

NEIL ABERCROMBIE
GOVERNOR

BRIAN SCHATZ
LT. GOVERNOR



KEALI'I S. LOPEZ
DIRECTOR

JEFFREY T. ONO
EXECUTIVE DIRECTOR

**STATE OF HAWAII
DIVISION OF CONSUMER ADVOCACY
DEPARTMENT OF COMMERCE AND CONSUMER AFFAIRS**

335 MERCHANT STREET, ROOM 326

P.O. Box 541

HONOLULU, HAWAII 96809

Phone Number: 586-2800

Fax Number: 586-2780

www.hawaii.gov/dcca/dca

TO THE HOUSE COMMITTEE ON ENERGY AND ENVIRONMENTAL PROTECTION

THE TWENTY-SIXTH LEGISLATURE
REGULAR SESSION OF 2012

THURSDAY, FEBRUARY 2, 2012
10:00 AM

TESTIMONY OF JEFFREY T. ONO, EXECUTIVE DIRECTOR,
DIVISION OF CONSUMER ADVOCACY, DEPARTMENT OF COMMERCE AND
CONSUMER AFFAIRS, TO THE HONORABLE DENNY COFFMAN
AND MEMBERS OF THE COMMITTEE

HOUSE BILL NO. 2400 - RELATING TO PUBLIC UTILITIES

DESCRIPTION:

This measure proposes to:

- Limit the ability of an electric utility company to own or operate both the means to produce and deliver electricity to the public;
- Requires that an electric utility company that delivers electricity must obtain the electricity through purchase power agreements, but may not enter into a purchase power contract with an affiliate;
- Requires that the Public Utilities Commission ("Commission") employ certain ratemaking principles to allow two or more electric utility companies that may be held by the same financial holding company the opportunity to earn a fair rate of return;
- Requires the Commission to place a priority on the development of firm and distributable geothermal-based electricity; and
- Other, non-substantive changes.

POSITION:

The Division of Consumer Advocacy opposes this measure and offers comments.

COMMENTS:

On December 30, 1996, the Commission filed Order No. 15285, thereby opening Docket No. 96-0493. In Docket No. 96-0493, the Commission set forth various objectives related to the feasibility of wholesale and retail competition in Hawaii. Significant efforts and analyses were conducted by the parties to the docket. Part of that analysis included considering whether it was cost effective and feasible to require divestiture and/or separation of the generation and delivery functions of vertically integrated electric utility companies (i.e., electric utility companies that were responsible for all aspects of electricity service from the generation to delivery). As concluded after years of effort, the Commission reached various conclusions, including the finding that divestiture and/or separation of the functions required to deliver service to customers was not warranted.

While the Consumer Advocate recognizes that a number of industry changing events have occurred since the Commission filed its Decision and Order No. 20584 on October 21, 2003 in Docket No. 96-0493, the proposed legislation would entail a significant paradigm shift that should not be taken lightly that would definitely affect every aspect of the provision of electricity, including, but not limited to, the bills that customers pay and the quality and reliability of the electric service provided to the customers. As found by the Commission in 2003, "[e]lectric industry restructuring should only be initiated if it is in the public interest. Developments in other states indicate that, at best, implementation of retail access [in Hawaii] would be premature. In addition, projections of any potential benefits of restructuring Hawaii's electric industry are too speculative and it has not been sufficiently demonstrated that all consumers in Hawaii would continue to receive adequate, safe, reliable, and efficient energy services at fair and reasonable prices under a restructured market, at this time."

This measure also proposes to require the Commission to place a priority on electricity generated from geothermal sources. The Consumer Advocate has concerns with this requirement as well. Any requirement to prioritize the development of any resource as compared to other alternatives may lead to decisions that may not necessarily be the most advantageous in terms of cost-effectiveness, quality or other measures normally expected or targeted for electric services.

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House Committee on Energy and Environmental Protection
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There are various technical and economic issues involved with the evaluation of whether the public interest would be served by this measure. The Consumer Advocate is concerned with the potential adverse effects on customers if this measure were to pass.

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 ENERGY & ENVIRONMENTAL PROTECTION

FEBRUARY 2, 2012

MEASURE: H.B. No. 2400

TITLE: Relating to Public Utilities

Chair Coffman and Members of the Committee:

DESCRIPTION:

This measure proposes to:

- Redefine “electric utility company” under HRS § 269-91 to exclude companies engaging in the production of electricity;
- Limit electric utility companies from owning or operating both electricity generation and transmission/distribution services;
- Require electric transmission/distribution utilities to acquire all electricity through power purchase agreements (“PPA”), but also limits those utilities from entering into PPAs with any “affiliated interest”;
- Allow the Commission to decide PPA rates if entering parties cannot first agree;
- Amend the definition of a “public utility” under HRS § 269-1 to exclude entities engaged in the production of power;
- Require the Commission to set “just and reasonable” statewide rates for multiple utility companies owned by the same financial holding company, and sets out various components of the rates;
- Require the Commission and utilities to prioritize the use of geothermal-based electricity in replacing existing fossil fuel-based generators;
- Require the Commission to direct utilities to acquire the “lowest cost, electrical grid-safe” power from non-fossil fuel sources “prior to” electricity from fossil fuels;
- Preserve existing contracts when provisions of this measure are in conflict; and
- Exempt electric utility companies in the State qualifying as 501(c)(12) entities under the Internal Revenue Code from the provisions of this measure.

