



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

NEIL ABERCROMBIE
GOVERNOR

RICHARD C. LIM
DIRECTOR

MARY ALICE EVANS
DEPUTY DIRECTOR

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

Tuesday, March 11, 2014
8:30 a.m.

State Capitol, Conference Room 325

in consideration of
SB 2656, SD2

RELATING TO THE MODERNIZATION OF THE HAWAII ELECTRIC SYSTEM.

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

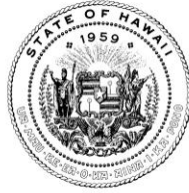
The Department of Business, Economic Development, and Tourism (DBEDT) respectfully offers comments on SB 2656, SD2, which requires the Public Utilities Commission (PUC) to initiate a proceeding to address the technical, policy, and economic issues associated with the modernization of Hawaii's electricity grids; directs the Division of Consumer Advocacy to represent the interests of all consumers in the course of the proceeding; and appropriates general funds to the PUC and Division of Consumer Advocacy for the purposes of effectuating this measure.

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. Because of the dynamic nature of the energy ecosystem and the potential for increased solutions for energy supply, transmission, and distribution, DBEDT cautions against being overly prescriptive in legislation, in order to 1) provide adequate flexibility and opportunity for an expeditious and effective regulatory proceeding to enable a solutions-driven approach by interested stakeholders to address the technical, policy,

and economic issues associated with grid modernization and 2) ensure that potential solutions, such as tariffs and rules, that may advance grid modernization and further enable Hawaii to achieve its clean energy mandates are not inhibited or obfuscated by any such legislation or regulatory proceeding.

DBEDT respectfully defers to the PUC and Division of Consumer Advocacy on the regulatory aspects contained in this bill and necessary resources required to effectuate this measure.

Thank you for the opportunity to provide comments on SB 2656, SD2.



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 AND ENVIRONMENTAL PROTECTION

THE TWENTY-SEVENTH LEGISLATURE
REGULAR SESSION OF 2014

TUESDAY, MARCH 11, 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

SENATE BILL NO. 2656, SD2 - RELATING TO THE MODERNIZATION
OF THE HAWAII ELECTRIC SYSTEM

DESCRIPTION:

This measure proposes to require the Public Utilities Commission (Commission) to initiate a proceeding no later than July 1, 2014, to address the technical, policy, and economic issues associated with the modernization of Hawaii's electricity grids; requires the Division of Consumer Advocacy to represent the interests of all consumers at the proceeding; and appropriates funds to the Commission and the Division of Consumer Advocacy, with an effective date of July 1, 2050.

POSITION:

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

Senate Bill No. 2656, SD2
House Committee on Energy and Environmental Protection
Tuesday, March 11, 2014, 8:30 a.m.
Page 2

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 understands that electricity customers want to be able to choose between self-generation (rooftop solar) and utility-provided electricity. Those customers who have the financial ability to self-generate still represent a minority of customers. The vast majority of electricity customers will not be able to self-generate due to economic or physical (high-rise condominiums, shaded rooftops, etc.) constraints. For those customers who cannot self-generate, low-cost utility scale renewable energy projects present the best option for them to be able to lower their electricity bills. Unfortunately, greater amounts of distributed generation on the grid mean less utility scaled projects. The study mandated by this legislation will address these difficult policy issues.

The Consumer Advocate anticipates significant costs associated with its participation in this study. It is likely that the Consumer Advocate will retain a number of mainland consultants in the fields of energy economics, electricity generation and production simulation, transmission & distribution, utility ratemaking, solar photovoltaic systems/inverters, and smart grids.

Thank you for this opportunity to testify.

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

MARCH 11, 2014
8:30 a.m.

MEASURE: S.B. No. 2656, S.D. 2

TITLE: Relating to the Modernization of the Hawaii Electric System

Chair Lee and Members of the Committee:

DESCRIPTION:

S.B. No. 2656, S.D. 2 requires the Public Utilities Commission (“Commission”) to “address the technical, policy, and economic issues associated with the modernization of Hawaii’s electricity grid” via a proceeding commenced by the Commission by July 1, 2014 (“Proceeding”). This measure requires the Proceeding be used to address a list of specific grid modernization-focused issues, including methods for ensuring distributed generation receive grid access on non-discriminatory terms and with “fair and reasonable” rates, and ways to expand customer options that will enable them to better manage their energy usage. The Commission’s Proceeding may move according to one or more procedural timelines, as determined by the Commission, and the Commission must submit a report to the Legislature of its findings and recommendations prior to the Regular Session of 2016. In addition, this measure contains various provisions supporting the Commission and the Consumer Advocate in acquiring the necessary resources to properly conduct the Proceeding.

POSITION:

The Commission supports the Senate Draft 1 version of this measure with additional amendments, and a proposed House Draft 1 with suggested amendments is submitted with this testimony for the Committee’s consideration. The Commission would also like to offer the following comments for the Committee’s consideration.

COMMENTS:

The Commission prefers the language in the Senate Draft 1 version. The Commission believes that language contained in Senate Draft 1 requiring the Commission to ensure access and rates for distributed generation “through applicable rules, orders, and tariffs” is necessary as these are the standard regulatory vehicles for decisions by the Commission or for action and implementation by the regulated utility. In addition, the Senate Draft 1 contains appropriations that would allocate resources for the Commission to carry out and the Consumer Advocate to participate in the Proceeding. However, the appropriation source for the Proceeding, as noted in Sections 2 and 3 of this measure, is correct and should be the Public Utilities Commission Special Fund, not the general revenues of the State.

