

HB848 HD2 SD1

Measure Title: RELATING TO ENERGY MODERNIZATION AT THE UNIVERSITY OF HAWAII SYSTEM.

Report Title: University of Hawaii; Microgrid Plan

Description: Requires UH to develop a microgrid plan for one demonstration project at any property owned, leased, or controlled by UH. Authorizes UH to select the location for the project. Requires UH to report to the legislature. Effective 7/1/2050. (SD1)

Companion: SB143

Package: None

Current Referral: HRE/TRE, CPH/WAM

Introducer(s): WOODSON, BELATTI, CACHOLA, CREAGAN, EVANS, HAR, HASHEM, ING, KONG, C. LEE, MATSUMOTO, MCKELVEY, MORIKAWA, OHNO, SAIKI, SAN BUENAVENTURA, SAY, SOUKI, TAKAYAMA, TODD

TESTIMONY OF RANDY IWASE
CHAIR, PUBLIC UTILITIES COMMISSION
STATE OF
HAWAII TO THE
SENATE COMMITTEES ON
CONSUMER PROTECTION AND HEALTH
&
WAYS AND MEANS

March 30, 2017
9:30 a.m.

MEASURE: H.B. No. 848, H.D. 2, S.D. 1

TITLE: Relating to Energy Modernization at the University of Hawaii System

Chair Baker, Chair Tokuda, and Members of the Committees:

DESCRIPTION:

This measure requires the University of Hawaii (“UH”) to develop a microgrid plan for one microgrid project at, or within, any properties owned, leased, or controlled by the university; provided that UH shall select the location for the microgrid project. This measure also requires UH to submit the microgrid plan and any proposed legislation to the legislature no later than twenty days prior to the convening of the regular session of 2018.

POSITION:

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

COMMENTS:

The Commission supports the development of microgrids as an option to meet the energy needs of customers as articulated in the *Commission’s Inclinations on the Future of Hawaii’s Electric Utilities* (See Docket No. 2012-0036, Order No. 32052). Microgrids offer the potential to aggregate pockets of load and generation resources, which can disconnect and reconnect to the main grid in times of emergency.

Should the Legislature choose to support the development of microgrids, appropriate Commission regulatory authority should be maintained to address any issues that may arise to ensure that the implementation of microgrids serves the broad public interest.

Thank you for the opportunity to testify on this measure.



UNIVERSITY OF HAWAII SYSTEM

Legislative Testimony

Testimony Presented Before the
Senate Committee on Commerce, Consumer Protection, and Health
and
Senate Committee on Ways and Means
March 30, 2017 at 9:30 a.m.
by
Kalbert K. Young
Vice President for Budget and Finance/Chief Financial Officer
University of Hawai'i System

HB 848 HD2 SD1 – RELATING TO ENERGY MODERNIZATION AT THE UNIVERSITY OF HAWAII SYSTEM

Chairs Baker and Tokuda, Vice Chairs Nishihara and Dela Cruz, and members of the committees:

The University of Hawai'i (UH) appreciates the intent of the current draft of HB 848 HD2 SD1, which requires UH to develop a microgrid plan for one demonstration project at any property owned, leased, or controlled by UH.

However, UH respectfully requests that the current draft of the bill be amended to reflect the content of HB 848 HD2, which is legislation that will not only reduce the University's dependence on fossil fuel generation and decrease its energy costs, which will ultimately lessen the burden of using tuition and fees to pay for utilities but it will also emphasize the need to change the current mindset of using renewables as THE energy source rather an alternative.

HB 848 HD2 would encourage and facilitate the development and use of microgrids at the various campuses and facilities operated by the University of Hawai'i in such a manner as to expand access to locally generated renewable energy and advanced distributed energy resources, and to promote the efficient distribution of electricity to the State's residents and businesses. To this end, the measure would seek the Public Utilities Commission (PUC) oversight and authority over microgrid related rates and charges that the electric utility may charge the University.

Currently, there is no PUC oversight of microgrids that require interface and cooperation with the public utility. This measure inserts PUC oversight and authority over microgrids managed by the University, which ensures review by an independent body.

In order to achieve UH's Net Zero Energy mandate (Act 99, Session Laws of Hawai'i 2015), the University will need to develop large-scale renewable energy projects that will benefit our students and the communities we serve, can help to increase the macro

electric system grid's stability and resilience, and support the State in achieving its goal of 100% clean energy by 2045.

HB 848 HD2 would improve UH's ability to execute on renewable energy projects at UH-West O'ahu and UH Hilo. UH expends as much as \$45 million each year for electrical utilities alone – which is between 10-15% of all tuition paid by students. Reducing electrical costs would be significant to reducing the cost of education and significant progress towards achieving the Net Zero mandate.

HB 848 HD2 would encourage the facilitation, development and use of microgrids and renewable energy across the University System, as well as increase the options available to develop collaborative solutions to finance and develop large-scale renewable energy projects.

It also would establish initial parameters on the microgrid size and distance from the power source, striking a balance between the University's need to use renewable energy to help achieve net-zero energy and an allowable use of the electric utility's facilities.