POSITION:

While the Commission appreciates this measure's intent to quickly develop and utilize renewable electric energy resources in Hawaii, the Commission has serious concerns about the inadvertent consequences that may occur, as well as the eventual impact on the Hawaii electricity ratepayer and the State's progress toward fulfilling its clean energy mandates. The Commission would like to submit the following comments for the Committee's consideration.

COMMENTS:

The Commission does not believe that there is any new evidence to significantly alter its previous findings from investigations into electricity restructuring that would justify the divestiture or separation of utility functions. The Commission is also concerned that this measure will create a regulatory environment that will limit the Commission's ability to make the most prudent and wise decisions. Compelling utilities to divest themselves of generation operations and directing the prioritization of non-fossil fuel energy sources appears to move the State in a direction where we would be unable to weigh and take into consideration the most reasonable, cost effective energy decisions available, regardless of existing generation methods.

The Commission is taking the necessary steps to achieve maximum renewable energy generation within a reasonable and satisfactory timeframe. Several competitive bid requests for proposals ("RFP") for renewable electricity generation are expected to be issued this year, ultimately subject to final Commission oversight and approval, that will greatly increase the number of third-party renewable energy generation projects in the State.

- Hawaiian Electric Company, Inc. ("HECO") currently plans to issue in March of this year a formal RFP for a minimum 200MW of as-available renewable energy to be generated on or to be delivered to Oahu. The RFP notes that any neighbor island bids in this RFP must include or be partnered with an accompanying interisland electric transmission cable, thus ensuring that the entire State will be able to successfully benefit from various local renewable energy resources.

- In addition, HECO also plans to begin the RFP process this year for 300MW of firm renewable energy for Oahu to serve that island's electrical consumption.
- Since the beginning of fiscal year ("FY") 2011-2012, the Commission has approved over 90MW of renewable energy projects throughout Hawaii, including a diverse set of renewable resources ranging from solar to geothermal to wind energy. This is a nearly 80% increase over projects approved by the Commission throughout all of FY 2010-2011.

In addition, the Commission is working to increase the resiliency of the Hawaii electric system through programs aimed at improving system reliability. The goal of these efforts is to establish guidelines to help move the maximum level of renewable resources onto the system, while still preserving grid stability.

- The Reliability Standards Working Group ("RSWG") is an ongoing collaborative effort between the government, the electric industry, and interested stakeholders, to produce formalized electric reliability standards for the State that will help address many of the uncertainties that currently exist concerning the high penetration of renewable energy onto the grids.
- The 2012 administration package includes legislation – H.B. No. 2525 and S.B. No. 2787, both relating to electricity – that will give the Commission explicit authority over all parties connecting to the electric grid with respect to reliability standards and grid interconnection issues. In addition, this legislation will provide the Commission with the ability to contract for the monitoring and enforcement of reliability- and interconnection-related functions. Like the work of the RSWG, this legislation is intended in part to improve the process for increased requests for the interconnection of new energy resources to the system.
- The revised framework for integrated resource planning ("IRP"), recently adopted by the Commission and set to begin within the coming months, will also serve to evaluate existing system weaknesses and plan for the maximum connection of renewable energy sources onto the grids.

Again, the Commission is concerned that this measure moves the energy sector toward an operating environment which is uncertain and may inadvertently affect utility and independent power producer financing. The approach the Commission is currently undertaking to shore up the reliability of the system is the best way to facilitate the maximum integration of renewable energy resources and directly address new generation interconnection issues.

Though the Commission generally supports the concept of levelized rates, serious consideration should be given to the consolidation of the Hawaiian Electric Companies, rather than through the application of the ratemaking process. The barrier to move forward on this concept appears to be a restriction under Section 142(f) of the Internal Revenue Code with regard to a special purpose revenue bond for electric generation being limited to facilities serving two or fewer contiguous counties.

We thank the Committee for its sincere interest in trying to accelerate the State's progress in implementing its clean energy mandates, but we respectfully request the Committee to hold this measure.

**Testimony before the House Committee on
Energy and Environmental Protection**

H.B. 2400 -- Relating to Public Utilities

**Thursday, February 2, 2012
10:00 am
State Capitol, Conference Room 325**

**Scott W.H. Seu
Vice-President, Energy Resources
Hawaiian Electric Company, Inc.**

Chair Coffman, Vice-Chair Kawakami and Members of the Committee:

My name is Scott W.H. Seu. I am the Vice-President of Energy Resources at Hawaiian Electric Company. I am testifying on behalf of Hawaiian Electric Company (HECO) and its subsidiary utilities, Maui Electric Company (MECO) and Hawaii Electric Light Company (HELCO).

We cannot support this measure due to a number of concerns. While we agree with some of the objectives of the bill – namely the prioritization of lower cost renewable electricity over fossil fuel-based electricity and the development of statewide energy rates to help our customers, together with a focus on transmission, delivery, and network reliability – the specific proposed actions called for in the bill could have unintended consequences of actually increasing the cost of electricity to our customers, not allowing our utilities to invest in renewable energy, and impairing our flexibility to operate our electric grids in a reliable and economic manner.

In fact, the Hawaii Public Utilities Commission ("PUC") previously investigated Electric Competition in Hawaii in Docket No. 96-0493. In its 2003 decision, the PUC conclusions included that: (1) projections of potential benefits from electric restructuring

in Hawaii were too speculative, and (2) it was not demonstrated that all consumers in Hawaii would continue to receive adequate, safe, reliable, and energy efficient services at fair and reasonable prices under a restructured market. The PUC did not find it in the public interest to restructure the electric industry.

