



SENATE COMMITTEE ON WAYS AND MEANS

February 22, 2013, 9:00 A.M.

Room 211

(Testimony is 1 page long)

TESTIMONY IN STRONG SUPPORT OF SB 1040

Chair Ige and members of the Ways and Means Committee:

The Blue Planet Foundation strongly supports SB 1040, 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. This measure is not a mandate to build the “smart grid;” it is direction to the Commission to consider its merits in their decision making. We believe enactment of SB 1040 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.

Senate Bill 1040 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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Written Comments before the Senate Committee On Ways and Means

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

**Friday, February 22, 2013
9:00 am, Conference Room 211**

SB 1040 – Relating to Electric Systems

Chair Ige, Vice Chair Kidani, and Members of the Committee:

My name is Marc Matsuura and I am submitting these comments 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 of 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.



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TESTIMONY IN SUPPORT OF SB 1040 WITH A PROPOSED AMENDMENT

Aloha Chair Ige and members of the Committees:

The Sierra Club, Hawaii Chapter, with over 10,000 dues paying members and supporters statewide, respectfully **supports** SB 1040. 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. We recommend adding language indicating the PUC can increase the rate of return on these types of investments so as to provide an even stronger policy signal that we prefer our utilities to invest their limited capitol on improving the grid, rather than investing in more power production facilities. Perhaps a new line after line 22 on page 2, stating "The commission may consider a higher rate of return if necessary to ensure investment in advanced grid modernization technology."

Mahalo for the opportunity to testify.