HECO NEM reports and recent news reports.

This worrisome stagnation illustrates a sharp change in direction for Hawai'i. Previously, solar installations were essentially doubling each year – an exponential trend that could drive Hawai'i's clean energy transformation. That growth boosted the economy, it created jobs, and it promoted the use of clean energy

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

that does not rely on imported fossil fuels. The current stagnation, if left unaddressed, will do the opposite. Solar stagnation is already resulting in local layoffs. It will robbing Hawai‘i of potential energy savings. It will prolong our dependence on dirty fossil fuels.

HB 1943 can help to make sure that this grid modernization issue is resolved sooner, rather than later.

2. HB 1943 Can Help Ensure Equality for All Ratepayers.
HB 1943 can also help ensure that all ratepayers are treated with equal access to clean energy. It is no longer true that solar energy is limited to wealthy neighborhoods. By 2012, the introduction of innovative financing made solar increasingly accessible to all Hawaii ratepayers. For example, in 2012 the fastest growing PV neighborhoods were Wai‘anae, Hau‘ula, Waimanalo, La‘ie, and Waialua.

If the growth of rooftop solar is allowed to stagnate, it means that these growing PV neighborhoods will be unequally and unfairly blocked from clean affordable energy. Moreover, some parties are arguing that new solar customers – presumably in these fast growing lower- and middle-income PV neighborhoods – should be singled out to pay the cost of upgrading the grid to make it work with distributed clean energy. Many ratepayers are already in a holding pattern, under the fear that interconnection will cost thousands of dollars and will take many months. This situation, if allowed to remain, is grossly unfair. As the utility evolves into its 21st century business model, all ratepayers need a grid that is upgraded so that it can flexibly accommodate more clean affordable energy. The cost of a 21st century grid should *not* be unfairly apportioned to those customers who are least able to afford it, and who are most in need of the rate relief that can be provided by clean energy sources such as solar.

HB 1943 directs the PUC to revise interconnection procedures to ensure that all ratepayers can interconnect to the grid in a timely manner, for a reasonable cost.

3. HB 1943 Can Help Avoid a Costly and Inefficient Fight for Ratepayers.
Recently in Arizona, a highly public fight between the local utility and solar advocates resulted in millions of dollars wasted on publicity campaigns. After review of the facts, the Arizona PUC found that the cost of solar interconnection could be fairly apportioned by charging a small fee to solar customers based on the size of each solar system. Ultimately, this fee will cost solar households in Arizona roughly $5 per month, to cover the fixed costs of the utility. In comparison, the Arizona utility argued that solar households should pay a grossly higher fee – $50 per month. Hawai‘i’s ratepayers don’t deserve this type of wasteful fight.

HB 1943 directs the PUC to examine how our utility’s rate of return can be structured in way that will align the interests of the utility and the interests of ratepayers, by incentivizing a modern grid that makes clean energy accessible for all ratepayers, rather than incentivizing investments in the expensive and aging fossil fuel-fired grid, which blocks ratepayers from grid interconnection.

Thank you for the opportunity to testify in support of this timely and important solution.

REACH
RENEWABLE ENERGY ACTION COALITION OF HAWAII
1110 University Avenue, Suite 402
Honolulu, Hawaii 96826
Tel: (808) 371-1475
www.REACHawaii.org

Testimony of ERIK KVAM
President of Renewable Energy Action Coalition of Hawaii
e-mail: Kvam@REACHawaii.org

In SUPPORT of HB 1943 RELATING TO
MODERNIZATION OF THE HAWAII ELECTRIC SYSTEM

Before the
HOUSE COMMITTEE ON ENERGY AND ENVIRONMENTAL PROTECTION

January 30, 2014 8:30 a.m.

Good morning, Chair Lee, Vice-Chair Thielen and members of the Committee.

My name is Erik Kvam. I am the President of Renewable Energy Action Coalition of Hawaii (REACH), a trade association whose vision is a Hawaiian energy economy based 100% on renewable sources indigenous to Hawaii.

REACH is in **SUPPORT** of HB1943.

Hawaii's solar power industry is in crisis. Customers are not ordering and solar power installers are laying off workers because the HECO utilities have braked installation of new solar power systems until the utilities decide whether and how to upgrade the utilities' substations to accommodate lots more systems.

How did this happen? This crisis is happening because the utilities seem to have no planning process for systematically evaluating options for achieving 100% renewable energy. The utilities seem to have no process for figuring out what options -- like options to upgrade substations to accommodate lots more solar power systems -- in what amounts in what order will get us to 100% renewable energy at the greatest savings to customers and themselves.

REACH **SUPPORTS** HB1943 because the PUC proceeding required by HB1943 would provide an appropriate forum for conversations with Hawaii's electric utilities about their planning goals and their evaluations of grid modernization options, including options for grid upgrades to accommodate anticipated growth in customer generation.

Thank you for allowing me to testify.

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400 Ala Makani St. #103, Kahului, HI 96732 Tel: (808)871-1030 Fax: (808)873-7825

Testimony of Inter-Island Solar Supply
Before the
House Committee on Energy and Environmental Protection
In Consideration of
HB 1943, Relating to the Modernization of the Hawaii Electrical System

Chair Lee, Vice-Chair Thielen and members of the Committee, my name is Rick Reed and I am the president of Inter-Island Solar Supply. HB 1943 is timely and exceedingly important. We stand in strong support, with comments and recommendations discussed below.

The most important issues for Distributed Generation (DG), or what is often called Rooftop Solar, in Hawaii and elsewhere are: 1) timely grid accessibility, 2) the fair and equitable allocation of costs associated with the technical measures that will accommodate more DG, and 3) the fairness and equity of the NEM proposition for all ratepayers.

It is our position that that the final draft of HB 1943 should require the PUC to simultaneously take on all of these challenging topics. There continues to be a perception that DG is only for rich folks and that those ratepayers that do not or cannot adopt PV will be left holding a very heavy bag containing significantly higher rates. In the new world of creative solar financing, leases, power purchase agreements, and long-term loans have made this long-expressed concern much less credible for the credit worthy.

The State's GEMS program is expressly intended to narrow the gap between those that wish to have DG, but do not qualify for conventional financing. The catch, and this is why all three issues are so closely interrelated, is that without grid access neither GEMS nor a lease, loan or PPA will help folks lower or stabilize their electricity costs going forward. Increasing safe and reliable grid access logically precedes the need to finance a PV system that may never be allowed interconnection.