The bill also adopts as a premise that the Hawaiian Electric companies are reluctant to open its system to independently owned and operated renewable energy generators. In fact, in just the last few years we have signed new power purchase agreements for almost 200 megawatts of new renewable energy – including wind, solar, geothermal, and waste to energy – and are in the process of negotiating agreements or issuing requests for proposals for hundreds of megawatts more. This year we will issue RFPs to secure significant amounts of renewable energy for Oahu and Maui from a variety of technologies, and for Hawaii Island, from geothermal. By 2020, we estimate 65% of all energy sold by our consolidated family of utilities will come from independent power producers.

Our concerns about this bill do not mean that we are arguing for the status quo; far from it. We will continue to move to replace fossil fuel energy with clean, cost-effective renewable energy with geothermal, biomass, wind, solar, and other technologies. Furthermore we agree it is critical for clear plans to be developed that move us towards our clean energy and energy security goals in an aggressive timeframe. Hawaiian Electric will participate fully and transparently in the Integrated Resource Planning (IRP) process that the Public Utilities Commission is preparing to initiate and will oversee. The IRP process will evaluate a variety of planning scenarios and guide our plans for energy generating resources, considering many of the objectives stated in this bill.

Thank you for the opportunity to testify.



Date: Thursday Feb 2, 2012
Time: 10:00 am
Place: Conference Room 325
Committees: House - EEP

Testimony in Strong Support of HB 2400 - Relating to Public Utilities

Aloha Legislators,

Indigenous Consultants (IC) is a Hawaii based, indigenous LLC owned and operated by Native Hawaiians. It was created to assist indigenous peoples in developing their renewable energy resources in ways that are: Culturally appropriate, environmentally green and sustainable, socially responsible and economically equitable and affordable. For several years the IC has worked with Innovations Development Group in New Zealand and indigenous Maori developing geothermal resources, which are trust assets of Maori Land Trusts. In addition, the IC has acted as a consultant to other indigenous people in Hawaii and Asia who are addressing development of their trust renewable energy resources in ways that; directly benefit their people, bring in revenues, create small business opportunities and ensure fair & affordable rates to consumers, including themselves and their communities.

Indigenous Consultants strongly supports this Bill and thanks Representative Denny Coffman for its introduction. We support this measure because it addresses in a forthright manner a serious problem we have in Hawaii... the negative impact and influence of HEI, which has a monopoly in energy transmission and significant interest in fossil fuel/biofuel energy production in Hawaii. There is a clear conflict of interest that exists with HEI controlling access to the grid for all renewables in a fair way.

For many years we have hoped that HEI would initiate a plan to re-direct its investments away from fossil/biofuel & channel its investment capital to other Hawaii based projects in indigenous renewables. This has not occurred, but this Bill gives us the opportunity to put into place a step-wise plan to achieve this goal.

If this measure passes, HEI will have to divest its interest in fossil fuel and biofuel projects. Will these energy investments leave our State? As our States fossil fuel dependency diminishes, so will the jobs related to fossil fuel production diminish? Will Hawaii be implementing a plan to ensure that new renewable energy jobs will be created to replace those lost job opportunities for our unions & residents?

PO Box 6377 Hilo, Hawaii 96720
Email: mililani.trask@gmail.com
Phone: 808 990 0529

The Bill provides a period of 12 years for its implementation, but does not have a step-by-step plan to facilitate HECO's divestiture while ensuring opportunities for Hawaii's renewable energy sector to grow. This is an omission in the measure that needs to be addressed with amendments.

In order to address this omission, I am recommending that the Committees consider changes & additions to the Bill that would provide a framework for implementation of such a plan under the oversight of our PUC.

These changes would:

1. Require that HEI work with the PUC to implement a plan for its incremental divestment from fossil fuels conditioned on its re-investment into other renewables in our State;
2. EXAMPLE: HEI has 10 years to divest from fossil fuels & biofuels, each year HECO would divest 10% of its fossil fuel portfolio, & it would be required to re-invest these monies in other renewables in the amount of 9.9% of any other renewable project;... OR

NOTE: The ability of the HEI group to re-invest in Hawaii renewables is limited by the "affiliated interest" test (requirement). The test limits investments in projects developed or owned by the utility to 'less than 10%' equity interest. This requirement could be maintained, or it could be waived for a specific period of time in order to facilitate the re-investment plan.

3. EXAMPLE: If we waive the "affiliated interest" limitation for a limited time (If the period is 5 years, HELCO would divest 20% of its funds from fossil fuels and those funds in (up to 20%) in any other renewable projects during that 5 year period. This would allow for HEI to re-invest in Hawaii's expanding renewable energy market but would prevent HEI from acquiring a majority interest in any project.

NOTE: There needs to be some limitation on HEI's ability to re-invest in order to assure that it will not have a significant or majority interest in any 'new' renewable project. We do not want to create new monopolies, but to facilitate re-investment into Hawaii's expanding renewable energy market. I would recommend that the HEO be limited in the amount its re-invests in order to ensure that it does not acquire more than 20%-25% in any other renewable energy project.

Who should help develop & implement this plan? Who should have oversight of progress under this plan? The PUC is the obvious body to oversee this effort and to ensure that divestiture and re-investment occurs in a timely fashion.

