

TESTIMONY OF HERMINA MORITA
CHAIR, PUBLIC UTILITIES COMMISSION
DEPARTMENT OF BUDGET AND FINANCE
STATE OF HAWAII
TO THE
HOUSE COMMITTEE ON ENERGY & ENVIRONMENTAL PROTECTION
JANUARY 31, 2012

MEASURE: H.B. No. 2043

TITLE: Relating to Renewable Energy

Chair Coffman and Members of the Committee:

DESCRIPTION:

This measure will direct the Commission to require electric utilities to prioritize the development of geothermal energy, waste-to-energy, or other firm indigenous renewable resources over fossil fuel resources when developing integrated resource plans ("IRP").

POSITION:

The Commission supports the intent to increase the use of firm, indigenous renewable resources, but it has concerns with this measure and would like to offer the following comments for the Committee's consideration.

COMMENTS:

The current IRP framework, revised March 2011, calls for the development of scenarios as part of the planning process. The use of scenarios allows an electric utility to develop several options for meeting future energy demands, while still being adaptable and resilient to circumstances beyond the utility's control. For instance, if geothermal resources do not prove to be as abundant or cost effective as predicted, or community opposition prevents the development of such projects, scenario planning allows for the development of other options to meet the demands of the electrical system within the planning period.

While the Commission is in full support of meeting the State's mandate of 40% renewable energy by 2030, it also recognizes that unless there are major technological breakthroughs, 60% of Hawaii's electrical generation in 2030 will still come from fossil fuel. Therefore, it would not be prudent to preclude any options with regard to fossil fuels in our efforts to stabilize electricity prices so as to give rate relief to Hawaii's electricity ratepayer. With this thought in mind, the Commission would like to offer the following additional comments:

First, it is unclear what section of the Hawaii Revised Statutes would be amended by this bill because there is no relevant section listed.

Second, rather than requiring the Commission to place a priority on specific renewable resources, the Commission recommends considering these resources as the various options in the scenario planning process.

Third, the Commission cannot require an electric utility to break its avoided cost contracts with an independent power producer, since this would be violation of the contracts clause of the United States Constitution.

Finally, the Commission currently has no role or authority in the geothermal subzone designation process, and therefore cannot direct which lands, public or private, receive the designation.

Based on these comments, the Commission would like to offer the proposed amendments to H.B. 2043 attached to this testimony:

SECTION 2. (a) The public utilities commission shall direct public utilities that provide electricity to the public to include in their integrated resource plans the replacement of scenarios that replace firm power fossil fuel-based electricity generation

facilities with indigenous firm power facilities that use renewable sources to generate electricity.

(b) The public utilities commission shall direct public utilities that supply electricity to the public to ~~prioritize the following~~ develop the following scenarios as part of ~~when developing~~ their integrated resource plans:

(1) Developing facilities that generate electricity using geothermal steam on existing geothermal subzones to replace or mitigate the use of fossil fuel-based electricity generation facilities;

(2) Modifying existing power purchase agreements with independent power producers that contain avoided cost provisions from the existing contract to a replacement power purchase agreement that eliminates any avoided cost provision, but allows the expansion of capacity or purchased power to a term acceptable by all parties, as approved by the public utilities commission;

(3) Developing waste-to-energy electricity generation facilities to replace or mitigate the use

of fossil fuel-based electricity generation facilities;

~~(4) Coordinating efforts with the state energy coordinator, the board of land and natural resources, and the University of Hawaii to establish new geothermal subzones for development; provided that state land shall be given priority over private land for subzone designation and development; and~~

(5) Replacing all existing fossil fuel-based electricity generation facilities on a given island and developing excess firm or intermittent electricity for transmission to other islands, including plans to develop undersea electricity transmission cables to support transmission and distribution of electricity between the islands.

Thank you for the opportunity to testify on this measure.

Testimony before

The House Committee on Energy and Environmental Protection

H.B. 2043-- Relating to Renewable Energy

**Tuesday, January 31, 2012
8:15 am, Conference Room 325**

**By Jose Dizon
Manager, Corporate Planning
Hawaiian Electric Company, Inc.**

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

My name is Jose Dizon. I am the Manager of Corporate Planning for 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). H.B. 2043 seeks to promote geothermal and waste-to-energy development. There are activities currently in place to accomplish these initiatives and other aspects of H.B. 2043 that are outlined below. Therefore, while we support the intent of H.B. 2043, we believe this bill is not needed and should not be moved forward.