But safe and reliable interconnection for all comers is not it itself a cost-free proposition. It has the potential to impact customer bills as well as utility financial returns. The difficult question of who should pay for the various costs incurred to move our electrical grids from version 1.0 to one that accommodates any ratepayer that wishes to safely and reliability interconnect is best decided through the regulatory docket process.

There are other questions to consider. For example, what DG benefits inure to all ratepayers when our aging utility infrastructure, especially on Oahu, is significantly upgraded? It is our sense that appropriate, targeted, and timely utility capital expenditure must be encouraged in a manner that allows for much greater DG penetration while mitigating the impact on all ratepayers.

There are some that argue that they receive no direct personal benefit from DG – and that the benefits accrue entirely to those of means, or those that live in single family homes. Not so, given the new non-conventional financing options available and the real possibility of adopting community based solar in the near future. In addition, these individuals have forgotten that the PUC has previously determined in the Energy Efficiency Docket (05-0069) and other proceedings that all ratepayers benefit from our statutory energy efficiency programs. Everyone pays a small monthly Public Benefit Fund surcharge that supports our EEPS goal of achieving 30% of all our energy needs from efficiency measures by 2030. The Commission long ago determined this small incremental charge to be in the broad public interest.

Are the public benefits from NEM and DG really that much different than those received from energy efficiency upgrades? We think not and would expect a vigorous debate on the matters of fairness and equity before the Commission.

Our primary concern is the protracted time frame envisioned in HB 1943. The first legislative briefing in scheduled for 2016. This will be too late to prevent much of the damage to industry and ratepayer alike discussed in the purpose clause. Inter-Island Solar Supply respectfully requests that the legislature ask the Commission to fast track this docket and wrap up their deliberations in no more than nine months.

Thank you for the opportunity to provide these comments.

R&R Solar Supply

808.842.0011 808.847.4938 F

922 Austin Lane Building D Honolulu HI 96817

Before the House Committee on Energy and Environmental Protection
Thursday, January 30, 2014, 8:30 a.m.., room 325
HB 1943: Relating to the Modernization of the Hawaii Electrical System

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

My name is Rolf Christ and I'm the president of R & R Solar Supply.
I'm also a longtime member of the board of the Hawaii Solar Energy Association.

I'm testifying in strong support for this measure.

This bill is legislating and funding what has been long overdue.
We understand that the PUC has a full plate, but funding and outsourcing technical issues should help.

We hope that the Hawaii Solar industry and maybe some inverter manufacturer's technical personal can participate in a technical taskforce to help find solutions for everybody involved, including our electric utility companies.

Other jurisdictions outside of the US have found solution to increase grid saturation and we should invite that expertise to the table.

Thank you for the opportunity to testify

Rolf Christ

President and CEO

HAWAII ENERGY CONNECTION
Sustainable Energy Solutions

Date: January 29, 2014

From: Hawaii Energy Connection

Re: Support for HB 1943 Relating to the modernization of the Hawaii Electric System.

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

I represent Hawaii Energy Connection. We are a Hawaii based photovoltaic installation company that has been in the solar industry since 2007. For the first time in our companies history, we had to reduce our staff and cut back on our local expansion plans. With the abundant sunshine and high utility rates, that is a sad statement from a renewable energy company in Hawaii.

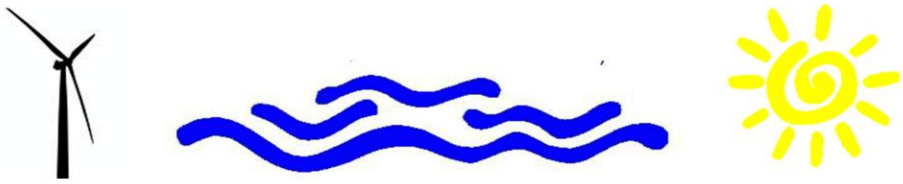
There is a growing number of consumers patiently waiting for utility interconnection approvals and relief from rising monthly utility bills. These consumers are looking to the solar industry and their State Representatives for solutions, but those solutions are quickly being taken our of our control.

The legislature has worked very hard on providing a path to clean and affordable energy as an alternative to the rising utility costs that are imposed on the residences of Hawaii. It is all for nothing if the current grid can not support the State's renewable energy goals.

Hawaii Energy Connection supports HB 1943 relating to the modernization of the Hawaii Electric System.

Mahalo,
Chris DeBone
Managing Partner
Hawaii Energy Connection, LLC

Hawaii Energy Connection, LLC
99-1350 Koaha Place
Aiea, HI 96701
(808) 524-7336



LIFE OF THE LAND

P.O. Box 37158, Honolulu, Hawai`i 96837-0158
Phone: 927-0709; E: henry.lifeoftheland@gmail.com

January 30, 2014

COMMITTEE ON ENERGY & ENVIRONMENTAL PROTECTION
Rep. Chris Lee, Chair
Rep. Cynthia Thielen, Vice Chair

DATE: Thursday, January 30, 2014
TIME: 8:30 A.M.
PLACE: Conference Room 325

Re: Bill 1943 Grid Modernization **SUPPORT**

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

Life of the Land is Hawai`i's own energy, environmental and community action group advocating for the people and `aina for four decades. Our mission is to preserve and protect the life of the land through sound energy and land use policies and to promote open government through research, education, advocacy and, when necessary, litigation.

Hawaii is at the cutting edge of intermittent renewable energy. No other modern grid in the world has such high levels of intermittent wind and solar energy powering the grid.

Rooftop solar energy is popular, has minimal climate, environmental, social and cultural impacts.

It is important that we do not kill the golden goose (the solar industry) during the next few years.

In the old days electricity flowed one-way from the power plant to the customer and ratepayers paid a kilowatt-hour charge multiplied by the number of kilowatt-hours they consumed.

Things are more complex in the new era.

Rooftop solar decreases the need to use the transmission line while increasing the need for spinning reserve.

Net metering (exporting and importing electricity from the grid) uses the grid as a battery.

The costs to the utility are vastly different if the customer can import at any time versus not be able to import during the evening peak.

Time of use rates can be effective at reducing peak usage which can in turn decrease the need for peaking generators and thus cut costs across the board.

The grid needs operational flexibility and efficiency.

So does the pricing. The costs of different components need to be unbundled. The utility can file Requests for Proposals for ancillary services, frequency response and regulation, inertial response, reactive power and voltage control, energy storage, and operating reserves.

