

SB 2981

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

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TO THE SENATE COMMITTEE ON ENERGY AND ENVIRONMENT

THE TWENTY-SIXTH LEGISLATURE
REGULAR SESSION OF 2012

TUESDAY, JANUARY 31, 2012
2:45 P.M.

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

SENATE BILL NO. 2981 - RELATING TO RENEWABLE ENERGY

DESCRIPTION:

This measure proposes to require the Public Utilities Commission to direct electric utilities to place special emphasis on utilizing renewable energy sources when crafting integrated resource plans.

POSITION:

The Division of Consumer Advocacy ("Consumer Advocate") supports the intent of this bill to promote renewable energy sources, with a focus on geothermal energy and offers comments for consideration.

COMMENTS:

The Consumer Advocate supports promoting renewable energy resources, however, the Consumer Advocate does not favor legislating a preference for a particular

Senate Bill No. 2981
Senate Committee on Energy and Environment
Tuesday, January 31, 2012, 2:45 p.m.
Page 2

technology or energy source as this approach may not be in the best interest of the ratepayers and mandating a preference, even in the context of the Integrated Resource Plan (IRP), may serve to negate any market pressure to maintain and promote cost effective measures or alternatives. The Consumer Advocate is also concerned that the potential for new technological discoveries and advancements may not get full consideration in the IRP if certain renewable energy technologies are given preferential treatment. Further, with respect to the reference for plans for the undersea cable, the Consumer Advocate notes that there are other measures under consideration concerning regulation of owners and operators of high voltage transmission cables, specifically S.B. No. 2785, which does provide more clarity of how such entities would be regulated.

The purpose of the IRP is to allow the free-flow of ideas and scenarios in setting and meeting the state of Hawaii's energy goals, including all forms of renewable energy. Mandating through legislation any priorities for the IRP may put unreasonable constraints on the IRP discussion. Finally, the Consumer Advocate is concerned with the potential this bill has on opening the door to a flood of special-interest legislation that would all seek to have one particular form of renewable energy given a preference in the IRP process.

Thank you for this opportunity to testify.

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

MEASURE: S.B. No. 2981

TITLE: Relating to Renewable Energy

Chair Gabbard 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 likely be in violation of the Contract 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 when developing]~~ develop the following scenarios as part of 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; and

~~[-(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+] (4) 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.



Sierra Club

Hawai'i Chapter

PO Box 2577, Honolulu, HI 96803
808.538.6616 hawaii.chapter@sierraclub.org

SENATE COMMITTEE ON ENERGY AND ENVIRONMENT

January 31, 2012, 2:45 P.M.
(Testimony is 1 page long)

TESTIMONY IN SUPPORT OF THE INTENT OF SB 2981 WITH PROPOSED AMENDMENT

Aloha Chair Gabbard and Committee Members -

The Sierra Club, Hawai'i Chapter, with over 9,000 members and supporters, *supports* the intent of SB 2981. This bill would require electric utilities to emphasize specific renewable energy forms of energy when crafting an integrated resource plan.

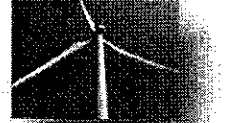
A concern with this bill is that it specifies winners and losers in the renewable energy field. By specifically naming certain types of "renewable" energy, like waste-to-energy, this bill could limit consideration of other, and perhaps better, renewable energy forms. In such an evolving field, it may be wiser to leave the specifics of the types of renewable energy up to the PUC.

Proposed Amendment:

Section 2 should simply state:

The public utilities commission shall direct public utilities that provide electricity to the public to include in their integrated resource plans the replacement of firm power fossil fuel-based electricity generation facilities with indigenous firm power facilities that use renewable sources to generate electricity.

Thank you for the opportunity to testify.



SENATE COMMITTEE ON ENERGY AND ENVIRONMENT

January 31, 2012, 2:45 P.M.

Room 225

(Testimony is 2 pages long)

TESTIMONY IN SUPPORTING INTENT OF SB 2981, SUGGESTED AMENDMENTS

Chair Gabbard and members of the Committee:

The Blue Planet Foundation supports the intent of SB 2981, a measure which directs the Public Utilities Commission (PUC) to require that the electric utilities prioritize the renewable energy and phasing out of fossil fuel powerplants in their integrated resource planning (IRP).