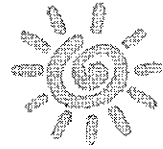
- HELCO released a geothermal request for information (RFI) in mid-2011 with an emphasis on West Hawaii development (currently there is no geothermal resource subzone there) and received 20 responses from developers and landowners. As a result of this RFI, HELCO recently announced plans to issue a geothermal RFP in 2012. Steps are currently being taken to open a geothermal RFP docket at the PUC.
- A new integrated resource planning (IRP) framework has been adopted by the PUC and this new process is about to start a new round of IRP activities. Since the IRP schedule is very tight, the Hawaiian Electric Companies have started assembling supply-side technologies information including geothermal and waste to energy.

If we want geothermal energy to have a larger role in the generation of electricity on the Big Island, new geothermal generators must have regulating capabilities just like the existing fossil generators. At this time there are no commercial, utility-scale, geothermal plants operating in this manner in the world that are designed from the ground up. PGV's dispatchable 8MW was built on top of the existing plant.

- Waste reduction is a primary issue with the counties. Energy generation is secondary. Similar to geothermal, on Maui and the Big Island, the waste-to-energy electricity generation will need to be dispatchable. This again will be the first as far as we are aware. We have previously suggested to developers of certain waste-to-energy technologies to send their liquid or gaseous by-product fuel to the utility instead of building a power block that generates non-dispatchable energy.
- Geothermal subzone designation is based on potential geothermal resources. We know university researchers have grants to obtain new data that can help in establishing a West Hawaii geothermal subzone.

We are excited about the steps to be taken in the IRP and geothermal RFP processes. Given the above, we believe that H. B. 2043 is not necessary.

Thank you for the opportunity to testify.



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: Tuesday, January 31, 2012

TIME: 8:15 a.m.

PLACE: Conference Room 325

Bill: HB 2043 RELATING TO RENEWABLE ENERGY **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.

HB 2043 Requires the PUC to direct electric utilities to place special emphasis on utilizing renewable energy sources when crafting integrated resource plans.

HB 2043 correctly identifies the need to develop baseload renewable energy resources. The bill also focuses on the need to replace existing fossil fuel generators which rely on imported fuel and which emit greenhouse gases with generators which use local fuel and which have minimal greenhouse gas emissions.

HB 2043 incorrectly attempt to pick winners and losers.

It states that "Geothermal, waste-to-energy, and hydroelectric renewable electricity generation resources and technologies are commercially available."

While waste-to-energy are commercially available, the existing supply of waste resources are minimal and such plants will not supply more than 5-10% of an island's load. Hydro opportunities are very limited within Hawai'i. Proven geothermal resources exist only on Hawai'i island. Maui may have some residual heat, but since any heat used would not be replenished it is not truly a renewable resource.

The bill discounts other options: "Ocean thermal energy conversion, wave energy, and biofuels based energy ...are not commercially available at this time or in the near future."

Rudolf Diesel showcased peanut oil powered cars at the Paris Worlds Exposition (1900).¹ "In 2010 worldwide biofuel production reached ...28 billion gallons."² The U.S. EPA published the "Environmental Laws Applicable to Construction and Operation of Biodiesel Production Facilities" in November 2008 noting that "this document focuses on commercial biodiesel manufacturing."³

Utilizing ocean thermal energy conversion (OTEC), a 183-pound unmanned prototype U.S. Navy submarine completed 300 dives down to a depth of over 1600 feet in water about 100 miles southwest of Honolulu. HECO has signed an agreement to support a 100 MW OTEC facility of Kahe.⁴

Earlier this year EPRI came out with a report which state that ocean waves off O`ahu can supply twice O`ahu's electricity needs. It is purely speculation to say that O`ahu can get geothermal power from the Big Island before wave energy conversion systems are commercialized.