By line itemizing different cost components the utility can determine the true costs and benefits of customer sited distributed energy.

The public utilities commission can ensure just and reasonable rates apply to all customer classes.

Section 269-145, Hawaii Revised Statutes, is amended to read as follows:

(b) The procedures established by the commission by rule or order pursuant to subsection (a) shall be revised as necessary to ensure any person, business, or entity can make a safe and reliable interconnection on the Hawaii electric system in a timely manner and ~~for a reasonable cost~~ at just and reasonable interconnection rates regardless of where that person, business, or entity is located on the Hawaii electric system.

Section 269-**143.5**, Hawaii Revised Statutes, is added

Operational Flexibility and Efficiency of Prices. (a) The commission shall require utilities to unbundle costs associated with generation, transmission, distribution, storage and ancillary services. (b) The commission shall establish just and reasonable interconnection rates for customer sited distributed generation only after utilities have unbundled their costs.

Mahalo

Henry Curtis
Executive Director

Testimony on HB 1943
Position: Support
Dr. Michael J DeWeert, Energy and Climate Chair,
Environmental Caucus of the Democratic Party of Hawai'i

The intent of this bill is laudable and visionary: to provide the people of the State of Hawaii with a modern electric-power grid, often called Grid 2.0. Such a system of next-generation transmission and distribution will be able to handle bidirectional energy flows, allowing for distributed generation, such as from photovoltaic panels on building roofs, small wind turbines, and other energy sources. In addition, a modern grid will enable distributed energy storage via fuel cells, batteries of electric cars, pumped hydroelectric power, and other methods. Properly implemented, this combination of capabilities will make the grid more reliable and robust, and hasten our necessary transition to a sustainable fossil-fuel-free energy system. The grid modernization is urgently needed, and should already have been started – it is past time. Thus, we support HR 1943.

The Environmental Caucus does have concerns about the costs implied in the phrase "differentiated authorized rates of return on common equity." These costs should be borne not just by the ratepayers, but by the shareholders as well. The needed investments were foreseen years ago – delay has only increased the expense. In addition, the ratepayers at the lower end of the economic scale should be shielded from burdensome rate increases.

We also urge that intra-island grid improvements be given priority in both funding and urgency over inter-island connections. The new infrastructure required to wheel intermittent power via cable landing sites is similar to what is needed to move distributed-solar island-wide. Accordingly, the implementation of a modern smart electric-power grid should be a precondition before approval of any new "big energy" projects.

Aloha and Mahalo,
Michael J DeWeert, PhD
Energy and Climate Chair,
Environmental Caucus of the Democratic Party of Hawai'i

SUNPOWER

HOUSE COMMITTEE ON ENERGY AND ENVIRONMENTAL PROTECTION
Thursday, January 30, 2014 — 8:30 a.m. — Room 325

Testimony in Support HB 1943, Relating to the Modernization of the Hawaii Electric System

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

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

Thank you for the opportunity to provide **testimony in support of HB 1943**.

The public's demand for solar in Hawaii is extraordinarily strong. This is largely because Hawaii continues to have electricity rates that are more than 3 times the national average. Along with energy conservation, "going solar" is the only way for Hawaii residents to get some relief from their sky-high electric bills. It also allows Hawaii residents to participate in Hawaii's clean energy goals and help reduce the state's dependence on imported fossil fuels.

Unfortunately, many ratepayers are now being prevented from installing photovoltaic solar systems as a result of Hawaiian Electric's interconnection policies. These interconnection policies are in turn the result of aging utility infrastructure designed to support fossil-fuel generation rather than renewable energy.

HB 1943 will help solve this problem by initiating a grid modernization planning process. With a more modern grid, Hawaiian Electric will be able to deliver more stable power, with a higher renewable content to its customers, while at the same time allowing more Hawaii residents to install photovoltaic solar systems. Grid modernization will also allow solar installations to proceed more quickly and without requiring ratepayers to pay for elaborate studies or costly grid upgrades. Equally important is the overarching foundation that grid modernization provides, Hawaiian Electric to maintain safety and reliability as decentralized generation (at any circuit level), moves forward in Hawaii.

For these reasons, we **support** HB 1943 and urge you to pass it as drafted. Thank you for the opportunity to provide this testimony.

Riley Saito
Senior Manager, Hawaii Projects
SunPower Systems, Corporation

My name is Ron Hooson. I own Solar Inspectors Hawaii. I perform independent third party inspections for solar contractors and submit them to the City and County of Honolulu to close their permits.
I hold the highest Electrical Licenses offered in Hawaii and four other states dating back over 40 years including the prior 90% tax credit period during the early 1980s.

I would like to thank HECO for the great job that they do providing us reliable electrical power. How they do this without an inter island transmission cable system is amazing and a real testament to their excellent work.

I have worked with many HECO employees. I like them. I professionally respect them.

I do however wish to address the current time consuming discussion on the capability of the grid to handle 100% Daily Minimum Load. This grid capability has been discussed by the HECO Engineers who testified at the last Senate sub committee meeting. If you remember, at that meeting the HECO Engineers were asked how high circuits were PV loaded currently and the answer they gave was “we have several circuits operating with over 200% DML.”

That answer demonstrates that HECO already has real data on real circuits operating at twice the level that they are banning additional PV from being added.

Germany among others have been operating at twice the 100%DML for years. The data has already been gathered and is readily available.

Absent a true lack of data, absent justification based on the laws of physics, absent demonstrated risks on circuits operating at this very minute at over 200% DML on the HECO grid, a curious person could be left asking: Is this just a red herring being thrown in front of a competing source of clean, local power in the hopes of delaying implementation until the tax credits expire as was successfully done across the country during the early 1980’s when there were 90% tax credits for alternative energy?

Back in the 1980s numbers between 2% and 10% were given by utilities as safety risk thresholds to hold back PV until the tax credits expired.

Googling “recent facts about photovoltaics in Germany” can find one free 80-page report on Germany’s high grid concentrations of PV. That report shows how well grids can handle high concentrations of PV.

http://www.ise.fraunhofer.de/en/publications/veroeffentlichungen-pdf-dateien-en/studien-und-konzeptpapiere/recent-facts-about-photovoltaics-in-germany.pdf

There are many more studies based on real experience available and, HECO already has real time data right here from the circuits that are already operating at over 200%.