This approach would give us a real & tangible plan, with measurable goals & outcomes by which we could gage our progress in moving from fossil fuel

dependency to renewable energy independence. It would allow renewable energy sector jobs to increase, incrementally (project by project) while fossil fuel decrease (incrementally). It would provide a plan that would ensure that energy money from Hawaii will stay in our State as energy investment capital.

Regards,

A handwritten signature in black ink, appearing to read "M. B. Trask", with a long horizontal flourish extending to the right.

Mililani B. Trask



LIFE OF THE LAND

76 North King Street, Suite 203
Honolulu, Hawai`i 96817

Phone: 533-3454; E: henry.lifeoftheland@gmail.com

COMMITTEE ON ENERGY & ENVIRONMENTAL PROTECTION

Rep. Denny Coffman, Chair

Rep. Derek S.K. Kawakami, Vice Chair

DATE: Thursday, February 02, 2012

TIME: 10:00 a.m.

PLACE: Conference Room 325

BILL: HB 2400 RELATING TO PUBLIC UTILITIES

COMMENTS

Aloha Chair Coffman, Vice Chair Kawakami, and Members of the Committee: My name is Henry Curtis and I am the Executive Director of Life of the Land, Hawai`i's own energy, environmental and community action group advocating for the people and `aina for four decades. Our mission is to preserve and protect the life of the land through sound energy and land use policies and to promote open government through research, education, advocacy and, when necessary, litigation.

We wish to thank the introducers of this bill for raising important issues.

We wish to thank the committee for hearing this bill.

The issues are important and need public vetting.

The Public Utilities Commission found that there is an apparent conflict for utilities between selling electricity for profit and encouraging the installation of energy efficiency devices which eat away at the profits. Therefore the Commission established a separate entity, Hawaii Energy, to oversee energy efficiency programs for HECO, MECO and HELCO. We were a party in the PUC proceedings, we were an early supporter of that concept, and we believe the energy efficiency utility (Hawaii Energy) is moving in the right direction.

Similarly, there is an apparent conflict between purchasing the electricity produced within the company and purchasing electricity produced by someone else.

Although regulators often get the blame for the length of time it takes to approve a Power Purchase Contract, in reality, it often takes years or decades, if ever, to get the utility to agree to cut its own production and buy someone's else's electricity.

The bill also gets another issue correct. The PUC often has multiple regulatory proceedings open for similar HECO, MECO and HELCO programs and applications. The whole process would be simplified by having one utility.

Although the idea has been floated as a carrot for the approval of Big Wind, it makes sense to establish a single rate for each class of customers across the islands, for example, a single basic rate for residential customers.

Clearly greater emphasis should be placed on baseload renewable energy. Proven options such as geothermal, waste-to-energy and concentrated solar power can result in rapid increases in renewable energy penetration regardless of the size of the grid or whether it is interconnected.

The price that ratepayers pay for various types of energy should be transparent.

The proposed bill raises all of these important issues that need airing. However, the bill is complex and should not be rushed. Rather it should be debated and refined now and in future sessions.

There are some statements in the bill which are less accurate.

For example, proponents of interisland cable allege that some islands have more intermittent renewable resources than other islands. It is in their self-interest to allege these allegations. It is not in the State interest to blindly agree.

Another example is proponents of firm renewables alleging that intermittent renewable resources can never have penetration levels above 30%. Again, it is in their self-interest to allege these allegations. It is not in the State interest to blindly agree. With modern weather monitoring data collection points, sophisticated control systems on intermittent power systems, grid-based batteries, etc., intermittent renewable resources may be able to play a major role in supplying electricity.

When the PUC opens the next round of Integrated Resource Planning, and various future scenarios are contemplated, the scenario of one transmission company divorced from generation should be analyzed.

Mahalo for encouraging this important discussion.

Henry Curtis

HAWAII RENEWABLE ENERGY ALLIANCE

46-040 Konane Place #3816, Kaneohe, HI 96744 – Telephone/FAX: 247-7753 – Email: wsb@lava.net

Directors

Jody Allione
AES-Solar

Kelly King
Pacific Biodiesel

Matt Stone
Sopogy

Warren S. Bollmeier II
WSB-Hawaii

TESTIMONY OF WARREN BOLLMEIER ON BEHALF OF THE HAWAII RENEWABLE ENERGY ALLIANCE BEFORE THE HOUSE COMMITTEE ON ENERGY AND ENVIRONMENTAL PROTECTION

HB 2400, RELATING TO ELECTRICITY

February 2, 2012

Chair Coffman, Vice-Chair Kawakami and members of the Committee I am Warren Bollmeier, testifying on behalf of the Hawaii Renewable Energy Alliance (HREA). HREA is an industry-based, nonprofit corporation in Hawaii established in 1995. Our mission is to support, through education and advocacy, the use of renewables for a sustainable, energy-efficient, environmentally-friendly, economically-sound future for Hawaii. One of our goals is to support appropriate policy changes in state and local government, the Public Utilities Commission and the electric utilities to encourage increased use of renewables in Hawaii.

The purposes of HB 2400 are to: (i) limit the operations of any electric public utility, (ii) require acquisition of electricity by a power purchase agreement with an unaffiliated entity, (iii) require the utility to purchase lowest cost nonfossil fuel generated electricity prior to purchasing fossil fuel generated electricity, (iv) require the PUC to establish a statewide electricity rat, (v). exempt IRC section 501(c)(12) utilities, and (vi) prioritize geothermal as a replacement for fossil fuel.