Blue Planet generally supports this added guidance to the PUC, particularly in regards to incorporating the planned retirement of fossil fuel units in the utilities' IRP. We offer the following amendments to the proposed language.

Thank you for the opportunity to testify.

SUGGESTED AMENDMENTS

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 [~~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 when developing their integrated resource plans:

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

Jeff Mikulina, executive director • jeff@blueplanetfoundation.org

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- (2) [~~Modifying~~] Renegotiating existing power purchase agreements with the mutual agreement of 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~~] Integrating 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~~] Integrating plans to develop undersea electricity transmission cables to support transmission and distribution of electricity between the islands to provide more a more robust electricity grid, stabilize electricity rates, and minimize or eliminate the need for individual island fossil fuel-based electricity generation facilities.

Testimony before

**The Senate Committee on
Energy and Environment**

S.B. 2981-- Relating to Renewable Energy

**Tuesday, January 31, 2012
2:45 pm, Conference Room 225**

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

Chair Gabbard, Vice-Chair English 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). S.B. 2981 seeks to promote geothermal and waste-to-energy development. There are activities currently in place to accomplish these initiatives and other aspects of S.B. 2981 that are outlined below. Therefore, while we support the intent of S.B. 2981, 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. PGM'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 S.B. 2981 is not necessary.

Thank you for the opportunity to testify.

Testimony for ENE 1/31/2012 2:45:00 PM SB2981

Conference room: 225

Testifier position: Oppose

Testifier will be present: No

Submitted by: Michael Bond

Organization:

E-mail: bondma@cs.com

Submitted on: 1/30/2012

Comments:

This bill is a very bad idea for several reasons:

1. It in essence requires the PUC to ensure that existing fossil fuel plants must be replaced. However, fossil fuel (fixed) generation is an essential part of Hawaii's power supply, and cannot be replaced by wind nor entirely by solar. Hawaii is in a unique position to add more solar power to the grid, and thus lower fossil fuel generation, but fossil fuel will always play a major role in fixed generation.

2. Regarding paragraph (5), what is proposed is infeasible and would place a huge burden on ratepayers. Nor is it possible to "replace all existing fossil fuel generation facilities on a given island".

3. An undersea cable is similarly a very expensive, unreliable and unnecessary project for Hawaii. It also would place a huge financial burden on ratepayers. This bill will result in a large increase in everyone's electricity bill and should be strongly opposed.

I have worked nearly 30 years in the energy industry, have been involved in many power generation, transmission and grid projects, and based on that experience I request that this proposed bill be voted down in the interest of the Hawaii ratepayer.

Thank you,

Michael Bond

Bond Investment Group

P.O Box 511

Kaunakakai, HI 96748



Date: Tuesday, January 31, 2012
Time: 2:45 pm
Place: Conference Room 225
Committees: Senate – ENE & CPN

Re: SB 2981 – Relating to Renewable Energy – Testimony in Strong Support

Aloha Senators,

The Innovations Development Group (IDG) is a Hawaii based renewable energy Development Corporation owned by Native Hawaiians. It was created to facilitate the development of renewable energy resources of native people, and in summer 2011 presented its development model to legislators of the Energy & Land Committees.

The IDG strongly supports this measure.

The State of Hawaii is facing a severe energy and fiscal crisis. For many years Hawaii has been dependent on fossil fuels. As a result, Hawaii is now considered the most energy insecure State in the nation. It is ironic that our State has significant indigenous renewable energy resources that are public trust assets. These precious energy resources are not being developed as a priority, and energy from these resources have not been incorporated into the existing grid because public utilities favor fossil fuel-based electricity generation.

This measure empowers the Hawaii PUC (in its role as a State Trustee overseeing the manner in which the State's public trust renewable energy resources are developed) by directing the PUC to take a more active role in the State energy planning process in order to ensure that electricity generated from geothermal resources and other indigenous firm power renewable resources replace electricity generated from fossil fuels in a timely and expedient manner. In addition, this bill recognizes that the PUC must be able to ensure a fair and reasonable rate to consumers who are in fact the (public and Native Hawaiian) beneficiaries of the public trust.