I would like to close with two final questions; we are bleeding billions of dollars over seas each year buying oil for electricity. Is sending our locally earned dollars overseas every year for oil the best course of action long term for our ‘ohana? Why does it take months to get approvals when the answers are already known?

Thank you.

Ron Hooson
Solar Inspectors Hawaii
542-6200
License ES-9851

SIERRA CLUB OF HAWAIʻI
MĀLAMA I KA HONUA. Cherish the Earth.

MALAMA I KA HONUA
Cherish the Earth

HOUSE COMMITTEE ON ENERGY & ENVIRONMENTAL PROTECTION

January 30, 2014, 8:30 A.M.
(Testimony is 2 pages long)

TESTIMONY IN SUPPORT OF HB 1943

Aloha Chair Lee and Members of the Committees:

The Sierra Club, Hawaii Chapter, with over 12,000 dues paying members and supporters statewide, ***strongly supports*** HB 1943. This measure prioritizes the development of a grid modernization plan so that residents have the right to choose clean, renewable energy.

I. Addressing Customer Need

Melba Amaral, a Faith Action for Community Equity volunteer, recently wrote a story for the Sierra Club's Hawaii Solar Voice's website.[1] She runs a small day care facility for toddlers. She has an electric bill of about $400 a month. She's fairly good at minimizing her electricity usage. She unplugs her cable box every night. She uses a clothesline.

Her only "luxury" is a single window air conditioner that she uses to make sure her Kalihi house doesn't become too hot for her toddlers. Ms. Amaral could benefit tremendously from rooftop solar. She's doing all of the right things to reduce her electric bill, but no other relief is in sight. And yet, under the current situation, she's denied the opportunity to generate her own electricity and help the state out with its clean energy goals.

This measure would help protect Ms. Amaral's right to choose rooftop solar. As you consider this measure, please consider Ms. Amaral's plight and thousands of other residents that are in a similar situation. Hawaii's electrical rates are currently 2 to 3 times the national average. Average electrical rates have increased by 50% since 2009. Our electrical distribution system should be designed to service all customers, even those that may choose to generate their own electricity, and in a manner that results in a net cost savings for all ratepayers.

[1] http://www.hawaiisolarvoices.org/1/post/2013/11/i-need-solar-on-my-roof-and-heco-off-my-back.html

II. The Need to Integrate More Rooftop Solar

Hawai'i continues to be one of the most fossil fuel dependent states in the nation. Every year, the state imports approximately 45 million barrels of oil. This dependence results in the outflow of the State's financial resources and creates a tenuous reliance on an unsustainable and unstable resource.

Distributed solar is a shining success story in Hawai'i's efforts to adopt clean energy. As reported by DBEDT, solar energy provided 15% of Hawaii's renewable energy generation in 2012 and and 26% of all construction expenditures.[2] That bears repeating. 26% of all construction expenditures or approximately a quarter of all construction jobs created in Hawaii came out of the solar industry. Failing to allow customers to choose rooftop solar puts this growth in serious jeopardy.

Even HECO acknowledges we need to achieve "uniform, timely, and unfettered access for all customers to interconnect on a given circuit."[3]

III. Benefits of a Modern, Efficient Grid

The benefits of transforming from a 19th century oil-based grid, to a modern, efficient grid are numerous. Consider:

- **Reliability and consistency.** Improved power quality resulting in economic and productivity gains.
- **Efficiency.** Effective asset utilization and resource management.
- **Flexibility.** Enables new load management, distributed generation, and demand-response options.
- **Environmentally friendly.** Directly increases the amount of renewable energy and energy efficiency options available, and allows a drastic reduction in fossil fuel consumption.

IV. PUC Has Discretion to Address Broader Technical and Economic Issues

Importantly, this measure does not pre-determine how solar can or should interconnect. It expressly ensures that the PUC has control over reliability and safety issues and allocates resources so that the PUC can develop a grid modernization plan that supports the public interest of allowing customers to interconnect rooftop solar in a timely and reasonable manner.

Mahalo for the opportunity to testify.

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[2] http://energy.hawaii.gov/wp-content/uploads/2011/10/FF_June2013_R2.pdf

[3] 2013 Integrated Resources Planning Report, June 28, 2013, page ES-6. Available online at: http://www.hawaiianelectric.com/vcmcontent/IntegratedResource/IRP/PDF/IRP_2013_Report-Executive-Summary-Transmitta-Letter.pdf

Claude McGee

January 29, 2013

Grid Modernization testimony

Aloha,

I am the Regional Sales Manager for REC Solar here in Hawaii. My whole team of salesmen, office staff, installer, suppliers and customers supports the modernization of the grid so that we can continue being a part of the fight to get Hawaii off of Fossil Fuels(as much as possible) while saving local people money and have jobs. I have been an environmentalist basically all of my life but only in recent years has it been possible to make a living doing it. Those of us in the industry depend on being able to sell solar as a way to support our families. Our customers, on the other hand, just want to save some money.

Everything is expensive in Hawaii, I call it the paradise tax, this place is wonderful but it is really hard for normal people to get by. I talk to people every day who are paying 500, 600, 700 + dollar electric bills, people have second or third jobs just to pay their HECO bills which have gone up around 8% per year for the past 20 years. Being able to go solar gives them the ability to control at least one of their bills. We can't control the cost of real estate, milk or gasoline but solar gives hard working families a chance to control something. People that are waiting for NEM approval are understandably upset, installers and salesman are struggling and there are even people who are installed and cant turn on, meaning they are paying the loan on their system and their HECO bill. I understand the need to modernize the grid but HECO should have been upgrading for the past 20 years. We all knew about the state of Hawaii's goal to get to 40% renewable energy by 2030 so how can HECO say they are only now realizing the need to modernize the grid? HECO needs to do whatever it takes to get the grid modernized at no cost to the customers and let the Solar industry do the necessary job of getting off Hawaii off of fossil fuels and help the citizens of Hawaii from paying 35 cents a kilowatt for their electricity.

Sincerely,

Claude S McGee

RISINGSUN SOLAR+ELECTRIC

HOUSE COMMITTEE ON ENERGY AND ENVIRONMENTAL PROTECTION

Thursday, January 30, 2014 — 8:30 a.m. — Room 325

Testimony in Support HB 1943, Relating to the Modernization of the Hawaii Electric System

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

Rising Sun is a locally-owned solar company that has been installing PV systems on Maui and state-wide for over 10 years. We have grown from a home based business to a company with over 10,000 sqft of office and warehouse space and over 75 full time employees. We installed the 7th grid tied PV system on Maui in 2003 and we have seen the market grow.

