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**TO THE HOUSE COMMITTEE
ON CONSUMER PROTECTION & COMMERCE**

**THE TWENTY-SEVENTH LEGISLATURE
REGULAR SESSION OF 2013**

**MONDAY, FEBRUARY 25, 2013
2:30 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. 810, H.D. 1 - RELATING TO ELECTRIC SYSTEMS.

DESCRIPTION:

This measure proposes to authorize the State of Hawaii Public Utilities Commission ("PUC") to consider the value of implementing advanced grid modernization technologies throughout the State.

POSITION:

The Division of Consumer Advocacy ("Consumer Advocate ") strongly supports the measure and offers the following comments.

COMMENTS:

In achieving the State's ambitious goals under the Hawaii Clean Energy Initiative, the State's various electric utilities will require the installation of many new pieces of hardware, software, and instrumentation that modernizes and improves the systems that deliver electric utility service to customers throughout the State. In assistance of

House Bill No. 810, H.D. 1
House Committee on Consumer Protection & Commerce
Monday, February 25, 2013, 2:30 p.m.
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that end, H.B. No. 810, H.D. 1 proposes to allow the PUC to consider the value that various equipment, facilities, processes, products, and systems will have on improving the reliability, resiliency, flexibility, and/or efficiency of the State's electrical generation and delivery infrastructures affected by the higher and higher contributions of renewable energy resources to the State's various electric utility systems. H.B. No. 810, H.D. 1 clarifies the policy of the State with respect to grid infrastructure improvements and gives the PUC legislative guidance as to its duties and deliberations concerning the implementation of advanced grid modernization technologies throughout the State. As part of the Administration's legislative package for the Twenty-Seventh Legislature of the State of Hawaii, the Consumer Advocate strongly supports the passage of this measure and asks that the Committee approve this bill for consideration by the entire Legislature.

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 CONSUMER PROTECTION & COMMERCE

FEBRUARY 25, 2013
2:30 p.m.

MEASURE: H.B. No. 810, H.D. 1
TITLE: Relating to Electric Systems

Chair McKelvey and Members of the Committee:

DESCRIPTION:

This measure directs the Public Utilities Commission to consider in its deliberations the value of employing advanced grid modernization technology (“AGMT”) to improve and enhance the State’s electrical systems and infrastructure. This bill also defines “advanced grid modernization technology” to encompass a host of current and developing technologies and methods to ensure Hawaii’s grids continue to respond to evolving energy needs.

POSITION:

The Commission strongly supports H.B. No. 810, H.D. 1 and would like to offer the following comments.

COMMENTS:

This measure would provide valuable legislative guidance and support to the Commission in evaluating the various technologies and methodologies employed by utilities to improve the reliable and efficient operations of Hawaii’s electrical grids. AGMT, when appropriately applied, can provide essential grid support capabilities that can drastically improve grid communications, bolster electric system reliability, and support operational efficiencies. Without such technologies and methodologies, the State may be hindered in developing the infrastructure needed to reach its clean energy mandates. The Hawaii Clean Energy Initiative Road Map for 2011 has recognized this

point and has noted that smart grid technologies, as included within AGMT, are “highly critical” early stage technologies needed to enable the State to meet its Renewable Portfolio Standards requirements.¹

Thank you for the opportunity to testify on this measure.

¹See HCEI Road Map 2011; Braccio and Finch, Booz Allen Hamilton, Inc.; prepared by the National Renewable Energy Laboratory of the United State Department of Energy; August 2011; page 8.



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

NEIL ABERCROMBIE
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RICHARD C. LIM
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Statement of
RICHARD C. LIM
Director

Department of Business, Economic Development, and Tourism
before the

HOUSE COMMITTEE ON CONSUMER PROTECTION AND COMMERCE

Monday, February 25, 2013

2:30 p.m.

State Capitol, Conference Room 325

in consideration of

HB 810, HD1

RELATING TO ELECTRIC SYSTEMS.

Chair McKelvey, Vice Chair Kawakami, and Members of the Committee.

The Department of Business, Economic Development & Tourism (DBEDT) supports HB 810, HD1 to establish a policy for the State of Hawaii to support the implementation of advanced grid modernization technology.

Enabling the Public Utilities Commission to consider the value of improving electrical generation, transmission, and distribution systems and infrastructure may facilitate more robust solutions to provide reliable power and enable the grid to accept increased levels of renewable energy.

DBEDT respectfully defers to the Public Utilities Commission on the development and administration of this regulatory measure.

Thank you for the opportunity to testify on HB 810, HD1.

Testimony before the House Committee On Consumer Protection & Commerce

**By Marc M. Matsuura
Manager
Construction and Maintenance Department
Hawaiian Electric Company, Inc.**

**Monday, February 25, 2013
2:30 pm, Conference Room 325**

House Bill 810, HD 1 – Relating to Electric Systems

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

My name is Marc Matsuura and I am testifying on behalf of the Hawaiian Electric Company and its subsidiaries, Hawaii Electric Light Company and Maui Electric Company in support of HB 810, HD 1. The purpose of the bill is to establish a policy for the State for the implementation of advanced grid modernization technology. We are in support this measure.

The requirements of Hawaii's island grid systems are changing with the addition of renewable energy resources and new types of electric loads. Many of these changes are occurring at the edge of the grid at customers' homes and on the distribution system in the form of distributed generation and electric vehicles. As the grid evolves, greater information and control will be needed at the locations of these distributed energy resources to manage the grid more efficiently and effectively. In addition, customers are more technologically sophisticated now than in the past and have greater expectations for quality and service. As such, the utilities will need to work towards developing the functional characteristics that improve the operational capability of the Hawaii systems that are mentioned in the bill.

