



LATE

SENATE COMMITTEE ON WAYS AND MEANS

February 25, 2011, 9:00 A.M. Room 211 (Testimony is 5 pages long)

TESTIMONY IN SUPPORT OF SB 1482

Chair lge and members of the Committee:

The Blue Planet Foundation supports SB 1482, a measure which provides the public utilities commission (PUC) additional guidance and authority in considering energy efficiency as well as the implications of fossil fuels, fuel price volatility, greenhouse gas emissions, and long-term costs in their decision making.

The PUC has a number of critical dockets before them that will determine much of Hawaii's energy future. Blue Planet feels that it is essential that the PUC be given broad discretion in considering the myriad implications of Hawaii's reliance on fossil fuels in their decision making. We believe such guidance and authority to the PUC will result in more optimal energy planning for Hawaii's future.

Blue Planet believes, however, that further policy changes are necessary for the PUC to effectively navigate Hawaii's transition to clean energy. We will iterate some of those changes here and hope that they can be incorporated into future drafts of this measure. Blue Planet is happy to provide this Committee amended language to accomplish the legislative action described below.

Challenges requiring policy solutions within the Commission

Navigating the major transition to Hawaii's clean energy future requires a significant change in the regulatory structure. New policies are needed to align utility profitability with Hawaii's clean energy future, provide independent oversight of grid reliability and interconnection, and other changes.

Hawaii's electric utilities are currently regulated such that their fiduciary responsibility to advance the interests of their shareholders puts their goals at odds with the public interest in moving as rapidly as possible toward energy self-sufficiency. Existing laws give the utility little economic incentive to pursue clean energy projects. Long-term utility profits are tied mostly to capital investments that the utility makes, encouraging them to purchase expensive new plants or undertake major upgrades to existing ones. Since third-party renewable energy projects displace the need for utility investments, and energy efficiency reduces electricity use, the utility does not profit directly from such clean energy initiatives.

Further, adding substantial amounts of renewable energy and energy efficiency will render existing fossil generation facilities useless, leaving the utility holding the bag with "stranded" investments on their books. Finally, when the utility purchases power from independent power producers, like large solar farms, the utility is exposed to additional financial risk (something it can't afford, given its current credit rating of triple-B minus, one notch above junk bond status). These institutional barriers—decreasing sales on top of increasing costs to enable a system that doesn't help their bottom line—makes change incredibly difficult for the utility.

What's needed here is "institutional acupuncture." The Public Utilities Commission (PUC) should be directed to implement a "performance incentive mechanism" to reward the utility for achieving clean energy goals. This will give Wall Street reasons to invest in the utility and help fund Hawaii's clean energy transition. The PUC should also be given guidance to adopt a policy allowing for the recovery of the utility's "stranded assets," preventing these facilities from becoming anchors that restra in clean energy progress.

Changes also need to be m ade on a broader scale. Haw aii's current utility regulatory structure is a holdover from the 19th century. A vertically integrated monopoly that controls all aspects of electricity generation, transmission, and distribution no longer makes sense in a world where entrepreneurial independent power producers (including homeowners and business owners), enabled by technological advances, can develop Hawaii's renewable energy resources.

Hawaii's electric utilities control the economic conditions and pace at which clean energy investments occur in Hawai'i. The following problems arise:

- Market signals. There is a lack of transparent market price signals in Hawai'i because renewable energy projects can sell power only to utilities. This slows and hampers clean energy investment.
- Utility control. Utilities manage the price, terms and conditions and pace at which renewable projects are developed through control of Power Purchase Agreement (PPA) negotiations and competitive bidding processes.
- New technologies. Utilities determine when, at what pace, and the terms and conditions new technologies can be utilized to accommodate additional renewable generation (e.g., Demand Response and storage, which can be used to provide ancillary services and supply capacity).

Change cannot and will not happen under the existing regulatory structure. Therefore, changes to the state's electricity markets must be undertaken with the goals of removing utility control over who gets to generate electricity and replacing it with control by a neutral entity the goal of which is to establish rules that will leads to energy self-sufficiency for Hawaii.

Regulatory solutions within the commission to accelerate clean energy

Policy solutions are available—and modeled elsewhere—to achieve the important regulatory objectives of the commission. These include:

- Establishment of a formal independent process to establish reliability and interconnection standards for clean energy;
- Legislative policy direction supporting the recovery of costs for "stranded assets, to create a "performance incentive mechanism" to reward the utility for achieving clean energy goals;
- Unbundling ancillary services and perhaps electricity transmission and generation; and
- Adequate funding, staffing, and resources for the commission.

Independent reliability and interconnection standards

Ensuring reliable electricity while enabling private clean energy producers to access Hawaii's power grids requires the establishment of formal, objective, and verifiable reliability and interconnection standards. This is best achieved by replacing utility control of grid access with control by a neutral entity tasked with establishing reliability and interconnection rules that encourage clean energy development in all appropriate forms. Such a third-party oversight model for grid access has succeeded elsewhere in democratizing power production.

Hawaii's main utility is the only major electric utility system in the United States that is not subject to any formal and transparent bulk power electric reliability standards. Hawai'i was exempted from federal mandatory electric reliability standards applicable to all mainland electric utilities established by the North American Electric Reliability Corporation (NERC) and approved by the Federal Energy Regulatory Commission (FERC). Today there are no reliability standards upon which to objectively assess impact of additional renewable energy projects, such as new distributed solar projects.

Hawaii's main utility's systems are not currently planned and operated according to NER Cequivalent reliability standards. Virtually all electric systems in the continental United States operate under NERC reliability standards. Hawaii's utility's systems are basically the same as other United States systems operating under NER C reliability standards insofar as all systems must maintain adequate voltage, balance supply and demand in real time, and maintain system stability. The experience of the Electricity Reliability Council of Texas and New Zealand demonstrates that formal reliability standards are appropriate and utilized not only in North America, but on isolated electric grids similar to those in Hawai'i.