For the first number of years we needed to raise customer awareness and PV was more of a dream and a hobby than a meaningful part of Hawaii's Energy Future and a thriving market. However, as the industry grew and electricity costs more than doubled from 16¢/kWh to @38¢/kWh the solar industry and PV customers have been faced with caps and limits, costly studies and delays, and each year these have proven to be false limits based on conservative or false assumptions.

The public's demand and support for solar in Hawaii is almost unanimous. A recent independent study showed support for solar that have never been seen. You can't get as many people to agree that they like ice cream or the beach as there is consensus that solar makes sense for Hawaii. And yet thousands of customers are being told to wait or that they can't interconnect their systems.

HB 1943 will help solve this problem by initiating a grid modernization planning process. With a more modern grid, Hawaiian Electric will be able to deliver more stable power, with a higher renewable content to its customers, while at the same time allowing more Hawaii residents to install photovoltaic solar systems. Grid modernization will also allow solar installations to proceed more quickly and without requiring homeowners to pay for elaborate studies or costly grid upgrades.

All this is not to say that we haven't achieved a great feat in renewable energy integration! Hawaii is a leader in the country and worldwide and HB 1943 is the next necessary step to continue to lead as well as meet the Hawaii's energy goals.

We strongly support HB 1943 and urge you to pass it as drafted. Thank you for the opportunity to provide this testimony.

Sincerely,

Bradley Albert

810 Kokomo Road Suite 160 Haiku HI 96708

P 808 575 2202 ~ F 808 575 9878

www.risingsunsolar.com

HB1943
Submitted on: 1/29/2014
Testimony for EEP on Jan 30, 2014 08:30AM in Conference Room 325

Submitted By	Organization	Testifier Position	Present at Hearing
sherrian witt	Individual	SupportNo	

Comments: The People of Hawaii have the right to decide on solar without interference of the HELCO

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My family and I are currently affected by HECO's moratorium on new PV installations. I find it to be ethically wrong that a for-profit entity is able to stall, or eventually assess people because these installations will ultimately affect its bottom line. The solar industry has been around for a very long time, so there really is no excuse why this hasn't been considered many years ago. We need more advocates that can continue to push and make sure that solar can remain affordable.

At this point, I'm quite concerned that HECO will keep on stalling, and eventually assess such a high fee to install solar, that I will no longer be able to afford it. The tax credits are set to expire in 2016. That's not very far away.

Our rates have been steadily climbing for what? Has there been any accountability to the public for all that money? Sounds like there wasn't any good long term planning with solar in mind.

Sincerely,
Deborah Pang

HB1943
Submitted on: 1/29/2014
Testimony for EEP on Jan 30, 2014 08:30AM in Conference Room 325

Submitted By	Organization	Testifier Position	Present at Hearing
janice palma-glenie	Individual	SupportNo	

Comments: Aloha, There can be no more delay to supporting and implementing ways to release Hawai`i's residents from dependence upon fossil fuels or any other dangerous power technology. allowing individuals to power their homes and lives is what freedom and independence should mean to our state and our country. please help ensure the Public Utilities Commission has the resources to ensure a more modern, efficient grid. mahalo.

HB1943
Submitted on: 1/29/2014
Testimony for EEP on Jan 30, 2014 08:30AM in Conference Room 325

Submitted By	Organization	Testifier Position	Present at Hearing
Barbara Borgnino	Individual	SupportNo	

Comments: We need to encourage solar power in Hawaii.

HB1943
Submitted on: 1/29/2014
Testimony for EEP on Jan 30, 2014 08:30AM in Conference Room 325

Submitted By	Organization	Testifier Position	Present at Hearing
B.A. McClintock	Individual	Support	No

Comments: This IS America! Why do we have to keep begging for our rights? Please support the bill!

HB1943
Submitted on: 1/29/2014
Testimony for EEP on Jan 30, 2014 08:30AM in Conference Room 325

Submitted By	Organization	Testifier Position	Present at Hearing
Dana G. Moss	Individual	SupportNo	

Comments: Our State has about the highest cost of electricity in the nation. We need to reduce our consumption of fossil fuel to lower our carbon foot print.To do our part of lowering Global warming. Not to take advantage of every single roof top in Hawaii is just plain stupid and greedy by HELCO. Please don't listen to there pitiful excuses. By right there should be tariffs. All power suppliers of the grid should be paid for all power produced and not just net metering. because it zeros out in Dec. And Jan everyone has to pay a bill for power. Regardless of all the extra power they may have produced up to just the last month. What a scam!!! And here is HELCO making cry baby again!

HB1943
Submitted on: 1/29/2014
Testimony for EEP on Jan 30, 2014 08:30AM in Conference Room 325

Submitted By	Organization	Testifier Position	Present at Hearing
Alfredo Macaibay	Individual	SupportNo	

Comments: I moved to Hawaii in 1988 from the Philippines. I've worked hard to build my credit and provide for my family. Our electric bills have been the hardest obligation to meet. Last August, our electric bill was over $400 and we decided to invest in a solar system, because we couldn't afford to keep paying our electric bills. I live on a fixed pension income. We had to borrow money to afford the installation. We were all set to install, but we got a letter from HECO in early January telling us we aren't allowed to move forward and they'll review until March. Our last two electricity bills totaled more than $800. I support this bill because rooftop solar is the best option in Hawaii. We need to be able to install rooftop solar. We have been very frustrated with this situation and it is causing a lot of hardship for our family. It has been almost four months since we began and my money is tied up. Big businesses can get solar, but the little guy like me is being ignored. The legislature needs to protect citizens from situations like this which are beyond our control. Please pass this bill to make sure this doesn't happen again and again.

HB1943
Submitted on: 1/29/2014
Testimony for EEP on Jan 30, 2014 08:30AM in Conference Room 325

Submitted By	Organization	Testifier Position	Present at Hearing
Shannon Rudolph	Individual	SupportNo	

Comments: SUPPORT. Way past time for action. Hawai'i SHOULD be the absolute leader in solar energy. Dinosaur systems gotta go. Mahalo!