Further, the working group facilitated by the Senate Committee on Energy & Environment continues to discuss and collaborate on suggested revisions to this measure. The Commission continues to participate in this effort and is hopeful that the working group members will come to agreement on recommended language to offer to the Legislature in the near term. The Commission believes that an additional principle developed in the course of the working group process dealing with grid reliability and safety would strengthen and guide the Proceeding. The Commission asks the Committee to consider adding the following language as a fifth principle to the existing list under section 1, and to read as follows:

- (5) Maintain or enhance grid reliability and safety through modernization.

In lieu of any final recommendation being provided to this Committee by the stakeholder working group in time for decision making, the Commission asks that this measure be amended to include the preferred Senate Draft 1 language, as well as the additional principle on maintaining and enhancing grid reliability and safety. The Commission has attached a proposed House Draft 1 that incorporates the suggestions described above for the Committee's consideration.

Thank you for the opportunity to testify on this measure.

S.B. NO. 2656, S.D. 2
[Proposed H.D. 1]

A BILL FOR AN ACT

RELATING TO THE MODERNIZATION OF THE HAWAII ELECTRIC SYSTEM.

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

1 SECTION 1. (a) The public utilities commission shall
2 commence a proceeding by July 1, 2014, to address the technical,
3 policy, and economic issues associated with the modernization of
4 Hawaii's electricity grid and shall take into consideration the
5 following:

6 (1) Development of a diverse portfolio of renewable energy
7 resources;

8 (2) Expanded options for customers to manage their energy
9 use;

10 (3) The manner in which distributed generation shall be
11 allowed access to grid interconnection without
12 discriminatory terms, with fair and reasonable rates;

13 (4) Providing fair payment for grid services provided to
14 customers and fair compensation to customers for services
15 provided to the grid by distributed generation; and

16 (5) Maintain or enhance grid reliability and safety through
17 modernization.

S.B. NO. 2656, S.D. 2

[Proposed H.D. 1]

1 The commission shall ensure such access and rates through
2 applicable rules, orders, and tariffs. The proceeding required
3 under this subsection may encompass one or more procedural
4 timelines, as determined necessary and appropriate by the public
5 utilities commission.

6 (b) The public utilities commission shall submit a report
7 of its findings and recommendations to the legislature no later
8 than twenty days prior to the convening of the regular session
9 of 2016.

10 (c) The public utilities commission and the division of
11 consumer advocacy within the department of commerce and consumer
12 affairs shall be exempt from section 103D-304, Hawaii Revised
13 Statutes, in its procurement of any professional services needed
14 to conduct the proceeding.

15 SECTION 2. There is appropriated out of the public
16 utilities commission special fund the sum of \$750,000 or so much
17 thereof as may be necessary for fiscal year 2014-2015 for the
18 public utilities commission to conduct a proceeding and to draft
19 and submit the report pursuant to section 1 of this Act.

20 The sum appropriated shall be expended by the public
21 utilities commission for the purposes of this Act.

S.B. NO. 2656, S.D. 2
[Proposed H.D. 1]

1 SECTION 3. There is appropriated out of the public
2 utilities commission special fund the sum of \$750,000 or so much
3 thereof as may be necessary for fiscal year 2014-2015 for the
4 division of consumer advocacy within the department of commerce
5 and consumer affairs to represent the interests of all consumers
6 in accordance with section 269-51, Hawaii Revised Statutes, in
7 the course of the proceeding pursuant to section 1 of this Act.

8 The sum appropriated shall be expended by the division of
9 consumer advocacy within the department of commerce and consumer
10 affairs for the purposes of this Act.

11 SECTION 4. This Act shall take effect on July 1, 2050.

S.B. NO. 2656, S.D. 2

[Proposed H.D. 1]

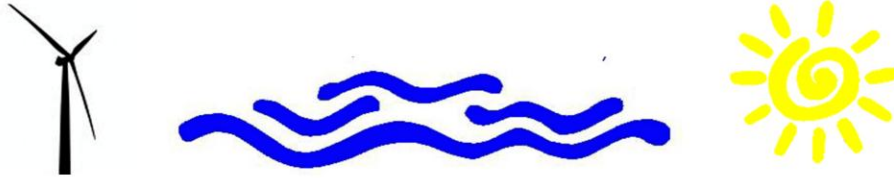
Report Title:

Grid Modernization; Hawaii Electric System; Public Utilities Commission; Division of Consumer Advocacy; Appropriation

Description:

Requires the public utilities commission to initiate a proceeding no later than July 1, 2014, to address the technical, policy, and economic issues associated with the modernization of Hawaii's electricity grids. Requires the division of consumer advocacy to represent the interests of all consumers at the proceeding. Appropriates funds to the commission and division of consumer advocacy. Takes effect 07/01/2050. (PROPOSED HD1)

The summary description of legislation appearing on this page is for informational purposes only and is not legislation or evidence of legislative intent.



LIFE OF THE LAND

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

COMMITTEE ON ENERGY & ENVIRONMENTAL PROTECTION

Rep. Chris Lee, Chair

Rep. Cynthia Thielen, Vice Chair

DATE: Tuesday, March 11, 2014

TIME: 8:30 A.M.