Thank you for the opportunity to testify on this matter.



Hawaii Solar Energy Association
Serving Hawaii Since 1977

Before the House Committee on Consumer Protection & Commerce
February 25, 2013, 2:30 AM, Conference Room 325
HB 810 HD 1: RELATING TO ELECTRICAL SYSTEMS

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

On behalf of the Hawaii Solar Energy Association (HSEA), I would like to testify **in strong support for HB 810 HD 1**, which authorizes the Public Utilities Commission to consider the value of implementing advance grid modernization technology in the state.

Solar is key to our Green Energy Future

As we all know, Hawaii is dangerously dependent upon imported fossil fuels, and the cost and uncertainty of fossil fuels will only increase. Recent reports have indicated that oil may reach \$180/barrel or more by 2020, and scientists have found that climate change is occurring more quickly than generally believed, with the most current data showing that the Antarctic is warming three times the predicted rate. Transforming our electrical grid to a green energy infrastructure will bring both added security and stability to our state's economy, and also contribute to an overall reduction of greenhouse gasses for everyone.

The grid is the weak link

Hawaii has made tremendous progress in meeting its clean energy goals. In its 2011 Renewable Portfolio Standard Status Report, the Utility reports that installs from net energy metering alone were 29.7 MW, more than double 11.5 MW from 2010. 2012 will show an even larger gain. However, installation of non-utility scale PV on many circuits, especially on Maui, has become difficult as the number of renewables has reached the 15% saturation limit. Once this happens, an expensive study must be performed by the utility customer. And even then, installation is not guaranteed, in spite of relaxed standards in some areas implemented just this last year. Utility scale projects have similar concerns. Simply put, in order to move ahead with our clean energy goals, we need an updated electrical grid that can easily accept the latest technology. This bill would give a mandate to the PUC to put the question of grid upgrades front and center.

Thank you for the opportunity to testify.

Leslie Cole-Brooks
Executive Director
Hawaii Solar Energy Association



HOUSE COMMITTEE ON CONSUMER PROTECTION & COMMERCE

February 25, 2013, 2:30 P.M.

Room 325

(Testimony is 1 page long)

TESTIMONY IN STRONG SUPPORT OF HB 810 HD1

Chair McKelvey and members of the Consumer Protection & Commerce Committee:

The Blue Planet Foundation strongly supports HB 810 HD1, authorizing the Public Utilities Commission to consider the value of implementing advanced grid modernization (“smart grid”) technology in the State. This measure will provide policy guidance to the Commission to help them weigh the often competing objectives in their deliberations. We believe enactment of HB 810 HD1 will accelerate Hawaii’s transition to a clean energy future.

Hawaii’s 1890s style power grid is a barrier to the clean energy revolution. Currently, electricity flows in one direction: from the power plant to your home or business. This is much like television in the 1960s. When you turned on the TV, you watched whatever one of the three networks was broadcasting. You couldn’t store the broadcast and you couldn’t contribute your own content. That’s roughly how our power grid operates today.

To take advantage of distributed and diversified sources like solar, wind, and wave, the grid has to become smarter and have the capacity to store electricity. It will resemble today’s Internet—where distributed servers both send and receive packets of information—and less like yesterday’s commercial television. Such a self-aware, robust smart grid will instantaneously adjust to shifts in wind strength or cloud cover over solar, balancing energy loads on the other side of the wire and drawing on stored energy when needed.

House Bill 810 HD1 requires that the Commission consider the value of modernizing Hawaii’s electricity grid to accommodate more clean energy sources. Blue Planet fully supports this policy.

Thank you for this opportunity to testify.

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Sierra Club Hawai'i Chapter

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HOUSE COMMITTEE ON CONSUMER PROTECT & COMMERCE

February 25, 2013, 2:30 P.M.
(Testimony is 1 page long)

TESTIMONY IN SUPPORT OF HB 810, HD1

Aloha Chair McKelvey and members of the Committee:

The Sierra Club, Hawaii Chapter, with over 10,000 dues paying members and supporters statewide, respectfully **supports** HB 810 HD1. The bill is a smart policy signal for the Public Utilities Commission to build a modern grid infrastructure that can compliment renewable energy production by making better use of fluctuating power sources and advance energy efficiency through the use of smart meters.

A smart grid allows a utility to communicate with many devices plugged into the grid, as well as power sources. Each device on the network can be given sensors to gather data (power meters, voltage sensors, fault detectors, etc.), plus two-way digital communication between the device in the field and the utility's network operations center. A key feature of the smart grid is automation technology that lets the utility adjust and control each individual device or millions of devices from a central location.

The Sierra Club strongly believes the success of our aggressive clean energy goals will only be accomplished with significant improvements to our existing grid. This measure

Mahalo for the opportunity to testify.

kawakami2 - Rise

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, February 20, 2013 11:17 PM
To: CPCtestimony
Cc: mendezj@hawaii.edu
Subject: *Submitted testimony for HB810 on Feb 25, 2013 14:30PM*

HB810

Submitted on: 2/20/2013

Testimony for CPC on Feb 25, 2013 14:30PM in Conference Room 325

Submitted By	Organization	Testifier Position	Present at Hearing
Javier Mendez-Alvarez	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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