HREA **does not take a position** on this measure at this time. In general, we believe the measure's objective is pointed in the right direction, i.e., we need to do something dramatically different, if we are to meet our clean energy goals. This measure specifically targets the electrical sector and suggests a "moderate restructuring" of the existing HECO Companies' monopoly. The following is our assessment of the measure.

Elements that Merit Consideration:

- 1) Increasing the role of independent power production
- 2) Utility focus on transmission & distribution, and operation of the grids

Comments: as proposed, these functions would be totally separated. However, it is not clear how this would be accomplished. Whereas the current HECO business model, in our opinion, is not suited to achieving these objectives. So we have a bit of a conundrum

Moving this discussion forward, the following should clarified:

- 1) Clearly define the role of the Commission in implementing this transition including continuation of existing Independent Power Production, feed-in tariffs and net metered agreements, and efficiency programs
- 2) Provide guidance regarding how planning will be accomplished, prioritization of all renewable energy sources, firm (geothermal and others) and as-available, delivery mechanisms, and phasing out of existing fossil generation - all the time while maintaining system safety and reliability, and doing so at reasonable costs.

Thank you for this opportunity to testify.

The Twenty-Sixth Legislature
Regular Session of 2012

HOUSE OF REPRESENTATIVES
Committee on Energy & Environmental Protection
Rep. Denny Coffman, Chair
Rep. Derek S.K. Kawakami, Vice Chair
State Capitol, Conference Room 325
Thursday, February 2, 2012; 10:00 a.m.

**STATEMENT OF THE ILWU LOCAL 142 ON H.B. 2400
RELATING TO PUBLIC UTILITIES**

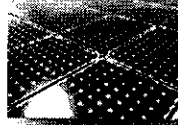
The ILWU Local 142 offers comments on H.B. 2400, which limits the operations of any electric public utility, requires acquisition of electricity by a power purchase agreement with an unaffiliated entity, requires the utility to purchase lowest cost no fossil fuel generated electricity prior to purchasing fossil fuel generated electricity, requires the PUC to establish a statewide electricity rate, exempts IRC section 501(c)12 utilities, and prioritizes geothermal as a replacement for fossil fuel.

This comprehensive bill attempts to address a number of issues related to the high cost of electricity in Hawaii. Clearly, consumers cannot continue to pay electricity bills that increase by the month, despite valiant efforts at conservation. The culprit apparently is the extensive use of imported oil, which is not only expensive but uncertain.

All of this while Hawaii possesses an abundance of renewable energy resources in geothermal, ocean thermal energy conversion, photovoltaic, wind, biomass, and biofuels. The problem, however, is that much of the renewable energy resources are not on Oahu, where most of the State's population resides and the electricity needs are greatest. One thing that this bill does not address is the development of a high-voltage undersea transmission cable that will distribute electricity generated from renewable sources throughout the state.

We are also seriously concerned about the bill's intent to give priority to geothermal development rather than recognize the development of all renewable sources of energy. Hawaii as a whole will benefit if all sources are developed and the electricity generated from those sources is transmitted to wherever the need exists.

Thank you for considering the ILWU's comments on H.B. 2400. We look forward to the continuing dialogue to achieve a vehicle that will address Hawaii's energy needs.



HOUSE COMMITTEE ON ENERGY & ENVIRONMENTAL PROTECTION

February 2, 2012, 10:00 A.M.

Room 325

(Testimony is pages long)

TESTIMONY IN SUPPORTING INTENT OF HB 2400, COMMENTS AND AMENDMENTS

Chair Coffman and members of the Committee:

The Blue Planet Foundation supports the intent of HB 2400, a measure which seeks to, among other changes, bifurcate Hawai'i's main electric utility company into a transmission and distribution company and generating assets. The intent of this measure, we believe, is to establish a public utility that is solely in the business of transmitting and distributing electricity to customers (creating a "wires" company), thereby reducing or eliminating the inherent conflict of interest in owning both the means of generation (which are currently fossil fuel power plants) and the means of distribution (the powerlines and auxiliary infrastructure to convey electricity). Blue Planet supports this concept in theory as a way to transform Hawai'i's electricity landscape to enable clear economic alignment of clean energy goals. Our testimony contains three parts: the need for institutional restructuring, specific comments on HB 2400, and alternative approaches to address the structural problems that this measure is intended to correct.

The need for institutional restructuring

Achieving the preferred system of energy self-sufficiency for Hawaii—one where wind, solar, and geothermal energy are no longer considered "alternative" energy—requires intelligent, transformative policy. Fortunately, Hawai'i can model policy after solutions adopted elsewhere to help clear the myriad institutional, regulatory, and financial barriers blocking Hawaii's clean energy future. Eliminating the vertical monopoly and separating electricity generation and distribution (as HB 2400 contemplates), clearly aligning utility profitability with Hawaii's clean energy future, provide independent oversight of grid reliability and interconnection, and other changes are all potential policy tools to help accelerate the transition to Hawaii's clean energy future.

Jeff Mikulina, executive director • jeff@blueplanetfoundation.org

55 Merchant Street 17th Floor • Honolulu, Hawaii 96813 • 808-954-6142 • blueplanetfoundation.org

Hawaii's electricity today is largely produced by central station power plants that distribute power to customers. For example, 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. This paradigm is changing, however, as more customers produce their own power from clean energy sources and distributed sources of power come online.