PLACE: Conference Room 325

SB 2656, SD2 "Modernization Hawaii Electric System"

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.

The title of the bill and the first sentence are different.

Some may believe the sentences mean the same thing but they do not.

The distinction is important.

Bill Title: "Modernization of the Hawaii Electric System"

First Sentence: "Modernization of Hawaii's electricity grid"

A 2013 Report by **CitiBank** Report, "Energy Darwinism – the evolution of the energy industry" notes that "the rate at which the price of solar panels has reduced has exceeded all expectations, resulting in cost parity being achieved in certain areas much more quickly ...the technology just keeps getting cheaper. At the same time, the alternatives of conventional fossil fuels are likely to gradually become more expensive."¹

¹ <https://www.citivelocity.com/citigps/ReportSeries.action?recordId=21>

Grid parity on the Neighbor Islands came and went. It is now cheaper to install solar and batteries than to stay on the grid.

David Crane, CEO of NRG Energy, the nation's largest independent power producer and retail electricity provider believes that solar and natural gas will displace the electric transmission grid.² Over 30 million American customers are connected to natural gas grids.

HawaiiGas operates an underground gas grid throughout urban Honolulu.

Former U.S. secretary of energy Steven Chu (2009-13) proposed that utility-owned residential solar and batteries is the answer.³

“Ultimately, utilities are going to have to adapt or die” asserted **Federal Energy Regulatory Commission (FERC) chairman Jon Wellinghoff** in his keynote address at the National Summit on Integrating Energy Efficiency & Smart Grid held in Washington, D.C. last October.

In November 2012 Wellinghoff said, “There are ways that a very few number of actors with very rudimentary equipment could take down large portions of our grid.” He asserted that the threat to transformers is at least as serious as cybersecurity. He reported that an attacker could take out a substation from 200 yards away using a .22 rifle.⁴

It is important that in supporting the PUC to do its job and the handle the vast complexities of the energy revolution, that we do not hogtie the agency.

It is important that the agency is able to look at all options instead of being forced into accepting a pre-determined outcome.

Hawaii has the opportunity to test different solutions: smart grids, micro-grids, smart buildings, up-stream and down-stream solutions and stand alone systems.

There is no reason to believe that an optimal solution for one island is the optimal solution for another island. Each island has different resources and different community values.

Diversity strengthens democracy.

² <http://www.theatlantic.com/technology/archive/2013/11/who-will-compete-with-energy-companies-in-the-future-apple-comcast-and-you/281109/>

³ <http://www.npr.org/2013/07/02/197868020/former-energy-secretary-wants-power-generation-decentralized?start=25>

⁴ <http://www.bloomberg.com/news/2012-11-20/rifle-toting-terrorists-pose-great-threat-to-power-grid.html>



Hawaii Solar Energy Association
Serving Hawaii Since 1977

Before the House Committee on Energy & Environmental Protection
Tuesday, March 11, 2014, 8:30 a.m., Room 325
SB 2656 SD 2: 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 general support for the intent of SB 2656 SD 2, which directs the public utilities commission to open a proceeding by July 1, 2014 to address the technical, policy, and economic issues associated with the modernization of Hawaii's electricity grids, with a focus on distributed generation. HSEA is a non-profit trade organization that has been advocating for solar energy since 1977, with an emphasis on solar hot water (SHW) and Photovoltaics (PV) in both residential and small commercial installations. We currently represent 81 companies, which employ thousands of local workers in the solar industry. With 37 years of advocacy behind us, HSEA's goal is to work for a sustainable energy future for all of Hawaii.

Although HSEA supports the general intent of SB 2656 SD 2, HSEA respectfully requests that SB 2656 SD 2 be replaced with SB 2565 SD 1 PUC-SC Combined Edits [PROPOSED] currently under revision in the Senate working group of which HSEA has been a part. The working group consists of various stakeholders from the utility, the PUC, the Consumer Advocate, the Sierra Club, and other industry representatives, and has been meeting for the last month to find a reasonable compromise that all stakeholders could support. We are still in the midst of our negotiations, but are continuing to meet and are making progress.

Some key improvements of the working group draft over the current draft of SB 2656 SD 2 include a more direct mandate to the PUC such that the PUC shall base their docket on the listed principals rather than just take certain measures "into consideration," a mechanism to convene a working group prior to the formal docket proceeding subjects to the PUC's discretion, and suggested funding amounts for both the PUC and the Consumer Advocate. HSEA supports all three of these additions.

However, HSEA respectfully requests that the Committee on Energy & Environmental Protection amend section a (3) of the suggested working group draft to read "maximize distributed generation interconnections in non-discriminatory terms and at just and reasonable rates, while maintaining reliability of the grid, through applicable rules, orders, and tariffs." Key in the discussion of grid modernization is access to the grid for distributed generation. The connection of distributed generation projects has slowed significantly since last September when the utility announced new interconnection rules for all of its service territories. The industry has stalled to approximately 50% since that announcement, and many customers have waited in the queue since September to find out what their portion of interconnection costs might be.