HB1943
Submitted on: 1/29/2014
Testimony for EEP on Jan 30, 2014 08:30AM in Conference Room 325

Submitted By	Organization	Testifier Position	Present at Hearing
Barbara Barry	Individual	SupportNo	

Comments: Dear Council Members, Why do you think it's ok for residents to pay so much for their electricity when they can have solar panels on their roofs? We have an electric car and we want to use the sunshine to power it. We believe that Hawaii is Sacred and that we should all take care of the 'aina. The sun is a gift that shines most every day. Making so much money on electricity from homeowners and business and restricting them from having solar and feeding it back into the grid is counterproductive when trying to get off of COAL and OIL Please do not be greedy and keep the people from having affordable energy. It is good for everything but the utility company's bank account. I support giving people the right to solar. Since 2009, the average residential rate have gone up by more than 50%. People should have the ability to pursue cleaner and cheaper options. Solar has been a major, sustainable economic engine for Hawaii. As of 2012, it accounted for 28% of all construction expenditures in the state. HECO has repeatedly failed to demonstrate a plan for growth of innovative technologies. The PUC needs to chart a way forward on grid modernization. Provide your own perspective: why do you care about rooftop solar? Respectfully yours, Barbara Barry, part time resident

April, 2011

With the full backing of higher-ups at the US Dept. of Energy as well as others close to President Obama, Anthony Folsom will meet with Gov. Neil Abercrombie to "put pressure" on Hawaiian Electric Industries to loosen up the process for bigger solar projects and to raise the ceiling from 15 percent clean energy currently allowed to be fed back to the electric grid.

Advanced solar technology like concentrator photovoltaic (CPV) and high performance satellite solar cells married with mirrored optical engineering could stave off Hawaii's energy crisis relatively quickly - within a decade. Thus balancing long-term sustainability with the ever increasing demand for energy statewide. But, this 15% limit on clean power in Hawaii hampers such progress and appears a direct conflict with the State's mandate to generate 40 percent clean energy by 2030.

In an exclusive radio interview Tuesday, April 26 with government consultant, Anthony Folsom, he suggests the real problem in adopting high performance solar technology for generating more clean energy in Hawaii is the utility provider itself. Following is Folsom's statements...

The largest barrier to installing commercial solar systems in Hawaii is the overly stringent interconnection process. Because of HELCO’s feeder cap requirements, it is difficult to identify locations that have demand, solar resource, and enough feeder capacity left for anyone to be able to site a system.

We understand that HELCO’s feeder percentage caps are in place as insurance means to allow them to be able to provide safe and consistent power to the residence of Hawaii. It is necessary to have such checks in place, and we do not dispute that the goal of safe and consistent power is important.

We believe it is possible for HELCO to achieve these goals, without causing the uncertainty and delays that are prevalent now.

The way that HELCO assesses the effect of distributed energy on the grid is fundamentally flawed. They assert that adding distributed generation essentially doubles the use of their transmission system, and could possibly overload some grid feeders causing failures that would affect multiple customers. We believe this premise to be false because if you have a building with a 1000 amp service before distributed generation is installed, the feeders and service for that location are already sized to carry 1000 amps. Adding a solar system to that site that has the capability to generate 1000 amps will never subject the feeders or transmission system to 2000 amps. This is because only 2 electrical scenarios are possible.

The first scenario occurs during the evenings, or periods of bad weather. Under this scenario the site will continue to draw up to 1000 amps from HELCO’s system, just as it always had. Under this scenario a site and HELCO’s system behave as if the solar is not present because if there is no sun, the system does not produce power. The system does not consume power when there is no sun, so the site will never require more than 1000 amps.

The second scenario would be at solar noon on a clear cool day. At that point a solar system can get close to generating the 1000 amps it was designed to. That electricity the system is generating will go to serve any load demands on the site before it enters HELCO's system. If the system is producing more power than there is onsite demand for, the extra power will move back into HELCO's system. If the site is using no power at this point, and the solar system is producing it's maximum 1000 amps, that 1000 would be fed back into HELCO's system.

Under the first worse case scenario, there would be 1000 amps on HELCO's feeders. Under the second best case scenario a system would be feeding 1000 amps back into HELCO's feeders. At no point is it possible for a 1000 amp site to simultaneously draw and feed 1000 amps from/to HELCO's system. If a system is feeding HELCO 1000 amps, and a demand of 200 amps of load occurs at the site, all that happens is the system supplies that 200 amps to the load, and reduces the amount it is feeding to HELCO to 800 amps. It does not cause 1200 amps of power to run through HELCO's feeders.

Net-Metered PV systems should be primarily viewed as conservation systems by any utility, instead of generation systems.

There are other smaller issues that can occur with any distributed generation. Inductance on transformers, sharp peaks and dips, and the high variability of distributed generation are other concerns typically stated by HELCO. While there is some impact to the grid and it's management because of these issues, these impacts are minimal and already accounted for in HELCO's system.

The electrical profile of a site with large distributed energy production is virtually identical to a manufacturer facility that is constantly starting and stopping machinery that draws large loads. HELCO's system is able to supply large variable loads.

HELCO has used these falsely perceived risk to limit the quantity and location of distributed energy systems in their territory. They have implemented mandatory interconnection studies for large distributed energy systems. These studies take a very long time to complete, and are extremely expensive.

We recently verified that a commercial solar company was told by HELCO that if they wanted to install a system of over 30KW at a site, that they would have to wait a minimum of 6 months for a study. The amount for this study was quoted at a minimum of $30,000. They were also told that after the study was complete that there would be no guarantee that their interconnection application would be approved.

They responded with a request to pay for and have the study completed by an independent HELCO approved engineering firm. Their intention was to be able to provide the information HELCO was seeking in a timelier manner, and after soliciting proposals from the engineering firms found they could have the same study done for a fraction of the cost HELCO was asking for.

I believe the following solutions would be reasonable to consider:

· Removing HELCO's 15% feeder cap.

· In the event that the cap cannot be removed, the cap should be raised to 50%.

· HELCO should not be able to demand mandatory studies on systems in their service territory for systems under 150KW.

· HELCO should not be able to demand an interconnection study without a clearly defined site specific cause.

· In the event a study is required, HELCO should not have a monopoly over the study process. A list of engineering firms should be established for those that wish to have an interconnection study done independently, and these independent studies should be accepted by HELCO.

· There should be a maximum allowable cap on the amounts of money HELCO can charge for studies they perform.

· There should be a minimum amount of time of approximately 8 weeks for HELCO to complete interconnection studies.

