

HB264, HD2

TESTIMONY OF RANDY IWASE
CHAIR, PUBLIC UTILITIES COMMISSION
STATE OF HAWAII
TO THE
SENATE COMMITTEE ON
ENERGY AND ENVIRONMENT

MARCH 17, 2015
2:45 p.m.

MEASURE: H.B. No. 264, H.D. 2
TITLE: Relating to Energy

Chair Gabbard 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 eventual 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*.

However, the Commission notes that the timing requirements of this measure will likely force diversion of the Commission’s limited resources from other important matters currently before the Commission.

Thank you for the opportunity to testify on this measure.



DAVID Y. IGE
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

CATHERINE P. AWAKUNI COLÓN
DIRECTOR

JO ANN M. UCHIDA TAKEUCHI
DEPUTY DIRECTOR

TO THE SENATE COMMITTEE ON ENERGY AND ENVIRONMENT

THE TWENTY-EIGHTH LEGISLATURE
REGULAR SESSION OF 2015

TUESDAY, MARCH 17, 2015
2:45 p.m.

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

HOUSE BILL NO. 264, H.D. 2 - 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.



Hawaii Solar Energy Association
Serving Hawaii Since 1977

Before the Senate Committee on Energy and Environment
Tuesday, March 17, 2015, 2:45 p.m, Room 225
HB 264 HD 2: RELATING TO ENERGY

Aloha Chair Gabbard, Vice-Chair Green, and members of the Committee,

On behalf of the Hawaii Solar Energy Association (HSEA), I would like to testify in support for HB 264 HD 2, 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 2 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.¹
 - Innovation: it is faster to innovate on a small scale rather than a large scale.²
 - Curtailed 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 2.

Thank you for the opportunity to testify,

¹ See http://galvinpower.org/sites/default/files/Intel_Open_Energy_Initiative_for_Panel_v2_5_19_10.pdf

² Id.

David K. Stapp
Legal Extern
Hawaii Solar Energy Association



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: Erik.Kvam@REACHhawaii.org

In SUPPORT of HB 264 HD2 RELATING TO ENERGY

Before the
SENATE COMMITTEE ON ENERGY AND ENVIRONMENT

March 17, 2015 2:45 p.m.

Aloha Chair Gabbard, Vice-Chair Green 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 HD2.

Hawaii relies on imported fuels for more than 80% 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 HD2 – 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.



Directors

Jody Allione
Project Development
Consultant

Joe Boivin
Hawaii Gas

Kelly King
Pacific Biodiesel

Warren S. Bollmeier II
WSB-Hawaii

TESTIMONY OF WARREN BOLLMEIER ON BEHALF OF THE
HAWAII RENEWABLE ENERGY ALLIANCE BEFORE THE
SENATE COMMITTEE ON ENERGY AND ENVIRONMENT

HB 264 HD2, RELATING TO ENERGY

March 17, 2015

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

The purpose of HB 264 HD2 is to require the PUC to establish a process for the creation of integrated energy districts.

HREA **supports** this measure with the following comments in support:

- 1) Clean Energy Goals. In our opinion, we need to facilitate the installation and operation of independent energy districts (“IEDs”) to the greatest extent possible if we are to meet our clean energy goals.
- 2) Potential Benefits. We offer the following comments regarding the potential benefits of IEDs:
 - a) Within the IED. An IED has to the potential to provide power to its customers at lower costs, and also at better power quality and high reliability. An IED could also be designed and operated to provide power to its customers in the case of island-wide power outages.
 - b) Grid Support. An IED can provide power to the island grid when required; and help improve the reliability of the island grid.

Therefore, we recommend that you pass this measure out.

Mahalo for this opportunity to testify.



**Testimony before the Senate Committee on Energy and Environment
March 17, 2015 2:45pm
Conference Room 225
H.B. 264, H.D. 2 – Relating to Integrated Energy Districts**

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

Chair Gabbard, Vice Chair Green, and 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. 2 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 S.D. 1. 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 Schofield¹. 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 is 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 S.D. 1 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.

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

From: mailinglist@capitol.hawaii.gov
To: [ENETestimony](#)
Cc: ndavlantes@aol.com
Subject: *Submitted testimony for HB264 on Mar 17, 2015 14:45PM*
Date: Sunday, March 15, 2015 2:50:36 PM

HB264

Submitted on: 3/15/2015

Testimony for ENE on Mar 17, 2015 14:45PM in Conference Room 225

Submitted By	Organization	Testifier Position	Present at Hearing
Nancy Davlantes	Individual	Support	No

Comments:

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

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