

TESTIMONY OF RANDY IWASE  
CHAIR, PUBLIC UTILITIES COMMISSION  
STATE OF HAWAII  
TO THE  
HOUSE COMMITTEE ON  
CONSUMER PROTECTION AND COMMERCE

March 2, 2015  
3:00 p.m.

**MEASURE:** H.B. No. 264, H.D. 1  
**TITLE:** Relating to Energy

Chair McKelvey, Vice Chair Woodson, and Members of the Committee:

**DESCRIPTION:**

This measure requires the Public Utilities Commission (“Commission”) to open a proceeding by July 1, 2016 to “establish a process to establish integrated energy districts.”

**POSITION:**

The Commission offers the following comments for the Committee’s consideration.

**COMMENTS:**

The Commission supports the development of integrated energy districts as articulated in the Commission's white paper entitled, *Commission's Inclinations on the Future of Hawaii's Electric Utilities*. Integrated energy districts allow for the aggregation of pockets of load and generation resources, which can disconnect and reconnect to the main grid in times of emergency.

The Commission notes that the timing requirements of this measure may place a strain on Commission resources given other matters currently before the Commission.

Thank you for the opportunity to testify on this measure.



DAVID Y. IGE  
GOVERNOR  
  
SHAN S. TSUTSUI  
LT. GOVERNOR

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JO ANN M. UCHIDA TAKEUCHI  
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TO THE HOUSE COMMITTEE ON CONSUMER PROTECTION & COMMERCE

THE TWENTY-EIGHTH LEGISLATURE  
REGULAR SESSION OF 2015

MONDAY, MARCH 2, 2015  
3:00 p.m.

TESTIMONY OF JEFFREY T. ONO, EXECUTIVE DIRECTOR, DIVISION OF  
CONSUMER ADVOCACY, DEPARTMENT OF COMMERCE AND CONSUMER  
AFFAIRS, TO THE HONORABLE ANGUS L.K. McKELVEY, CHAIR,  
AND MEMBERS OF THE COMMITTEE

HOUSE BILL NO. 264, H.D. 1 - RELATING TO ENERGY

DESCRIPTION:

This measure proposes to require the Public Utilities Commission to establish a process for the creation of integrated energy districts.

POSITION:

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

COMMENTS:

The Consumer Advocate contends that as part of the process in establishing integrated energy districts, consumer issues must be addressed such as protecting the interests of customers served within the energy district and ensuring that customers that remain on the utility system do not subsidize the electric service provided to the energy district.

Thank you for this opportunity to testify.



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**Testimony of ERIK KVAM**  
**President of Renewable Energy Action Coalition of Hawaii**  
**e-mail: [Erik.Kvam@REACHhawaii.org](mailto:Erik.Kvam@REACHhawaii.org)**

**In SUPPORT of HB 264 RELATING TO ENERGY**

**Before the**  
**HOUSE COMMITTEE ON CONSUMER PROTECTION & COMMERCE**

**March 2, 2015 3:00 p.m.**

Aloha Chair McKelvey, Vice-Chair Woodson and members of the Committee.

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

REACH is in **SUPPORT** of HB264.

Hawaii relies on imported fuels for more than 90% of its electricity generation. As imported fuels become harder to obtain and more expensive, sooner or later these imported fuels will stop flowing to Hawaii. When imported fuels stop flowing to Hawaii, Hawaii will arrive at 100% renewable energy received from whatever combination of grid-connected and island-able renewable generation has been planned for by Hawaii's electric utilities.

Planning Hawaii's 100% renewable energy future presents a tremendous challenge for Hawaii's electric utilities and the Public Utilities Commission. Establishing a process for interconnection of grid-connected and island-able renewable generation is an important component of the larger planning process for achieving 100% renewable energy. The sooner the Public Utilities Commission adopts such a process for interconnection of grid-

connected and island-able renewable generation, the sooner such renewable generation can be planned, developed and interconnected to achieve 100% renewable energy.

**REACH SUPPORTS** HB 264 – directing the Public Utilities Commission to adopt a process for establishing integrated energy districts -- to encourage the planning, development and interconnection of renewable generation from sources indigenous to Hawaii, to achieve Hawaii's 100% renewable energy future.

Thank you for providing this opportunity to testify.