Roof top solar provides many benefits to the islands which include a reduced need for day time generation, off set fuel costs, environmental benefits, and an improved state economy with more Hawaii dollars staying at home. But to move forward and fulfill the potential of this valuable resource, we need to find solutions that address interconnection concerns specifically with regards to perceived and real

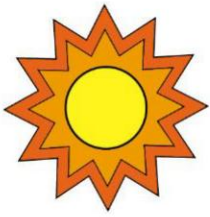
technical limitations. Replacing section (a) (3) with more precise language will more efficiently serve this purpose.

This bill does not preclude the importance of a diverse portfolio of cost-effective renewable projects, and in no way puts distributed generation ahead of any other groups. SB 2656 SD 2 recognizes the value of distributed generation, and the urgent need to get answers to the technical, policy, and economic issues current facing DG.

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



INTER-ISLAND SOLAR SUPPLY

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761 Ahua St., Honolulu, HI 96819
73-5569 Kauhola St., Kailua-Kona, HI 96740
400 Ala Makani St. #103, Kahului, HI 96732

Tel: (808)523-0711 Fax: (808)536-5586
Tel: (808)329-7890 Fax: (808)329-5753
Tel: (808)871-1030 Fax: (808)873-7825

Testimony of Inter-Island Solar Supply
In Regard to S.B. 2656, S.D. 2, Relating to Electrical Grid Modernization
Before The
House Committee on Energy and Environmental Protection
Tuesday, March 11, 8:30 a.m.

Chair Lee, Vice-Chair Thielen and members of the committee, my name is Richard Reed and I am the president of Inter-Island Solar Supply. **We support the intent of this bill and provide recommendations and comments.**

SB 2656, SD 2 has “evolved” to the point that its original purpose has been lost. We now feel that HB 1943, HD 2, is more likely to lead to a robust PUC docket addressing those issues relating to grid modernization and access – for both utility scale projects and distributed generation (DG) - that have made this measure so controversial.

The most important issues for DG in Hawaii are now: 1) Timely and safe grid access, 2) The fair and equitable allocation of costs associated with the technical upgrades that may be required to accommodate more DG, 3) A full accounting of the actual NEM/DG costs and benefits for ratepayers and the electric utility companies, and 4) The extent to which additional utility scale renewable energy projects will make DG interconnection even less accessible than it is now.

It is our position that the final draft of this bill should require the PUC to tackle all of these issues simultaneously, with the highest priority going to the technical and engineering upgrades that will allow increased grid access while maintaining system safety and reliability.

There continues to be a perception that NEM DG is only for rich folks and that non-participating ratepayers will be left holding a very heavy bag containing significantly higher rates. This is a misconception for four primary reasons:

First, high electric rates in Hawaii are not caused by renewables; they are primarily a function of our continuing dependence on expensive low-sulfur crude oil.

Second, in the new world of creative solar financing, long-term low interest loans, leases and power purchase agreements provide all credit worthy ratepayers with a means to lower or at least stabilize their electric bills. Our banks and credit unions, moreover, have developed competitively priced PV financing options for those that wish to own their systems.

Third, the State’s innovative GEMS green finance program is designed to help precisely those ratepayers that want PV, but do not qualify for conventional finance.

Forth, community solar as proposed in HB 2141 would allow ratepayers living in condos or homes that cannot easily or effectively deploy solar to buy shares in large-scale PV or wind projects and thus lower their utility costs. It is unfair to find inequality in the system and wring our hands if simple solutions such as community solar are at hand.

The catch here is that all of these democratizing finance options are of no help without grid access. Therefore, the Commission should first focus on the best and most cost-effective technical and engineering solutions that will provide increased and continuing DG grid access.

Safe and reliable interconnection for all comers is not, however, a cost free proposition. This docket has the potential to impact customer electric bills as well as utility financial returns. The thorny issue of how costs should be most fairly allocated for the system-wide upgrades that may be needed to accommodate more DG is best left to the Commission.

There are other questions to consider. For example, what DG benefits inure to all ratepayers and how should we value them? This is not simply about costs with no offsetting ratepayer benefits. It is our sense that appropriate, targeted and timely utility capital expenditures – especially for Oahu’s aged grid – that allow more DG while minimizing the impact on all ratepayers, is a significant public benefit. Importing and burning less oil makes us more secure, mitigates environmental damage, promotes our state’s green image, keeps billions of dollars in the state for reinvestment, creates good jobs and expands the tax base. All of these, I would argue, are valuable public benefits that are diminished by less, rather than more, DG and energy efficiency.

There are also some that argue that they receive no direct personal benefit from DG because they live in a high-rise and DG only benefits those that live in single family or low-rise multi-family housing. With the adoption of community based solar (HB 2141) this argument, while specious, becomes irrelevant.

In addition, the PUC has previously ruled in the Energy Efficiency Docket (05-0069) and other proceedings that all ratepayers benefit from our statutory (EEPS) energy efficiency programs. Homeowners do not directly benefit from chiller or large motor and commercial lighting upgrades. Condo dwellers do not directly benefit from residential solar water heating installations. Neither group directly benefits from equipment upgrades in hotels or airports. In reality, all of us **collectively** benefit from investments in energy efficiency made by individuals, condo boards, businesses, hotels or the state government.

All ratepayers now pay a small monthly Public Benefit Fund surcharge that supports our EEPS goal of achieving 30% of all our energy needs from efficiency gains by 2030. The Commission long ago judged that this small incremental charge is cost-effective across the full suite of approved residential, commercial and industrial efficiency measures and is also clearly in the public interest.