Thank you for the opportunity to testify and the University respectfully requests that the committee consider revising this measure to reflect the previous version of the bill as written in HB 848 HD2.



UNIVERSITY OF HAWAII SYSTEM

Legislative Testimony

Testimony Presented Before the
Senate Committee on Commerce, Consumer Protection, and Health
and
Senate Committee on Ways and Means
March 30, 2017 at 9:30 a.m.
By
Donald O. Straney, Ph.D.
Chancellor, University of Hawai'i at Hilo

HB 848 HD2 SD1 – RELATING TO ENERGY MODERNIZATION AT THE UNIVERSITY OF HAWAII SYSTEM

Chairs Baker and Tokuda, Vice Chairs Nishihara and Dela Cruz, and Members of the Committees:

My name is Donald Straney, Chancellor of the University of Hawai'i at Hilo (UHH). We support the intent of HB 848 HD2 SD1 to encourage and facilitate the development and use of micro grids and renewable energy across the University of Hawai'i System.

UH Hilo views the proposal as a means to achieve its strategic plan of demonstrating leadership in sustainable resource use. The use of renewable energy sources on our campus will help UH achieve its Net Zero Energy mandate by 2035 and the State of Hawai'i's goal of 100% clean energy by 2045.

At present, UH Hilo is served mostly by a single utility grid with limited installed PV capacity of 630 kw. We would like to enhance this to become more like what is today thought of as a micro grid. We have examined the scope and financial feasibility of various renewable energy projects at different sites on the UH Hilo campus. We believe this bill will facilitate expansion of distributed renewable energy sources on our campus.

UH Hilo requests that the bill be amended to the contents of HB 848 HD2 which will give us more time to coordinate and plan a project that will reduce our dependence on fossil fuel and decrease our energy costs.

This bill will also facilitate collaboration for UH Hilo to learn with our local utility company how to integrate renewable energy sources into an existing grid and to prepare the next generation of energy managers to do the same. This is an important resource for education, teaching, and learning, and would be particularly useful for our new Energy Science certificate program.

We support HB 848 HD2 SD1 provided its passage does not replace or adversely impact priorities in our BOR approved budget.

Thank you for the opportunity to testify on HD 848 HD2 SD1. Aloha.



UNIVERSITY OF HAWAII SYSTEM

Legislative Testimony

Testimony Presented Before the
Senate Committee on Commerce, Consumer Protection, and Health
and
Senate Committee on Ways and Means
March 30, 2017 at 9:30 a.m.
by
Maenette Benham
Chancellor, University of Hawai'i – West O'ahu

HB 848 HD2 SD1 – RELATING TO ENERGY MODERNIZATION AT THE UNIVERSITY OF HAWAII SYSTEM

Chairs Baker and Tokuda, Vice Chairs Nishihara and Dela Cruz, and members of the committees:

Thank you for the opportunity to submit testimony supporting the intent of HB 848 HD2 SD1 – Relating to Energy Modernization at the University of Hawai'i, which requires UH to develop a microgrid plan for one demonstration project at any property owned, leased, or controlled by UH.

UH West O'ahu respectfully requests that the bill be amended to reflect the contents of HB 848 HD2. The University of Hawai'i System has a legislative mandate (Act 99, Session Laws of Hawai'i 2015) to achieve net-zero energy by 2035. While the University supports this visionary goal, the University hopes to maximize the use of alternative energy sources to ensure this unfunded mandate does not come at the expense of our students, either directly or indirectly.

To this end, the University of Hawai'i – West O'ahu (UHWO) has the opportunity to use its property, mauka of the H-1 freeway, to develop a photovoltaic farm that, via the previous version of this bill, HB 848 HD2, could connect to and meet the energy demands of the main UHWO campus. UHWO's enrollment continues to increase each year and, with the expansion of academic programs and related facilities, the energy demand and associated utility costs will also increase.

HB 848 HD2 would provide a vehicle to cost effectively develop and utilize this proposed alternate energy source. The power produced would not only service the planned 300-acre campus but could also serve the 168 acres of non-campus lands targeted for development through a private/public partnership agreement. The non-campus lands are planned for development in close coordination and collaboration with UHWO such that it will complement and enhance the college town experience and provide long-term financial benefits for the University.

Thank you for the opportunity to testify on this measure.

**WRITTEN TESTIMONY BEFORE THE SENATE COMMITTEES ON
COMMERCE, CONSUMER PROTECTION AND HEALTH AND
WAYS AND MEANS**

H.B. No. 848, H.D. 2, S.D.1

Relating to Energy Modernization at the University of Hawaii System

Thursday, March 30, 2017
9:30 a.m.
State Capitol, Conference Room 211

Kevin M. Katsura
Assistant Deputy General Counsel (Regulatory), Legal Department
Hawaiian Electric Company, Inc.