I believe greater transparency from HELCO and, a more thorough analysis of these issues would help The State of Hawaii achieve its environmental and energy goals. A lot of good green jobs can be created in Hawaii if these suggestions are considered.

Kind Regards, Anthony Folsom

Editor's note: to clarify, Folsom's intentions... "***the intended meeting with the Governor is to see what can be done to change the current limits on solar generation. Yes, there is a lot of pressure, but I'm not here to force anyone to do anything. I'll research and report back to Washington D.C.***"

HB1943
Submitted on: 1/30/2014
Testimony for EEP on Jan 30, 2014 08:30AM in Conference Room 325

Submitted By	Organization	Testifier Position	Present at Hearing
Benjamin Marantz	Individual	SupportNo	

Comments: I support giving people the right to solar. Since 2009, the average residential rate have gone up by more than 50%. People should have the ability to pursue cleaner and cheaper options. Solar has been a major, sustainable economic engine for Hawaii. As of 2012, it accounted for 28% of all construction expenditures in the state. HECO has repeatedly failed to demonstrate a plan for growth of innovative technologies. The PUC needs to chart a way forward on grid modernization. Provide your own perspective: why do you care about rooftop solar?

HB1943
Submitted on: 1/29/2014
Testimony for EEP on Jan 30, 2014 08:30AM in Conference Room 325

Submitted By	Organization	Testifier Position	Present at Hearing
Cynthia Cantero	Individual	SupportNo	

Comments: My name is Cynthia Cantero and I live in Ewa Beach. I'm a customer of the utility and a customer of the solar industry. I have to live with the repercussions of HECOs negligence every day and I want to make it clear what the consequences of inaction are. This isn't just a policy discussion. People's lives are hanging in the balance. My life is hanging in the balance, and I want you to understand that. I first looked into installing solar in June of last year. I interviewed five companies. I sat them down and I said I need you to guarantee me that this will be an easy, stress free process. I have five kids, I live on a single income and I've been battling cancer since 1998. I was due to start a treatment for complications from my cancer, but it depends on having a stress free environment. I wanted to install solar so that I could give a measure of security to my kids. I took out a loan and I signed the contract in August. HECO came out and changed our meter and told me I was ok to go ahead. Two or three weeks later I got a letter in the mail telling me that the grid was too saturated and I couldn't move forward with the installation. I don't understand why they didn't see this coming earlier? I can't give that loan back. My loan payments are $480 a month and I'm still paying my electric bill. I used to pay over $500 a month, now it's down to $300 or $400 because I've stopped using air conditioning. Thank God it's been cool lately, but I don't know what I'll do when the temperature rises again. Because of the medication I'm on, my condition gets worse when I get hot. But besides what I'm going through personally, what angers me the most is the impact this is having on my family. The one thing I've always promised my kids is that I would give them an opportunity to get an education. My son has never worked more than 20 hours a week while he was in school. But this semester, I had to ask him to cut a class, and double his hours, because we need the extra income and if this doesn't get resolved, we will be facing foreclosure. The longer that I wait to go on the treatment, the less chance I have of beating it. Every day that this doesn't get resolved might mean one less day I have to spend with my family. I tried to do everything right. I did my homework. I didn't rush into anything. I had no reason to think that I would be stuck in this nightmare. And because you didn't do your job, I have to live with the consequences and I want you to live with those consequences too. Yesterday, I didn't see a light at the end of the tunnel. Today, if this bill passes, that will be my light at the end of the tunnel. We can't go back, we can't fix all the mistakes that were made. But we need a solution now. I need a solution. My family needs a solution and my life depends on it.

HB1943
Submitted on: 1/29/2014
Testimony for EEP on Jan 30, 2014 08:30AM in Conference Room 325

Submitted By	Organization	Testifier Position	Present at Hearing
Avi Okin	Individual	SupportNo	

Comments: It is time to stop utilities, which have a regulated monopoly in our state, for preventing our citizens from installing solar based on the pretext that the grid cannot handle any more home solar connections. We should be promoting renewable resources over profit at any costs.

HB1943
Submitted on: 1/29/2014
Testimony for EEP on Jan 30, 2014 08:30AM in Conference Room 325

Submitted By	Organization	Testifier Position	Present at Hearing
Randyl Rupar	Individual	Comments Only	No

Comments: I support giving people the right to solar. Since 2009, the average residential rate have gone up by more than 50%. People should have the ability to pursue cleaner and cheaper options. Solar has been a major, sustainable economic engine for Hawaii. As of 2012, it accounted for 28% of all construction expenditures in the state. HECO has repeatedly failed to demonstrate a plan for growth of innovative technologies. The PUC needs to chart a way forward on grid modernization. Rooftop solar is a safe and affordable option to high priced oil generated power.

HB1943
Submitted on: 1/30/2014
Testimony for EEP on Jan 30, 2014 08:30AM in Conference Room 325

Submitted By	Organization	Testifier Position	Present at Hearing
Evern Williams	Individual	Comments Only	No

Comments: My family is looking forward to installing a photovoltaic system as soon as we quality for a HELOC loan. It would be upsetting to us if HECO does not allow us on the grid - because of poor planning on their part. Our legislators have a responsibility to make sure no homeowner has to be turned down. More important, Hawaii needs to get away from fossil fuel. Please support this bill and every effort for clean energy that comes up.

HB1943
Submitted on: 1/29/2014
Testimony for EEP on Jan 30, 2014 08:30AM in Conference Room 325

Submitted By	Organization	Testifier Position	Present at Hearing
Cruz Romero	Hi-Power Solar	SupportYes	