Are the public benefits from NEM and DG really that much different from those received from EEPS and energy efficiency? We think not, but the proper venue for this discussion is in the docket originally envisioned by this legislation.

In addition to being denuded, SB 2656, SD 2 simply gives the PUC too much time for deliberation. The issues outlined in the original version of the bill are urgent. We need immediate solutions to the technical and engineering aspects of grid modernization that will allow both NEM/DG and utility scale renewable energy projects to coexist in a manner beneficial to all ratepayers.

Without a prompt D & O focused on the system-wide upgrades that will allow safer interconnection, additional damage will be done to ratepayers and the solar industry. We believe that eight to nine months should provide adequate time to complete this essential first piece of the docket. Industry groups and HECO already have spent over six months working through these technical and engineering upgrades and challenges.

Thank you for the opportunity to provide these comments.



League of Women Voters of Hawaii

49 South Hotel Street, Room 314 | Honolulu, HI 96813

www.lwv-hawaii.com | 808.531.7488 | voters@lwvhawaii.com

COMMITTEE ON ENERGY AND ENVIRONMENTAL PROTECTION
Representative Chris Lee, Chair
Representative Cynthia Thielen, Vice Chair

Tuesday, March 11, 2014, 8:30 A.M.

SB2656 SD2 RELATING TO THE MODERNIZATION OF THE HAWAII ELECTRIC SYSTEM

TESTIMONY

Nancy Davlantes, Legislative Committee Member, League of Women Voters of Hawaii

Chair Lee, Vice Chair Thielen, and Committee Members:

The League of Women Voters of Hawaii supports SB2656 SD2, which would require the public utilities commission to adopt rules for improved accessibility to connect to the Hawaii electric system for any person, business, or entity on the Hawaii electric system. It would 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.

The League has long supported actions to promote energy conservation and research into alternate energy resources available in Hawaii, taking into consideration environmental effect, economic feasibility, and differing conditions on each island. Given the overwhelming testimony in support of this bill and the increasing impatience of the public with the pace of progress, we feel the Legislature needs to give the PUC much firmer guidance and make clear that the commission must move as fast as possible to resolve the technical issues holding up installations for those who are eager to enjoy lower electrical rates through the implementation of solar. Creating a smart grid is a big project, but progress needs to begin now.

While Hawaiian Electric Co. has issued revised guidelines to allow more PV systems to be installed in areas on Oahu already saturated with solar panels if the systems meet certain technical specifications, more needs to be done so that any individual or business wanting to pursue cleaner and cheaper energy options can do so safely and reliably.

We urge you to pass this bill and thank you for the opportunity to submit testimony.



Directors

Jody Allione
Silver Ridge

Joe Boivin
Hawaii Gas

Kelly King
Pacific Biodiesel

Warren S. Bollmeier II
WSB-Hawaii

TESTIMONY OF WARREN BOLLMEIER ON BEHALF OF THE
HAWAII RENEWABLE ENERGY ALLIANCE BEFORE THE
HOUSE COMMITTEE ON ENERGY AND ENVIRONMENTAL PROTECTION

SB2656 SD2, RELATING TO THE MODERNIZATION
OF THE HAWAII ELECTRIC SYSTEM

March 11, 2014

Chair Lee, Vice-Chair Thielen and members of the Committee, I am Warren Bollmeier, testifying on behalf of the Hawaii Renewable Energy Alliance (HREA). HREA is an industry-based, nonprofit corporation in Hawaii established in 1995. Our mission is to support, through education and advocacy, the use of renewables for a sustainable, energy-efficient, environmentally-friendly, economically- sound future for Hawaii. One of our goals is to support appropriate policy changes in state and local government, the Public Utilities Commission and the electric utilities to encourage increased use of renewables in Hawaii.

The purposes of SB2656 SD2 are to: (i) require the public utilities commission to initiate a proceeding no later than July 1, 2014, to address the technical, policy, and economic issues associated with the modernization of Hawaii's electricity grids, (ii) require the division of consumer advocacy to represent the interests of all consumers at the proceeding, and (iii). appropriate funds to the commission and division of consumer advocacy

HREA **strongly supports** this measure with comments and recommendations:

- 1) Comments. Clearly, this measure supports our clean energy goals. Its intent is also clear regarding modernization of our electric grids (lines 6 to 17, p.1), without which, in our opinion, it will be difficult to integrate the level of renewables needed to meet our clean energy goals:
 - a) We strongly support “the development of a diverse portfolio of renewable energy resources”) that includes both utility-scale and distributed systems (lines 6 to 7, p.1), and
 - b) We strongly support the role of the Public Utility Commission to open a docket on grid modernization, which will benefit from the lessons learned on the Reliability Standards Working Group Docket, including integration issues for both distributed generation to off-set customer loads and utility-scale systems for export of power to the utility.
- 2) Recommendations: We recommend the committee pass this measure out.

Mahalo for this opportunity to testify.



Testimony of Cindy McMillan
The Pacific Resource Partnership

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

SB 2656, SD2 - RELATING TO THE MODERNIZATION OF THE HAWAII ELECTRIC SYSTEM
Tuesday, March 11, 2014
8:30 AM
Conference Room 325

Aloha Chari 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** SB 2656, SD2, Relating to the Modernization of the Hawaii Electric System, which the Public Utilities Commission to adopt rules for improved accessibility to connect to the Hawaii electric system for any person, business, or entity on the Hawaii electric system. 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.