Today, however, access to the electricity grid is largely controlled by a single utility—and that utility receives scant financial benefit in plugging into clean energy sources, particularly if those sources are widely distributed. Blue Planet believes that the role of electric utilities in Hawai'i will shift from a centralized producer-distributor model to a mostly decentralized, distribution manager model—the utility will control and manage the wires of the new smart grid but much of the power will come from independent, clean energy sources. Our future power grid will resemble today's Internet—where distributed servers both send and receive packets of information—and less like yesterday's commercial television. The role of the utility will be similar to an Internet provider, moving the electrons in the most efficient and effective manner.

The current regulatory paradigm does not drive the utility to adopt renewable energy at the pace and scale that our energy crisis warrants. Hawaii's main electric utility is currently regulated such that its 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 projects¹. 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 facilities. 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 (asset impairment), potentially leaving the utility 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. 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.

¹ Unless these projects require major upgrades and investments to grid infrastructure to enable them. Even so, the utility has not demonstrated a strong desire to allocate significant capital expenditure in this area (as opposed to power plant upgrades, biofuel infrastructure, environmental compliance, and plant maintenance).

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).

These issues are a fairly recent evolution for the electricity business in Hawai'i. Hawaii'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.

Changes in the regulatory structure and the state's electricity markets with the goals of removing complete utility control over electricity generation, interconnection, and distribution—while aligning utility economic goals with adoption of clean energy resources—would help to accelerate Hawaii's transition to energy self-sufficiency.

Comments on HB 2400

House Bill 2400 seeks to—among other changes—separate Hawai'i's main electric utility company into a transmission and distribution company and generating assets. Blue Planet offers the following specific questions and comments.

- House Bill 2400 changes the definition of a "public utility" but it is not clear how the main utility would divest itself of its generation assets (which are valued in the billions of dollars).
- Does the new entity or owner of the generation assets become a public utility and regulated under this act since many of the provisions remain that apply to generation?

Or does the new owner simply become an independent power producer and enter into a power purchase agreement with the new “wires” company?

- It is unclear in HB 2400 who has the responsibility to manage the electrical grid to maintain reliability and stability.
- Page 4, line 1: the definition may leave some gray areas that require further definition (perhaps in administrative rules) of the key phrase “own or operate both the methods of producing electricity and the means of conveying...” For example, where does battery storage fall?
- Page 4 - Line 9: We believe that power purchase agreements (PPAs) with affiliates should be allowed if through a competitive bidding process and found by the Commission to be just and reasonable.
- Page 4, line 13: The phrase “and not by any other means” should be added to the end of the sentence for the sake of clarity and to reaffirm the bill’s basic restriction around PPAs. We also want to ensure that PPAs, as contemplated here, include other agreements, such as feed-in tariff standard agreements.
- Page 5, line 2: The PUC sets rates based upon the record developed in a contested case proceeding.
- Page 24 - lines 1 - 10: Blue Planet takes no position on this provision (levelized rates), but it might be more defensible if the island transmission systems are interconnected.
- Page 25, lines 9 - 13: Prioritizing geothermal energy is in tension with the existing renewable portfolio standard definition of eligible resources. We would prefer this part to read “...development of firm, intermittent, distributed, dispatchable resources to replace or reduce the use of existing fossil...”
- Page 25 - Line 18: It is unclear what is meant by “grid safe.” We prefer “produced in a reliable manner with good utility practices.”
- Page 26 - Line 14: With the elimination of “production,” we assume an independent power producer or producers buy the existing generating assets and enter into a PPA with the new transmission and distribution (“wires”) company. The “wires” company must be required to operate the grid in a reliable, stable, and safe manner with good utility practices.

Alternative approaches to address existing structural problems

House Bill 2400 seeks to eliminate the inherent conflict of interest in owning both the means of generation (which are currently fossil fuel power plants) and the means of distribution (the powerlines and auxiliary infrastructure to convey electricity). The intention is to create a new structure that reduces the use of fossil-based electricity generation and enables much greater use of stable, indigenous, renewable energy resources. Eliminating the vertical monopoly and bifurcating electricity generation and distribution (as HB 2400 contemplates) likely achieves these goals. Other policy tools are currently available—and modeled elsewhere—to achieve these goals. 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”;
- Creation of a “performance incentive mechanism” to reward the utility for achieving clean energy goals; and
- Unbundling ancillary services and perhaps electricity transmission and generation.

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. (House Bill 2525—the Hawaii Electricity Reliability Administrator measure—contains policy to do this.)

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. Hawaii’s 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 NERC-equivalent 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 NERC 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 other. 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. 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 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 PUC, 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.

Unbundling ancillary services

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 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. Such a policy would create competitive markets that will most efficiently determine the suppliers and prices for many ancillary services. It would also help 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.

Thank you for considering this measure. We respectfully ask that the Committee move HB 2400 forward for further discussion and refinement.

Thank you for the opportunity to testify.

kawakami1 - Marissa

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, February 01, 2012 8:57 AM
To: EEPtestimony
Cc: juanwilson@mac.com
Subject: Testimony for HB2400 on 2/2/2012 10:00:00 AM

Testimony for EEP 2/2/2012 10:00:00 AM HB2400

Conference room: 325
Testifier position: Support
Testifier will be present: No
Submitted by: Juan Wilson
Organization: IslandBReath.org
E-mail: juanwilson@mac.com
Submitted on: 2/1/2012

Comments:

Only my finding multiple small scale solutions to alternative energy will we move forward.