The Report of the Hawaii Island Geothermal Working Group affirms that geothermal energy is the most reliable and affordable source of firm power in Hawaii. This Bill acknowledges this fact and prioritizes geothermal development.

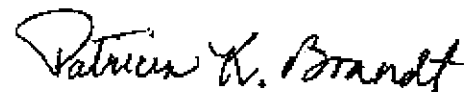
RECOMMENDED CHANGES:

Provisions (1) and (4) make reference to “existing “and” new geothermal subzones”, It is recommended that references to subzones be deleted from the Bill and that new language be added that states:

- (1) Developing facilities that generate electricity using geothermal steam from public trust lands 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, the University of Hawaii to identify new areas for development; provided that state land shall be given priority over private land for development;

These changes allow the process to proceed without the State being required to pay for costs and accommodate lengthy delays (required by a geothermal subzone designation process,) and expedite development of public trust renewables as a priority.

Kind Regards,



Patricia K. Brandt
CEO, IDG



Date: Tuesday Jan 31- Room 225 Time 2:45
Time: 2:45 pm
Place: Conference Room 225
Committees: Senate – ENE & CPN

Testimony in Strong Support of SB 2981- Relating to Renewable Energy

Aloha Senators,

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 urges its prompt passage.

Hawaii is the most energy insecure State in the Union. Hawaii is currently experiencing a crisis in energy as well as a fiscal crisis. This is due largely to the fact that Hawaii exports 7 billion dollars a year for fossil fuel. These revenues are not being made available for growth and expansion of our economy because they are diverted to pay for fossil fuel despite the fact that Hawaii has a great bounty of indigenous renewable energy, including geothermal energy that is a 'mineral' and an asset of the public trust. The State and its agencies & regulatory bodies, including the PUC, have a trust & fiduciary obligation to inventory & develop these renewable assets in a way that benefits the public and Native Hawaiians who are the beneficiaries of the public trust.

One of the primary barriers to Hawaii's energy self-sufficiency is the conflict of interest that exists because the electric utility that owns & manages the grid is also in the business of energy generation using fossil fuels and facilities that can only be run on fossil fuels or their own bio-fuel plants. These facilities cannot interface with geothermal or other renewable energy sources.

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Phone: 808 990 0529

This measure addresses this conflict and empowers the PUC in the performance of its Trust obligations to ensure that the States energy trust assets are developed as a priority for Hawaii's energy security, and that they are developed in a manner that Brings a direct benefit to the public and Native Hawaiians who are the sole beneficiaries of the State public trust.

RECOMMENDED CHANGES:

Provisions (1) and (4) make reference to "existing "and" new geothermal subzones", It is recommended that references to subzones be deleted from the Bill and that new language be added that states:

- (1) Developing facilities that generate electricity using geothermal steam from public trust lands 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, the University of Hawaii to identify new areas for development; provided that state land shall be given priority over private land for development;

These changes allow the process to proceed without the State being required to pay for costs and accommodate lengthy delays (required by a geothermal subzone designation process,) and expedite development of public trust renewables as a priority.

Regards,

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

Mililani B. Trask

Testimony for ENE 1/31/2012 2:45:00 PM SB2981

Conference room: 225
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 SB 2981.

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). SB2981 also targets the "replacement of firm power fossil fuel-based generation facilities with indigenous firm power facilities." These are both laudable, long-overdue goals.

SB2981states 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.

SENATE COMMITTEE ON ENERGY AND ENVIRONMENT
Attention: Mike Gabbard, Chair
Comments on SB 2981, Relating To Integrated Resource Planning (IRP)
Hearing January 31, 2012, 2:45 p.m.

Aloha kakou:

I am writing in strong **OPPOSITION** to SB 2981.

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.

Sally Kaye

Testimony on SB 2981

Testimony for ENE 1/31/2012 2:45:00 PM SB2981

Conference room: 225

Testifier position: Oppose

Testifier will be present: No

Submitted by: Peggy Lucas

Organization: Individual

E-mail: peggy@bondcarr.com

Submitted on: 1/30/2012

Comments:

Section 2-b-5 should be struck as it promotes development of an undersea cable whose environmental impacts, real cost, and feasibility have not been explored sufficiently.