March 11, 2014

Testimony supporting SB 2656, SD2 – Relating to the Modernization of the Hawaii Electric System

Page 2

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.

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 SB 2656, SD2. Thank you for the opportunity to share our views on this important initiative with you.



1110 University Avenue, Suite 402

Honolulu, Hawaii 96826

Tel: (808) 371-1475

www.REACHhawaii.org

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

**In SUPPORT of SB 2656 SD 2 RELATING TO
MODERNIZATION OF THE HAWAII ELECTRIC SYSTEM**

**Before the
HOUSE COMMITTEE ON ENERGY & ENVIRONMENTAL PROTECTION**

March 11, 2014 8:30 a.m.

Aloha 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 SB 2656 SD 2.

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** SB 2656 SD 2 because the PUC proceeding required by SB 2656 SD 2 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 providing this opportunity to testify.

**TESTIMONY BEFORE THE HOUSE COMMITTEE ON
ENERGY & ENVIRONMENTAL PROTECTION**

S.B. No. 2656 SD2

RELATING TO THE MODERNIZATION OF THE HAWAII ELECTRIC SYSTEM

March 11, 2014

WRITTEN TESTIMONY ONLY

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 and its subsidiary utilities Maui Electric and Hawaii Electric Light.

We support the intent of SB 2656 SD2 to open a Public Utilities Commission review of technical, policy and economic issues associated with modernization of the electric grid, including but not limited to, customer-owned distributed generation. This proceeding should not be constrained by statutory language that would bind the Commission and set unrealistic expectations for our customers; rather, we support a PUC review through a broader lens that considers the value of customer generation as part of a broader energy resource mix that includes, but is not limited to, utility scale renewable generation, demand response, and energy storage. The intent and goal of the Commission review would be to maximize benefits and minimize costs to all customers, not just those with photovoltaics.

Thank you for this opportunity to testify.



HOUSE COMMITTEE ON ENERGY & ENVIRONMENTAL PROTECTION

February 11, 2014, 8:30 A.M.

Room 325

(Testimony is 3 pages long)

TESTIMONY IN SUPPORT OF SB 2656 SD2

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

Blue Planet Foundation in support of SB 2656 SD2, helping to create a robust electrical grid that can connect clean and affordable energy to Hawai'i's citizens and ratepayers. While we support SB 2656, we prefer the original version of the measure (or the language found in the House version, HB 1943).

Senate Bill 2656 SD2, appropriately amended, 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 to open a proceeding by July 1, 2014, to address the technical, policy, and economic issues associated with the modernization of Hawaii's electricity grids.

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:

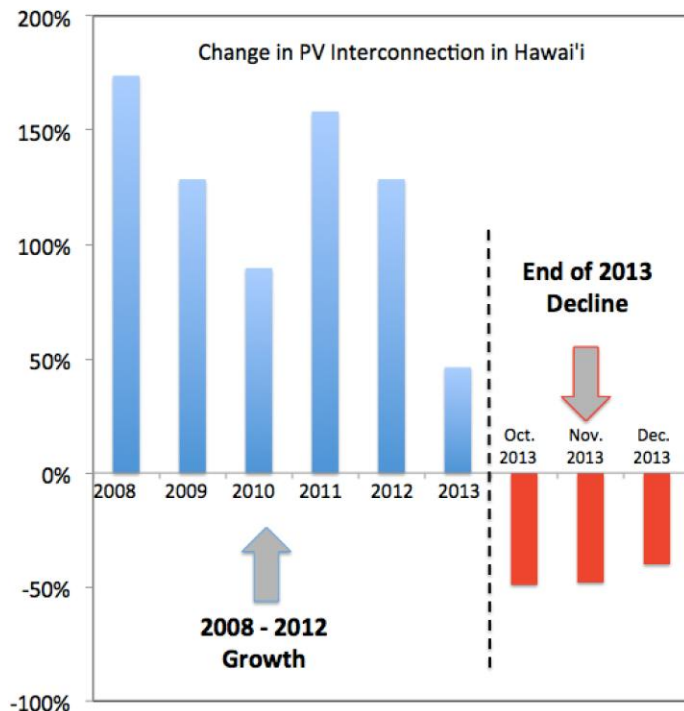
- In October 2013, 1187 fewer ratepayers were issued solar building permits compared to October 2012, a drop of 49%.
- In November 2013, 956 fewer ratepayers interconnected, a drop of 48%.
- In December 2013, 785 fewer ratepayers interconnected, a drop of 41%.

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 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.

Senate Bill 2656 SD2 can help to make sure that this grid modernization issue is resolved sooner, rather than later.

2. Senate Bill 2656 SD 2 Can Help Ensure Equality for All Ratepayers.

Senate Bill 2656 SD2 should 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.

% 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.

Senate Bill 2656 should be amended to direct 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. Senate Bill 2656 SD2 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.

SB 2656 SD2 should direct 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.