**Hawaii Solar Energy Association**  
*Serving Hawaii Since 1977*

Before the House Committee on Consumer Protection and Commerce  
Monday, March 2, 2015, 3 pm, Room 325  
HB 264 HD 1: RELATING TO ENERGY

Aloha Chair McKelvey, Vice-Chair Woodson, and members of the House Committee on Consumer Protection and Commerce

On behalf of the Hawaii Solar Energy Association (HSEA), I would like to testify in support for HB 264 HD 1, which requires the public utilities commission to open a docket by July 1, 2016 for the purposes of establishing a process to facilitate the implementation of integrated energy districts HB 264 HD 1 provides a pathway for the public utilities commission to begin exploring the incorporation of integrated energy districts in Hawaii—a technology that can deliver substantial benefits to the people of this State.

Integrated energy districts, commonly referred to as “micro-grids”, are localized energy hubs that allow citizens to collectively generate, distribute, and consume energy from renewable sources in a specific region. Micro-grids have the option of operating in “island mode” where the system generates and distributes energy independent of the larger utility grid, or the micro-grid can connect to the utility grid to either send or receive energy. Conceptually, micro-grids operate similar to community solar; however, micro-grid consumers utilize energy from a locally specific source.

Some of the economic and environmental benefits of micro-grids include:

- Security and Reliability: the ability to independently produce, distribute, and consume energy gives customers a reliable power source immune to fossil fuel price fluctuations and centralized blackouts.
- Clean, Renewable Energy: microgrids produce energy from renewable resources. Thus, the implementation of microgrids will result in the increased use of renewable resources, and the decreased use of fossil fuels.
- Customer Participation: customizable to the local needs, customers take ownership over their energy needs and tailor their systems accordingly.
- Efficiency: microgrids reduce electrical line losses because more energy is locally produced and consumed. Furthermore, studies suggest that consumers reduce their overall energy use by up to 15% when they can track their consumption in real-time.<sup>1</sup>
- Innovation: it is faster to innovate on a small scale rather than a large scale.<sup>2</sup>
- Curtailement of Energy Sprawl: consumers produce and use energy in their own backyards. Microgrids reduce the number of large-scale projects that use up Hawaii’s land.
- Local Job Creation: Microgrids create local jobs in design, installation, and maintenance.

Micro-grids can help Hawaii become a 21st century clean energy leader, and this concept aligns with the State’s energy objectives as outlined in Act 155, the Hawaii Clean Energy Initiative, and the PUC’s Inclinations. For these reasons, HSEA respectfully requests that this committee pass and support HB 264 HD 1.

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<sup>1</sup> See [http://galvinpower.org/sites/default/files/Intel\\_Open\\_Energy\\_Initiative\\_for\\_Panel\\_v2\\_5\\_19\\_10.pdf](http://galvinpower.org/sites/default/files/Intel_Open_Energy_Initiative_for_Panel_v2_5_19_10.pdf)

<sup>2</sup> Id.

Thank you for the opportunity to testify,

David K. Stapp

Legal Extern

Hawaii Solar Energy Association

From: mailinglist@capitol.hawaii.gov  
Sent: Friday, February 27, 2015 8:10 AM  
To: CPCtestimony  
Cc: carl.campagna@kamakagreen.com  
Subject: Submitted testimony for HB264 on Mar 2, 2015 15:00PM

**HB264**

Submitted on: 2/27/2015

Testimony for CPC on Mar 2, 2015 15:00PM in Conference Room 325

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Carl Campagna	Environmental Caucus	Support	No

Comments: We are in full support of this measure as it has the potential to eliminate rolling black outs and brown outs for the districts if each are supported with sufficient storage capacity.

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

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**Testimony before the House Committee on Consumer Protection & Commerce**

**March 2, 2015 3:00pm**

**Conference Room 325**

**H.B. 264, H.D. 1 – Relating to Integrated Energy Districts**

**By Keiki-Pua Dancil, Ph.D.  
Director, Business Strategy Development  
Hawaiian Electric Company, Inc.**

*Chair McKelvey, Vice Chair Woodson, and House Members of the Committee:*

My name is Keiki-Pua Dancil. I am Director of Business Strategy Development at Hawaiian Electric Company. I am testifying on behalf of Hawaiian Electric and its subsidiary utilities, Maui Electric and Hawaii Electric Light (collectively “Companies”). The Companies see merit of the intent but **have concerns about the language** proposed in H.B. 264, H.D. 1 and therefore **oppose this bill as written**. The Companies would like to provide the following **comments for consideration** into H.B. 264, H.D. 2. The bill in its current form does not have enough clarity to ensure that ALL customers benefit from, or are not adversely impacted by, INTEGRATED ENERGY DISTRICTS.