Historically, a compelling need did not exist for formal bulk power electric reliability standards in Hawai'i, as Hawai'i was not electrically interconnected with the mainland, nor were individual island grids interconnected to each o ther. But with the increase in distributed power systems, the need for reliability and interconnection standards is clear.

Formal bulk power electric reliability standards and measures are essential to objectively assess grid reliability impacts for any electric utility and to insure reliable grid operation. The standards will:

- Provide an objective basis by which to measure the level of and trend in system reliability in general; and
- Provide an objective basis to measure the reliability impacts, if any, of incorporating increasing quantities of intermittent renewable energy resources.

Due to the absence of formal reliability standards, the Hawaii's main utility is at present under no requirement to publish official reports concerning compliance with standards. Reporting on compliance with formal reliability standards will allow verification and increased knowledge and understanding about reliability issues by the Public Utility Commission (PUC) and stakeholders.

Hawaii's clean energy transformation requires formal and transparent bulk power electric reliability standards. Since the potential exists for trade-offs between system reliability and greater utilization of renewable energy, it is essential to have bulk power electric reliability standards in place to provide a benchmark to measure over time the impacts of additional renewable energy integration. Further, formal and transparent electric reliability standards provide the reliability and operational rules of the road for various stakeholders: utilities, independent power producers, renewable energy developers, regulators, and others.

The process used by NERC to establish and maintain bulk power reliability standards is open, transparent and utilizes significant stakeholder involvement to develop and modify the standards. The hallmark of the NERC standard-setting process is that an entity other than the local utility manages the process and maintains an open and transparent process with substantial stakeholder participation. This also ensures that interested parties that may make important substantive contributions to the standards and capacity determinations are not excluded from the process.

Reliability standards could be established by an independent council attached to the PU C, through a contract administered similar to the Public Benefits Fund for efficiency, or some other arrangement—as long as the standards are developed in a formal, objective, and independent manner. These standards for grid interconnection should then apply to all producers of clean energy who wish to access the electricity grid.

Aligning utility incentives with clean energy

To encourage greater utility support for integrating non-fuel renewable energy onto Hawaii's electricity grids, a policy should be established to allow for the recovery of the utility's "stranded assets"—existing power plants and other fossil facilities—preventing these facilities from becoming anchors that restrain clean energy progress. Further, the PUC should be required to consider a "performance incentive mechanism" to reward the utility for achieving clean energy goals. This will align the financial decision making within the organization with achievement of Hawaii's aggressive clean energy goals. It will also give Wall Street reasons to invest in the utility and help fund Hawaii's clean energy transition.

Finally, the PUC should be required to direct the electric utilities to "unbundle" or separate ancillary services and procure those services from non-fossil fuel sources. The Federal Energy Regulatory Commission (FERC) defines ancillary services as those "necessary to support the transmission of electric power from seller to purchaser given the obligations of control areas and transmitting utilities within those control areas to maintain reliable operations of the interconnected transmission system." Unbundling of such ancillary services is commonplace in other utility markets. This measure will create competitive markets that will most efficiently determine the suppliers and prices for many ancillary services. The bill also helps to foster Hawaii's clean energy future by requiring electric utilities to purchase ancillary services derived from sources other than fossil fuel (including but not limited to energy storage and demand response measures)—if feasible and reasonably economical.

Of course, none of the important PUC policy and regulatory work will be complete without proper funding and resources. Blue Planet fully supports allocating 100% of the Public Utilities Commission special fund to the PUC.

Please forward SB 1482 with these added critical policy changes to help Hawai'i create a robust, modern power system that fosters innovation and puts Hawaii's clean, indigenous, and renewable energy sources to work for Hawaii's people. *We are more than happy to work with this Committee and provide suggested amendments to achieve these objectives.*

Thank you for the opportunity to testify.

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PATRICIA McMANAMAN INTERIM DIRECTOR PANKAJ BHANOT DEPUTY DIRECTOR

LATE

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February 25, 2011

<u>MEMORANDUM</u>

- TO: Honorable David Y. Ige, Chair Senate Committee on Ways and Means
- FROM: Patricia McManaman, Interim Director

SUBJECT: SB 127: MAKING A GRANT FOR THE ESTABLISHMENT AND OPERATION OF A COMPREHENSIVE DEAF CENTER

Hearing: Friday, February 25, 2011, 9:00 a.m. Conference Room 211, State Capitol

PURPOSE: The purpose of this bill is to appropriate funds to the department of human services as a grant for the establishment of a comprehensive services deaf center.

DEPARTMENT'S POSITION: The Department of Human Services (DHS) supports the overall concept of this bill as it includes initiatives supportive of our goals and objectives but we are concerned about the cost implications generated by this proposal and an adverse impact to the priorities as indicated in the Executive Biennium Budget.

DHS currently has a Memorandum of Agreement with the University of Hawaii, Kapiolani Community College Deaf Center/Gallaudet University Regional Center to provide deaf adjustment services and planning, research and grant writing services for laying the groundwork for a comprehensive vocational rehabilitation center for deaf, hard of hearing and deaf-blind persons. The scope of services includes research and applying for grants to secure funding to finance a Comprehensive Vocational Rehabilitation Center for Deaf, Hard of Hearing and Deaf-Blind Individuals (CVRC). A final report is due to the DHS at the end of the project period on September 30, 2011.

It seems to be premature to authorize spending for this project without the findings and recommendations of the final report.

Thank you for this opportunity to testify.