SB2656

Submitted on: 3/10/2014

Testimony for EEP on Mar 11, 2014 08:30AM in Conference Room 325

Submitted By	Organization	Testifier Position	Present at Hearing
Charles Prentiss	Kailua Neighborhood Board	Support	No

Comments: The Kailua Neighborhood Board adopted the Resolution below fully supporting SB2656. RESOLUTION REGARDING GRID MODERNIZATION WHEREAS, Hawaii is highly dependent on imported fossil fuels, and WHEREAS, State of Hawaii has adopted clean energy goals to increase the use of its abundant renewable energy resources, and WHEREAS, Hawaii has electricity rates that are among the highest in the nation, and WHEREAS, photovoltaic solar systems offer individual homeowners the ability to participate in Hawaii's clean energy goals and also to reduce their household electric bills, and WHEREAS, the Hawaiian Electric Company (HECO) has expressed concerns that its aging utility grid will be unable to accommodate many customers who wish to install a photovoltaic solar system, and WHEREAS, modernization of HECO's utility grid will allow greater numbers of residential utility customers to install photovoltaic solar systems without jeopardizing the safety or reliability of the utility grid, and WHEREAS, the Kailua Neighborhood Board wishes the residents it represents to have the opportunity to install photovoltaic solar systems on their houses and to interconnect those systems to HECO's utility grid, and WHEREAS, HB1943 and SB2656 require the Public Utilities Commission to initiate a proceeding to discuss upgrades to the Hawaii electric system for anticipated growth of customer generation, and the technical, policy and economic issues associated with the modernization of Hawaii's electricity grids, NOW THEREFORE BE IT RESOLVED that the Kailua Neighborhood Board fully supports HB1943 and SB2656 and urges the State Legislature and the Governor to approve these bills.

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

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



Testimony of Cindy McMillan
The Pacific Resource Partnership

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

SB 2656, SD2 - RELATING TO THE MODERNIZATION OF THE HAWAII ELECTRIC SYSTEM
Tuesday, March 11, 2014
8:30 AM
Conference Room 325

Aloha Chari 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** SB 2656, SD2, Relating to the Modernization of the Hawaii Electric System, which the Public Utilities Commission to adopt rules for improved accessibility to connect to the Hawaii electric system for any person, business, or entity on the Hawaii electric system. 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.

March 11, 2014

Testimony supporting SB 2656, SD2 – Relating to the Modernization of the Hawaii Electric System

Page 2

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.

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 SB 2656, SD2. Thank you for the opportunity to share our views on this important initiative with you.



3/11/2014

House Committee on
Energy and Environmental Protection

EEP

8:30 a.m.

TESTIMONY SUPPORTING THE INTENT

SB 2656

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

Hawaii PV Coalition is pleased to submit testimony supporting the intent of SB 2656. However, Hawaii PV Coalition requests that the language of SB 2656 SD2 be replaced with the language of HB 1943 HD1, which was previously passed by this committee.

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.

The intent of SB 2656 is to 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.

However, the proposed SD2 significantly weakens the bill by deferring legislative action in favor of having the Public Utilities Commission open a docket on this matter. The Hawaii PV Coalition believes that more direct legislative action is required. For this reason, the Hawaii PV Coalition requests that the language of SB 2656 SD2 be replaced with the language of HB 1943 HD1, which was previously passed by this committee.

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.

March 10, 2014

SB 2656, SD2 RELATING TO THE MODERNIZATION OF THE HAWAII
ELECTRIC SYSTEM

Modernization of the Hawaii Electric System should also look into a company based in Sunnyvale, California and the State of Delaware. You can generate electricity with the Bloom Energy patented solid oxide fuel cell technology and it will be wireless which can use clean, reliable, natural gas or directed biogas. Generating power onsite, rather than centrally, eliminates the cost, complexity and inefficiencies associated with transmission and distribution. Distributed generation shifts the control to the consumer. It can also be part of an existing electric grid and easy and fast to install, practically anywhere, and nearby at ground level or parking spaces and in high rise buildings. For more power you can add energy servers of 100kW or 200kW increments, making it simple to adapt one's energy needs.

Following a milestone of over 100 MW of its fuel cells in the U.S., Bloom Energy has of, November 25, 2013, announced the installation of its first fuel cell internationally, at a building in Fukuoka, Japan.

Bloom Energy is changing the way the world generates and consumes energy. On October 16, 2013, Bloom Energy celebrated the opening of its state-of-the-art manufacturing facility in Newark, Delaware. You can watch 9 videos and meet Bloom Energy Delaware Team Members online on youtube.com/watch?v=ZAJ7WjN3j_Y

Delmarva Power regional President, Gary Stockbridge, said the Bloom Energy electrical project in New Castle, Delaware was unaffected by Hurricane Sandy on October 30, 2012 despite its location near the Delaware River.

In 2011, CEO K.R. Sridhar said, according to the New York Times...unveiled a service to allow customers to buy the electricity generated by its fuel cells without incurring the capital costs of purchasing the six-figure devices. Under the Bloom Electrons service, customers sign 10-year contracts to purchase the electricity generated by Bloom Energy while the company retains ownership of the fuel cells and responsibility for their maintenance.