Our vision is to deliver cost-effective, clean, reliable, and innovative energy services to ALL of our customers, creating meaningful benefits for Hawaii's economy and environment, and making Hawaii a leader in the nation's energy transformation. To drive our vision for Hawaii, we anchor our strategies in a set of common objectives; lowering customer bills 20 percent by 2030, increasing renewables in our generation portfolio, modernizing our grid, and expanding customer options.

To ensure ALL customers benefit from, and are not adversely impacted by integrated energy districts, we recommend that four key principles be addressed:

*Fairness with increased customer options:* Some of our customers have expressed an interest in exploring integrated energy districts as the economics of different solutions, such as renewables and storage, improve. We recommend that the bill encourage collaboration and partnering between utilities and customers to design and operate integrated energy districts and determine and coordinate the specific services needed. These additional services should enhance the value for customers connected to the integrated energy district and ensure that ALL customers benefit from establishing integrated energy districts, not just those within the integrated energy districts. Also, customers within the integrated energy districts should continue to remain customers of the utility and be able to participate in the utilities' energy programs as part of the broader integrated grid. One example of this concept is the collaboration between Hawaiian Electric and the Army to install a 50MW generating facility at Schofield<sup>1</sup>. This system will normally be connected to the larger grid to provide benefits to all customers, but has the ability to be isolated to the Army system to provide them increased energy security and resiliency during abnormal circumstances, a high priority requirement for the Department of Defense.

*Safety when operating the integrated energy district:* Operating an electric grid is complex and the safety of all customers served is paramount. Having an integrated energy district within the macro grid adds more complexity to the coordination and operation of these systems particularly when personnel are working in the energy district and in the macro grid. It is recommended that the operation of the integrated energy district be the responsibility of the Companies to ensure the safety of all customers served.

*Reliability of the macro electric system:* As stated in the preamble, there may be operational benefits that could be derived from an integrated energy district if executed in close coordination and partnership with the macro





electric system. To ensure that ALL customers benefit, there should be no negative impacts on the reliability of the macro electric system grid. The Companies agree and reaffirm the wording in the proposed bill that there should not be any compromise to the stability and reliability of the public utility's electric grid.

*Environmental impacts:* Integrated energy districts should also consider the environmental impacts of locating a number of generating resources in one location.

*Fairness regarding cost shift issues:* In addition, integrated energy districts should not result in increased costs for customers outside of the integrated energy districts. The operational and economic benefits of an integrated energy district should benefit ALL customers. To ensure there are no cost shift issues, regulatory policies need to be addressed as well. In addition, we would like to include subsection (c) to be considered in H.B. 264, H.D. 2 to ensure fairness to ALL customers:

**"§269- Integrated energy districts. (a) The public utilities commission shall establish, by rules adopted pursuant to chapter 91, a process to establish integrated energy districts. The process shall include measures to expedite interconnection agreement processing for the establishment and operation of integrated energy districts without compromising the stability and reliability of a public utility's electrical grid.**

**(b) As used in this section, "integrated energy district" means a group of interconnected loads and distributed energy resources within clearly defined electrical boundaries that acts as a single controllable entity with respect to the electrical grid and can connect to a public utility's electrical grid to operate in grid-connected mode and can disconnect from the grid to operate in island mode."**

**(c) Nothing in this section shall be construed to permit wheeling.**

Thank you for the opportunity to testify on this matter.

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i PUC Docket #: 2014-0113 APPLICATION FOR APPROVAL TO COMMIT FUNDS IN EXCESS OF \$2,500,000 (EXCLUDING CUSTOMER CONTRIBUTIONS) FOR THE PURCHASE AND INSTALLATION OF ITEM P0001576, SCHOFIELD GENERATING STATION PROJECT

woodson2-Rachel

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From: mailinglist@capitol.hawaii.gov  
Sent: Thursday, February 26, 2015 8:13 PM  
To: CPCtestimony  
Cc: mendezj@hawaii.edu  
Subject: \*Submitted testimony for HB264 on Mar 2, 2015 15:00PM\*

**HB264**

Submitted on: 2/26/2015

Testimony for CPC on Mar 2, 2015 15:00PM in Conference Room 325

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Javier Mendez-Alvarez	Individual	Support	No

Comments:

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From: mailinglist@capitol.hawaii.gov  
Sent: Sunday, March 01, 2015 11:58 PM  
To: CPCtestimony  
Cc: amybrinker@mac.com  
Subject: \*Submitted testimony for HB264 on Mar 2, 2015 15:00PM\*



**HB264**

Submitted on: 3/1/2015

Testimony for CPC on Mar 2, 2015 15:00PM in Conference Room 325

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Amy Brinker	Individual	Support	No

Comments:

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