Depending on unsustainable future financing for large scale solutions is illusionary.

HECO is standing in the way of the future.

Representative Coffman and members of the EEP committee:

HB2400 and all geothermal bills introduced this year go a long way toward correcting the shortcomings of the Governor's energy plan in which he calls out our Utility monopoly but has failed to follow through on the plan, which states in part: "We have a regulatory system and a utility monopoly that were built for a time and public purpose that are in the past. If we do not fundamentally change our approach, we will not reach our goals. Hawaii's boundless renewable energy potential is bottlenecked in our archaic utility structure. Their monopolistic control is often at odds with the public interest in the world beyond fossil fuels. Democratizing energy requires the creation of a free market in energy so that we can deploy clean energy sources and our entrepreneurs can create new jobs. To reach our goals we must consider an integrated approach, which means working closely with communities and ensuring that their interests in affordable and environmentally sustainable energy production are honored. We will look at sound practices and science, hold open discussions where all views are taken into consideration, and make firm decisions."

Hawaii is at a critical juncture in its history and HB2400 is a landmark piece of legislation that must be passed and signed into law promptly along with ALL geothermal bills without any interference from HECO so that Hawaii can become 100% free of its dependence on foreign oil in 10 years just like we landed a man on the moon in 10 years. What we are doing here is not rocket science. All it takes is will power, not rocket power. Much of what we must do is basic common sense.

In addition, I am submitting as the bulk of my testimony in support of HB2400 and ALL geothermal bills introduced this year the cover letter that I mailed along with a petition complaint with signatures to the Director of Consumer Protection at the Federal Trade Commission requesting that a class action lawsuit be filed by the FTC on behalf of all Hawaii electric ratepayers against HECO et al. for last year's fiasco with the HECO - Aina Koa Pono biofuel application to the PUC, docket # 2011-0005. As noted at the bottom, the letter has been sent around Washington and elsewhere so everyone knows what is at stake in Hawaii. It is time to end this monopoly and cut off the head of the dragon once and for all. Here is the link to this letter on-line for world-wide viewing:

<http://ecoeffecttv.org/news/812-heco-taken-to-task-by-hawaii-residents-complaint-to-federal-trade-commission.html>

Sincerely,

Ed Wagner
Mililani, HI

Federal Trade Commission
Bureau of Consumer Protection
Office of the Director
600 Pennsylvania Avenue, NW
Washington DC 20580

Dear Mr. Leibowitz,

Hawaii has the highest electric rates in the nation and has had a state-sponsored utility monopoly for most of Hawaiian Electric's (HECO) 100+ year existence. The utility has become a dinosaur with a status-quo mentality and continues to obstruct progress toward independence from foreign oil. It must be removed from its god-like pedestal if Hawaii is to move forward to a renewable energy future. Please reference my personal complaint in this matter, # 32340030, as well as the attached petition complaint.

HECO's stock price is up and its profits are soaring, not because it is a well managed, ethical company, but because of its rate increases. Its entire infrastructure is crumbling beneath our roads, with many island electrical companies sub-contracted by HECO to perform dangerous repairs and upgrades to deteriorated 7,200 V exposed underground wiring (no conduit to protect wiring) because HECO doesn't have the manpower or the skilled management to deal with its own failed policies over the past 50 years. It seems that not a day goes by without having one or more localized power failures on Oahu. The last power failure on my street lasted 10 hours on December 11, 2011. When President Obama was here for Christmas 2008, the entire island was without power overnight. Last year, much of the windward side of Oahu was without power for many hours.

Hawaii ratepayers are tired of being held hostage by HECO, including its Maui Electric (MECO), and Hawaiian Electric Light Company (HELCO) subsidiaries while they constantly stand in the way of our progress toward an energy efficient future. Hawaii's Energy Plan, based upon HECO profit requirements, is to become only 70% free of foreign oil in 20 years, with only 40% coming from renewables and 30% from efficiency. Yet, we can be 100% free of our dependence on foreign oil within 10 years if we set our minds to it, by using our most abundant renewable energy source, geothermal energy, for our base load energy, sun, wind, and ocean, but HECO keeps stifling these technologies, especially geothermal energy, so it can continue burning oil and bi-oil for another 20 years to preserve its profits at the expense of our environment, our residents, our communities, and our planet.

HECO owns this town like an outlaw gang from an Old Western town in a TV show. Everyone, including energy-related businesses, are afraid of the Big Bad Wolf, and politicians, news media, and others bow before their false energy god in idolatrous worship with unwavering commitment and allegiance to the rich and powerful instead of serving

the needs of the people and future generations and being better stewards of the planet. So many people are beholden to HECO's money that they are afraid to speak out against the company's manipulative, stonewalling tactics and its abuse of power.

HECO's new TV commercial bluntly warns ratepayers of higher rates to come, claiming innocence and blaming rising oil prices for those increases. The commercial promotes solar and wind but ignores geothermal energy. Yet, Hawaii has enough geothermal energy potential to power the entire state if we end this abusive monopoly. Shortly after airing this commercial, MECO denied a long time Maui resident connection of a modest 2.9 Kv PV system to the grid and insisted on a minimum \$3,000 fee to do a feasibility study. HECO is a wolf in sheep's clothing, and tries in another TV ad to offer minimalistic energy-saving tips in its ongoing efforts to deceive & manipulate ratepayers into thinking that HECO is their angelic friend instead of their sworn devilish enemy.