Mahalo,



Wendell Lum



STANLEY CHANG
Councilmember – District IV
Phone: (808) 768-5004
Fax: (808) 768-5000
ccldistrict4@honolulu.gov
www.honolulu.gov/council/d4

CITY COUNCIL
CITY AND COUNTY OF HONOLULU
530 SOUTH KING STREET, ROOM 202
HONOLULU, HAWAII 96813-3065
TELEPHONE: (808) 768-5010 • FAX: (808) 768-5011

LATE

March 10, 2014
TESTIMONY OF STANLEY CHANG
CONCILMEMBER FOR THE CITY AND COUNTY OF HONOLULU

On

S.B. No. 2656, S.D.2, RELATING TO THE MODERNIZATION OF THE HAWAII ELECTRIC
SYSTEM

Committee on Energy & Environmental Protection
Tuesday, March 11, 2014
8:30 a.m.
Conference Room 325

Dear Chair Lee and Committee Members:

Thank you for allowing me the opportunity to submit testimony in support of S.B. 2656, SD2 Relating to the Modernization of the Hawaii Electric System in my capacity as Councilmember of the City and County of Honolulu.

S.B. 2656, SD2 requires the Public Utilities Commission to initiate a proceeding no later than July 1, 2014, to address the technical, policy, and economic issues associated with the modernization of Hawaii's electricity grids. The bill also requires the division of Consumer Advocacy to represent the interests of all consumers at the proceeding.

Hawaii by far has the highest electrical utility rates in the nation. Over the last four years the average residential rate has gone up by more than 50%. The people of this state should have the option to implement cleaner and more cost effective options to power their homes.

For these reasons, I respectfully ask for your favorable passage of S.B. 2656, SD2 Relating to the Modernization of the Hawaii Electric System, and thank the Committee for allowing me to provide testimony.

Sincerely,

LATE

Stanley Chang
Councilmember, District IV



Testimony of
Martha Townsend, Executive Director
The Outdoor Circle

Before the House Committee on
Energy and Environmental Protection

Regarding SB2656, SD2 relating to Modernization of the Hawaii Electric System

Tuesday March 11, 2014
8:30 am in room 325

Aloha Chairman Lee and members of the Committee on Energy and Environmental Protection,

The Outdoor Circle **strongly supports the passage of SB2656, SD2 with amendments.** The public utilities in Hawaii have failed to evolve. To survive, they need to not only embrace a distributed system of renewable energy, they also need to embrace more reliable methods of transmission.

The Outdoor Circle asks that this committee amend SB2656 to include an investigation of undergrounding utility lines.

The CEO of the nation's largest independent power producer and retail electricity provider recently said at U.D. Department of Energy conference: **"Think how shockingly stupid it is to build a 21st-century electric system based on 120 million wooden poles."**

While newly built subdivisions in Hawaii enjoy mandated underground utilities, older communities continue to suffer with interrupted service and interrupted viewplanes from overhead utility lines.

While utilities in other jurisdictions have embraced the future and are making systematic plans for undergrounding, the public utilities in Hawaii have willfully ignored the need to plan for undergrounding in our communities.

The utilities here dismiss the suggestion as too expensive. Yet, in these other jurisdictions we see the utilities' investment in the community is complemented with federal grants and private investment in grid modernization.

Communities and businesses around the islands are hobbled by an antiquated electrical transmission system that the utilities seem committed to continuing. As we speak, public utilities here are implementing a "pole replacement policy" that calls for replacing all utility poles with taller, wider poles. Instead of taking a systematic approach to the issue of an aging network of poles, and allowing for the thoughtful consideration

of undergrounding in those communities that want it, the utilities are replacing the poles one-by-one with no prior notice to residents.

Residents adversely affected by this pole replacement policy have filed complaints with the Public Utilities Commission and an investigative docket was opened. The Outdoor Circle encourages the members of this committee to review the public documents in **docket #2013-0082, which are available on the PUC website.**

In addition, this committee should also review the Legislative Reference Bureau report on this very topic, which recommends developing a systematic approach for undergrounding utility lines. The report is called **“Undergrounding Public Utility Lines” by Pamela Martin, published in 1999.**

Hawaii's public utility system is out-dated on so many levels. The public utilities here have demonstrated that they are unwilling to invest in our communities to improve the system. The battle for undergrounding has endured for almost 100 years. It took a law passed by this body in the 1990's to have utility lines undergrounded in new subdivisions and federally funded highways. It will take another law from this legislature to require the utilities to finish the job properly and underground the utility lines in older communities, as well. This is why The Outdoor Circle urges this Committee to amend SB2656 to include underground utility lines.

Thank you for the opportunity to provide testimony. I am available to answer questions, if there are any.

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HOUSE COMMITTEE ON ENERGY AND ENVIRONMENTAL PROTECTION
Tuesday, March 11, 2014 — 8:30 a.m. — Room 325

Testimony Supporting the Intent of SB 2656

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

Thank you for the opportunity to provide testimony in support of the intent 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.

RevoluSun supports the intent of SB 2656. However, RevoluSun requests that the language of SB 2656 SD2 be replaced with the language of HB 1943 HD1, which was previously passed by this committee.

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.

The intent of SB 2656 is to 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.

However, the proposed SD2 significantly weakens the bill by deferring legislative action in favor of having the Public Utilities Commission open a docket on this matter. RevoluSun believes that more direct legislative action is required. For this reason, RevoluSun requests

that the language of SB 2656 SD2 be replaced with the language of HB 1943 HD1, which was previously passed by this committee.

Sincerely,

Colin Yost
Principal & General Counsel