¹ [http://biodiesel.rain-barrel.net/peanut-oil-powered-cars/;](http://biodiesel.rain-barrel.net/peanut-oil-powered-cars/)
<http://www.cyberlipid.org/glycer/biodiesel.htm>

² <http://en.wikipedia.org/wiki/Biofuel>

³ http://www.epa.gov/region07/priorities/agriculture/pdf/biodiesel_manual.pdf

⁴ <http://www.disappearednews.com/2011/08/micro-ocean-thermal-energy-conversion.html>

kawakami1 - Marissa

From: mailinglist@capitol.hawaii.gov
Sent: Monday, January 30, 2012 6:53 AM
To: EEPtestimony
Cc: skaye@runbox.com
Subject: Testimony for HB2043 on 1/31/2012 8:15:00 AM
Attachments: HB2043testimony.docx

Testimony for EEP 1/31/2012 8:15:00 AM HB2043

Conference room: 325
Testifier position: Oppose
Testifier will be present: No
Submitted by: sally kaye
Organization: Individual
E-mail: skaye@runbox.com
Submitted on: 1/30/2012

Comments:

HOUSE COMMITTEE ON ENERGY AND ENVIRONMENTAL PROTECTION

Attention: Denny Coffman, Chair

Comments on HB 2043, Relating To Integrated Resource Planning (IRP)

Hearing January 31, 2012, 8:15 a.m.

Aloha kakou:

I am writing in strong **OPPOSITION** to HB 2043.

On its face, this measure attempts to shift responsibility for setting state energy policy from a monopolistic share-holder owned utility to the state's Public Utility Commission (PUC).

This is a laudable, long-overdue goal.

On its face, this measure targets the "replacement of firm power fossil fuel-based generation facilities with indigenous firm power facilities." This also is a laudable, long-overdue goal.

However, in so far as this measure directs that the PUC "shall" direct the utility to "prioritize" in integrated resource planning (IRP) "plans to develop undersea electricity transmission cables to support transmission and distribution" of intermittent power between the islands, it is self-defeating and goes too far.

Measures such as SB 367 were challenged last session as an attempt to facilitate an undersea cable configuration that would take industrial-scale intermittent wind power from Lana`i and Moloka`i and send it to fill a small portion of O`ahu's power needs, at inestimable cost to the neighbor islands.

The operative word then as now, is "inestimable." Requiring the utility to prioritize developing and planning for "undersea cables" while costs, social and cultural impacts, and environmental losses have not even begun to be studied, much less disclosed for discussion, is unacceptable.

Please kill this bill.

kawakami1 - Marissa

From: mailinglist@capitol.hawaii.gov
Sent: Monday, January 30, 2012 7:03 AM
To: EEPtestimony
Cc: rkaye@mdi.net
Subject: Testimony for HB2043 on 1/31/2012 8:15:00 AM

Testimony for EEP 1/31/2012 8:15:00 AM HB2043

Conference room: 325
Testifier position: Oppose
Testifier will be present: No
Submitted by: Robin Kaye
Organization: Individual
E-mail: rkaye@mdi.net
Submitted on: 1/30/2012

Comments:

Aloha:

I am writing in strong OPPOSITION to HB2043.

On its face, this measure attempts to shift responsibility for setting state energy policy from a monopolistic share-holder owned utility to the state's Public Utility Commission (PUC). HB2043 also targets the "replacement of firm power fossil fuel-based generation facilities with indigenous firm power facilities." These are both laudable, long-overdue goals.

HB2043 states that the following should be included as a priority in integrated resource plans (IRPs): "Replacing all existing fossil fuel-based electricity generation facilities on a given island and developing excess firm or intermittent electricity for transmission to other islands, including plans to develop undersea electricity transmission cables to support transmission and distribution of electricity between the islands."

This is self-defeating. Were it to keep its focus on firm power, this would be a good addition to our state's energy policies. Were it to focus on the first four priorities, it would be a good addition to our state's energy policies. As written, however, it appears to focus, as last sessions SB367 did, on taking industrial-scale intermittent wind power from Lana'i and Moloka'i and sending it to fill a small portion of O'ahu's power needs, at inestimable cost to the neighbor islands.

Requiring the utility to prioritize developing and planning for "undersea cables" while costs, social and cultural impacts, and environmental losses have not even begun to be studied, much less disclosed for discussion, is unacceptable. As was raised by innumerable opposition comments to SB367 last session, not a single EIS has been completed; not even a draft.

Please kill this bill.

Mahalo for your consideration.