A USDOJ attorney stated that section 2 of the Sherman Anti-Trust Act does not apply because HECO is not guilty of exclusionary conduct as a state-mandated utility, and that the only way to end this abusive monopoly with its stranglehold on our electric rates and our energy future is for the Hawaii State Legislature to deregulate the retail utility to open it up to competition. He also suggested that the FTC has very broad powers to protect consumers, and an FTC representative told me that if it sees a pattern of complaints, the FTC will file a class action lawsuit on behalf of the consumer.

On January 25, Hawaii Representative Denny Coffman of the Big Island introduced a long overdue, history-making, landmark piece of legislation, HB2400, to deregulate our electric utility industry. He also introduced numerous other bills related to geothermal energy to move Hawaii toward more geothermal energy and make implementation of HB2400 a successful endeavor. Other legislators have introduced a plethora of other energy bills. Our local Star*Advertiser covered these bills in its Monday edition Money story, "Breaking Down HECO".

http://www.capitol.hawaii.gov/session2012/bills/HB2400_.pdf

It has already been alleged on the street that HECO plans to spend lots of money like Washington lobbyists do on members of Congress to crush this bill to maintain its power, control, and influence over the people, businesses, and politicians of Hawaii.

I urge you to hear our plea for help to put pressure on our Legislature and Governor to pass and sign this strongly worded HB2400 bill and all of its companion geothermal bills into law without delay and without HECO interference to weaken the bill(s) and add loopholes benefiting HECO's continuing obsessive, compulsive lust for profits at the expense of our future. Help us end this 100+ year old monopoly.

Do not be like our know-nothing, see-nothing, do-nothing Congress that can't solve the simplest of problems in our country. Do not allow our plea to fall on death ears or pass the torch to someone else in Washington because you don't want to get involved any more than our local DOJ, Ethics Commission, or Consumer Advocacy will get involved.

Enclosed is a petition complaint requesting that your office file a class action lawsuit on behalf of Hawaii's ratepayers against HECO and other "co-conspirators" in their failed efforts to rip off ratepayers on Oahu and the Big Island to the tune of a half billion dollars over 20 years to fund a private company's lab experiment with unproven technology so it would be 100% risk-free to its investors. Petition signatures continue to come in to this on-line petition since:

<http://www.change.org/petitions/end-hawaiis-electric-utility-monopoly-for-lower-rates-clean-energy>

Most folks feel hopeless, helpless & powerless, but are not petition signers, including small energy businesses afraid of the Big Bad Wolf. Some out-of-state signers may have lived in Hawaii and were forced out by high living costs, or are otherwise familiar with the HECO monopoly because friends or family live here. Out-of country signatures are important because of the international trade infringement issues involved in the subject of the petition complaint.

The last statement of Lincoln's Gettysburg address - this government of the people, by the people, for the people, shall not perish from the earth - has yet to become a reality in this country because our government is by the rich and powerful for the rich and powerful, and those rich and powerful are destroying our country, and our planet.

It is time for those rich and powerful people, HECO management included, to step aside and for the voices of the people to be heard. It is time to stop this insane, insidious, obsessive, compulsive lust for money, power, and control in this country and start focusing on the betterment of the human condition and better stewardship of Spaceship Earth. The playing field must be leveled, with everyone playing by the same set of rules of ethical conduct, honesty and integrity, openness and transparency, fair and honest profits, not dishonest, obscene profits. It is time for more common sense to prevail and for a bold new vision for our future to be implemented.

Sincerely Yours,

Ed Wagner
Mililani, HI

Cc: President Obama, Senate Subcommittee on Energy, USDOJ, USDOE, Hawaii State Legislature, www.Charleneongreen.org, news media, & more

kawakami1 - Marissa

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, February 01, 2012 2:46 PM
To: EEPtestimony
Cc: ed.j.wagner@gmail.com
Subject: Testimony for HB2400 on 2/2/2012 10:00:00 AM

Testimony for EEP 2/2/2012 10:00:00 AM HB2400

Conference room: 325
Testifier position: Support
Testifier will be present: No
Submitted by: Ed Wagner
Organization: Individual
E-mail: ed.j.wagner@gmail.com
Submitted on: 2/1/2012

Comments:

Representative Coffman and members of the EEP Committee:

These comments supplement my previously submitted testimony in PDF format.

HB2400 does not go far enough to ensure that HECO divests itself from its power generation holdings in a timely manner, such as 3 to 5 years and keeps the money in Hawaii. HECO could decide to take 20 years to do so to ensure its continued stream of profits at the expense of the people and our renewable energy goals.

HB2400 must be strengthened and amended to specify a plan or requirements for HECO to sell off its power generation facilities.

kawakami1 - Marissa

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, February 01, 2012 1:24 PM
To: EEPtestimony
Cc: ndavlantes@aol.com
Subject: Testimony for HB2400 on 2/2/2012 10:00:00 AM

Testimony for EEP 2/2/2012 10:00:00 AM HB2400

Conference room: 325
Testifier position: Oppose
Testifier will be present: No
Submitted by: Nancy Davlantes
Organization: Individual
E-mail: ndavlantes@aol.com
Submitted on: 2/1/2012

Comments:

While I applaud the basic premise of the bill to have utilities first look to non-fossil fuel sources of electricity, I don't think one source (geothermal) should be given preference over any other. There are too many other options that might be given short-shrift if one source gets preferential treatment.