

# SB 1040

Measure Title: RELATING TO ELECTRIC SYSTEMS.

Report Title: Grid Infrastructure Modernization Technology; Electric Utilities; Electric Systems; Public Utilities Commission

Description: Authorizes the Public Utilities Commission to consider the value of implementing advanced grid modernization technology in the State.

Companion: [HB810](#)

Package: Gov

Current Referral: CPN/TEC, WAM

Introducer(s): KIM (Introduced by request of another party)

<a href="#">Sort by Date</a>		Status Text
1/24/2013	S	Introduced.
1/24/2013	S	Passed First Reading.
1/24/2013	S	Referred to CPN/TEC, WAM.
1/30/2013	S	The committee(s) on CPN/TEC has scheduled a public hearing on 02-06-13 9:45AM in conference room 229.



NEIL ABERCROMBIE  
GOVERNOR

SHAN S. TSUTSUI  
LT. GOVERNOR

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TO THE SENATE COMMITTEES  
ON COMMERCE AND CONSUMER PROTECTION  
AND TECHNOLOGY AND THE ARTS

THE TWENTY-SEVENTH LEGISLATURE  
REGULAR SESSION OF 2013

WEDNESDAY, FEBRUARY 6, 2013  
9:45 A.M.

TESTIMONY OF JEFFREY T. ONO, EXECUTIVE DIRECTOR, DIVISION OF  
CONSUMER ADVOCACY, DEPARTMENT OF COMMERCE AND CONSUMER  
AFFAIRS, TO THE HONORABLE ROSALYN H. BAKER  
AND THE HONORABLE GLENN WAKAI, CHAIRS,  
AND MEMBERS OF THE COMMITTEES

SENATE BILL NO. 1040 - 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.

Senate Bill No. 1040  
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Senate Committee on Technology and the Arts  
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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 that end, S.B. No. 1040 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. As noted by the PUC in its testimony to this Committee, S.B. No. 1040 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  
SENATE COMMITTEES ON  
COMMERCE & CONSUMER PROTECTION  
AND  
TECHNOLOGY & THE ARTS

FEBRUARY 6, 2013  
9:45 a.m.

**MEASURE:** S.B. No. 1040  
**TITLE:** Relating to Electric Systems

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

**DESCRIPTION:**

S.B. No. 1040 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 S.B. No. 1040 and would like to offer the following comments.

**COMMENTS:**

S.B. No. 1040 provides 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.<sup>1</sup>

The functional characteristics of AGMT, as described in this measure, help to clarify the policy of the State with respect to grid infrastructure improvements and the implementation of useful and cost-effective available electrical system technologies and processes to give guidance to the Commission in performing its regulatory deliberations and related functions.

Thank you for the opportunity to testify on this measure.

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<sup>1</sup>See 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.

**Testimony before the Senate Committee On  
Commerce & Consumer Protection and the  
Senate Committee on Technology & the Arts**

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

**Wednesday, February 6, 2013  
9:45 am, Conference Room 229**

**SB 1040 – Relating to Electric Systems**

Chairs Baker & Wakai, Vice Chairs Galuteria & Nishihara, and Members of the Committees:

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 SB 1040. 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.