Chairs Baker and Tokuda, Vice Chairs Nishihara and Dela Cruz, and Members of the
Committees:

My name is Kevin Katsura and I am providing written testimony on behalf of
Hawaiian Electric Company and its subsidiary utilities Maui Electric Company and
Hawai'i Electric Light Company (collectively referred to as "the Companies"). The
Companies support microgrids that benefit all customers (those within and outside
the microgrid). The Companies offer comments to HB 848 HD 2, S.D.1.

This bill, among other things:

- Requires the University of Hawaii to develop a microgrid plan for one
microgrid project; and
- Requires the University of Hawaii to submit the microgrid plan and any
proposed legislation to the Legislature no later than 20 days prior to the
convening of the regular session of 2018.

This version of the bill removed the most concerning part of the previous
versions of the bill which:

- Allowed the establishment of wheeling before determining if it is feasible, how it would impact all customers in Hawaii, and whether it would fit into the state's energy policy of 100% RPS cost effectively by 2045.
- Allowed independent power producers to sell electricity directly to end users will likely benefit a few large-load customers at the expense of all other customers who may have to pay for all the cost of the current infrastructure while impeding the utilities' ability to pursue 100% renewable energy by 2045.
- May have resulted in the degradation of service reliability as the utility would not be able to negotiate to change operating requirements and project design to protect the system. The utilities need to be involved in setting operational reliability standards to assure system reliability.
- Created winners and losers between independent power producers – those who sell directly to a select group through wheeling vs. those currently with purchased power agreements with the utilities or currently negotiating Power Purchase Agreements with the utility.

However, this bill is unnecessary in that the University can develop a microgrid plan without legislation and can report its finding back to the Legislature as well.

Hawaiian Electric has been actively working with the UH System Administration on options to help them achieve their energy and sustainability goals, including how they might effectively develop renewable energy systems on their lands. We are seeking win-win solutions that (1) simultaneously help the University and our broader community of energy customers reach their sustainability and energy cost management goals, (2) can be done in a manner that upholds the reliability and

safety of electric service, and (3) do not unfairly shift costs to other customers.

These should be fundamental requirements for any microgrid plan that the University develops.

Thank you for this opportunity to submit written testimony.



**Testimony to the Senate Committee on Commerce, Consumer Protection
and Health, and the Senate Committee on Ways and Means
Thursday, March 30, 2017 at 9:30 A.M.
Conference Room 211, State Capitol**

**RE: HOUSE BILL 848 HD2 SD1 RELATING TO ENERGY MODERNIZATION
AT THE UNIVERSITY OF HAWAII SYSTEM**

Chairs Baker and Tokuda, Vice Chairs Nishihara and Dela Cruz, and Members of the Committees:

The Chamber of Commerce Hawaii ("The Chamber") **opposes** HB 848 HD2 SD1, which requires UH to develop a microgrid plan for one demonstration project at any property owned, leased, or controlled by UH; authorizes UH to select the location for the project. Requires UH to report to the legislature.

The Chamber is Hawaii's leading statewide business advocacy organization, representing about 1,600+ businesses. Approximately 80% of our members are small businesses with less than 20 employees. As the "Voice of Business" in Hawaii, the organization works on behalf of members and the entire business community to improve the state's economic climate and to foster positive action on issues of common concern.

As defined in the bill, "microgrid" means a localized electrical system with distributed energy resources, powered by a renewable energy system, as defined in this section, that may include energy storage, generation, or both, to serve interconnected loads of one or more persons or buildings within clearly defined electrical boundaries, and that acts as a single controllable entity with respect to the grid and can:

- (1) Include several adjacent or nearby properties having different tax map key designations; and
- (2) Operate either independently of or in parallel with the utility grid."

Based on this definition, it would appear that the bill allows any public higher education institutions to use existing utility lines and infrastructure to transfer the energy produced to other users without compensation or coordination with the owners of the utility infrastructure.

Furthermore, while the bill proposes to exempt the microgrid from PUC regulation, Section O, (v) of the bill provides the following:

(v) An electric utility may not charge microgrids standby service rates or similar fees and charges for interconnection into the electric utility system; provided that the educational institution shall pay to the electric utility at established rates filed with, and approved by, the



Chamber of Commerce HAWAII

The Voice of Business

public utilities commission: (1) charges for the use of any electricity from the electric utility and (2) either lease rent or similar charge for the use of, or the cost to, install electric lines and facilities to transport electricity from the power source to the microgrid and the microgrid users' electrical systems.

It would appear that the proper venue to discuss how a public higher educational institution could operate a “microgrid” in conjunction with the existing utility infrastructure should be with the Public Utilities Commission.

For these reasons, we request that this bill be held and appreciate the opportunity to express our views on this matter.

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 28, 2017 10:38 AM
To: CPH Testimony
Cc: sue.leeloy@hawaiicounty.gov
Subject: *Submitted testimony for HB848 on Mar 30, 2017 09:30AM*

HB848

Submitted on: 3/28/2017

Testimony for CPH/WAM on Mar 30, 2017 09:30AM in Conference Room 211

Submitted By	Organization	Testifier Position	Present at Hearing
Council Woman Sue Lee Loy	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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