Comments: The benefits of being apart of a local clean energy industry have been to help local people afford to live in Hawaii. Like myself the people of Hawaii have been paying car payments, mortgages, rent, monthly groceries, monthly gas bills that matches HECO's bills every month. Never taking a break on raising rates or lowering them. If HECO wants to slow the industry down then fine but don't slow the local contractors who bleed, sweat and bust their butts everyday trying to follow the rules. The very people who hire local people and stimulate money in the economy. Why not slow down the mainland investors who keep on taking our tax credits from the state and putting it in their own pockets. The same people who keep raising the bar to install PV and never following the rules. Allow local people to benefit and put solar on their roof tops not investors taking land to put Mega Watts of projects in which local people will probably never benefit. The state always talks about supporting the local businesses and the local people. Why not live up to those words. My father has been in solar all my life I've watched him bust his butt everyday to provide for my family in the solar industry. Myself being a second generation Solar Consultant I grow unsure of what our business will be. Fortunately for us my father saw this happen almost 27 years ago in the year I was born. He always said he knew this day was coming. I didn't want to believe him. Heck most of our family left our full time jobs to help grow this into a successful family business. Right now we have also been fortunate to keep all our workers. We continue to get by but for how long? I know that some other companies had to fire 20% of their staff because our lively hood had came to an almost dead stop. Our friends and families are back on the streets with no jobs. HECO has put a stopper to all of our local solar companies and now the leasing companies aka mainland money is thriving because they have unlimited access to money. Money that's not working for the state and money that we will probably never see again. So what am I worried about you may ask? Well I'm worried about my family and the families of my employees and the families of my fellow Solar men and women. I want to be able to provide for our generation and the future generations to come. To be able to teach my kids about my craft and to be the best at what we do which is providing clean and reliable energy for our keiki's future. All we are asking HECO is to help us to have steady growth in rooftop solar. Create a fair market, stick to their word and allow a level playing field for all the local people and the local solar companies. So that we all can work together and thrive in this industry.

HB1943
Submitted on: 1/30/2014
Testimony for EEP on Jan 30, 2014 08:30AM in Conference Room 325

Submitted By	Organization	Testifier Position	Present at Hearing
Benjamin Marantz	Individual	SupportNo	

Comments: I support giving people the right to solar. Since 2009, the average residential rate have gone up by more than 50%. People should have the ability to pursue cleaner and cheaper options. Solar has been a major, sustainable economic engine for Hawaii. As of 2012, it accounted for 28% of all construction expenditures in the state. HECO has repeatedly failed to demonstrate a plan for growth of innovative technologies. The PUC needs to chart a way forward on grid modernization. Provide your own perspective: why do you care about rooftop solar?

HB1943
Submitted on: 1/30/2014
Testimony for EEP on Jan 30, 2014 08:30AM in Conference Room 325

Submitted By	Organization	Testifier Position	Present at Hearing
Doug Phillips	Individual	SupportNo	

Comments:

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HB1943
Submitted on: 1/29/2014
Testimony for EEP on Jan 30, 2014 08:30AM in Conference Room 325

Submitted By	Organization	Testifier Position	Present at Hearing
Brad Parsons	Individual	SupportNo	

Comments:

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House Committee on Energy & Environmental Protection
Testimony in support for House Bill 1943

Testimony of Alex Tiller, Sunetric CEO
Thursday, January 30, 2014, 8:30 a.m., Rm 325

Chair Lee, Vice Chair Thielen, and members of the committee:

Sunetric is a Hawaii based company that designs and installs solar systems for residential and commercial clients. Our company has over 100 employees located on Oahu, Maui and Hawaii Island, although we do solar work on all of Hawaii's islands. We are grateful to the Legislature for the support that we've received in the past and look forward to a continued productive relationship in which our industry works to achieve the state's energy and economic security goals, while also providing meaningful work for ourselves and our employees.

Sunetric **supports** House Bill 1943, which directs the public utilities commission to open a proceeding by July 1, 2014 to address the technical and economic barriers of interconnection for residential and commercial customers in a timely manner and at a reasonable cost. The same commission proceeding shall consider whether the establishment of differentiated authorized rates of return on common equity are warranted to encourage utility investments in advanced grid modernization.

House Bill 1943 reinforces the State of Hawaii's commitment to The Hawaii Clean Energy Initiative's mandated goal that Hawaii must use 40% clean energy from locally generated renewable sources by 2030. Today we are facing unprecedented challenges in moving forward with these goals as our existing grid infrastructure has been proven inadequate for both residential and commercial customers to install. This is not a new challenge, however, after the utility's announcement of new interconnection rules on September 6, 2013 the solar industry has seen a significant slowdown that has resulted in the loss of hundreds of green energy jobs.

The utility sites safety concerns as the main reason for these new rules. We agree that safety is never to be taken lightly, but safety is not the real issue here. We believe that the utility's failure to adequately plan for grid studies and upgrades is. The good news is that it is not too late, and we support the Legislature's belief that utility planning and construction of upgrades to the electrical system, including the use of advanced grid modernization technology such as energy storage, to accommodate anticipated growth in customer generation could resolve technical barriers in advance of the interconnection procedures being applied. Such proactive planning could ensure that all Hawaii residents are able to interconnect to the system in a timely manner and at a reasonable cost.

Thank you for the opportunity to submit testimony on this measure.

Sincerely,

Alexander Tiller, CEO
Sunetric

NEIL ABERCROMBIE
GOVERNOR

RICHARD C. LIM
DIRECTOR

MARY ALICE EVANS
DEPUTY DIRECTOR

DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT & TOURISM

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

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

Statement of
RICHARD C. LIM
Director
Department of Business, Economic Development, and Tourism
Before the
HOUSE COMMITTEE ON ENERGY & ENVIRONMENTAL PROTECTION

Thursday, January 30, 2014
8:30 a.m.
State Capitol, Conference Room 325
in consideration of

HB 1943
RELATING TO THE MODERNIZATION OF THE HAWAII ELECTRIC SYSTEM.

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

The Department of Business, Economic Development, and Tourism (DBEDT) respectfully offers comments on HB 1943 which requires the Public Utilities Commission (PUC) to establish procedures to ensure any person, business, or entity can make a safe and reliable interconnection to the grid in a timely manner and for reasonable cost regardless of where that entity is located on the grid; requires the PUC to open a new docket; and appropriates general funds to the PUC to conduct the docket.

Through its established energy policy directives, DBEDT supports a diverse portfolio of renewable resources and integrated and modernized grids, all achieved through balancing technical, economic, environmental, and cultural considerations. DBEDT supports further grid analysis and exploring innovative measures to remove barriers to renewable penetration in the pursuit of a balanced, market-driven, cost-effective energy portfolio that meets and potentially exceeds Hawaii's aggressive clean energy mandates.

While DBEDT supports increased access to the grid for renewable generation projects, including a variety such as utility-scale, commercial-scale, and customer-owned generation projects, including solar photovoltaic, interconnection of energy generation projects constitute a transaction in the energy marketplace which is essentially a regulatory matter. As such, DBEDT respectfully defers to the PUC on the regulatory matters contained in this bill, particularly given its considerable recent attention and activity to address the matters raised by this measure.

Thank you for the opportunity to provide comments on HB 1943.