

STAND. COM. REP. NO.

206

Honolulu, Hawaii

FEB 19 2009

RE: S.B. No. 1671

Honorable Colleen Hanabusa
President of the Senate
Twenty-Fifth State Legislature
Regular Session of 2009
State of Hawaii

Madam:

Your Committee on Energy and Environment, to which was referred S.B. No. 1671 entitled:

"A BILL FOR AN ACT RELATING TO FOSSIL FUELS,"

begs leave to report as follows:

The purpose of this measure is to prohibit new or expanded fossil fuel power plants in order to align the State's energy policy with the State's preferred clean energy future.

Testimony in support of this measure was submitted by one state department and one private organization. Testimony in support of the intent, with comments, was submitted by a state department and a private organization. Comments were submitted by a private organization. Copies of written testimony are available for review on the Legislature's website.

This measure prohibits both the construction of new electricity generating facilities and the modification of existing facilities with a rated capacity of more than two megawatts if the construction or modification utilizes fossil fuel services to generate the electricity. The prohibition would commence on July 1, 2009.

Your Committee finds that it is critical that decisions be made to wean the State off of its dependence on foreign oil. Hawaii's economic, environmental, and energy security demand that the State reduce the amount of fossil fuel imported and consumed in Hawaii.



As affirmed by the record of votes of the members of your Committee on Energy and Environment that is attached to this report, your Committee is in accord with the intent and purpose of S.B. No. 1671 and recommends that it pass Second Reading and be referred to the Committee on Commerce and Consumer Protection.

Respectfully submitted on
behalf of the members of the
Committee on Energy and
Environment,



MIKE GABBARD, Chair



JAN 28 2009

A BILL FOR AN ACT

RELATING TO FOSSIL FUELS.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF HAWAII:

1 SECTION 1. The legislature finds that fossil fuel use is
2 not part of Hawaii's clean, independent, and sustainable energy
3 future. All fossil fuel used in Hawaii is imported from
4 thousands of miles away by ship. The burning of fossil fuel
5 degrades the air quality and the State's image as the "Health
6 State" and a clean destination.

7 The legislature further finds that carbon dioxide from
8 fossil fuel consumption is implicated in global climate change
9 and may have profound consequences on the State's environment
10 and quality of life. Current scientific consensus predicts a
11 very different future from what we are accustomed to, if heat-
12 trapping greenhouse gas emissions continue unabated. The
13 Pacific ocean may inundate most of Waikiki, the business
14 district in Honolulu, and coastal resort areas on other islands.
15 Saltwater intrusion may contaminate island aquifers and more
16 frequent storms and hurricanes may strike the islands.
17 Prolonged droughts and subtle shifts in island microclimates may



1 rapidly increase the extinction of endangered plants and
2 animals. The State can play a pivotal role in utilizing
3 technologies that reduce humankind's contribution to global
4 climate change by transitioning away from fossil fuel sources to
5 generate electricity and demonstrating technologies that reduce
6 negative effects on global climate change.

7 The legislature further finds that the State's dependency
8 on foreign fossil fuel results in the annual outflow of billions
9 of dollars from the state economy. In 2005, the State imported
10 over 51,000,000 barrels of petroleum and 805,000 short tons of
11 coal. In the summer of 2008, the price per barrel of oil
12 exceeded \$140. As a result, billions of dollars are directly
13 exported from the State each year. Efforts to dramatically
14 reduce fossil fuel consumed in the State will benefit both the
15 economy and the environment.

16 The purpose of this Act is to align the State's energy
17 policy with the State's preferred clean energy future by
18 prohibiting new or expanded fossil fuel power plants.

19 SECTION 2. Chapter 342B, Hawaii Revised Statutes, is
20 amended by adding a new section to be appropriately designated
21 and to read as follows:



1 "§342B- Fossil fuel electricity generating facilities.

2 (a) Effective July 1, 2009, no new electricity generating
3 covered source with a rated capacity of more than two megawatts
4 shall be permitted to allow the generation of electricity from
5 fossil fuel sources.

6 (b) Effective July 1, 2009, no electricity generating
7 covered source with a rated capacity of more than two megawatts
8 and existing on July 1, 2009, shall be modified in any manner
9 that allows it to use more fossil fuel as a source of
10 electricity generation than allowed under its permit as of
11 July 1, 2009."

12 SECTION 3. Section 269-92, Hawaii Revised Statutes, is
13 amended by amending subsection (b) to read as follows:

14 "(b) The public utilities commission may establish
15 standards for each utility that prescribe what portion of the
16 renewable portfolio standards shall be met by specific types of
17 renewable electrical energy resources; provided that:

18 (1) At least fifty per cent of the renewable portfolio
19 standards shall be met by electrical energy generated
20 using renewable energy as the source;

21 (2) Where electrical energy is generated or displaced by a
22 combination of renewable and nonrenewable means, the



1 proportion attributable to the renewable means shall
 2 be credited as renewable energy; [and]
 3 (3) Where fossil and renewable fuels are co-fired in the
 4 same generating unit, the unit shall be considered to
 5 generate renewable electrical energy (electricity) in
 6 direct proportion to the percentage of the total heat
 7 value represented by the heat value of the renewable
 8 fuels [-]; and

9 (4) Effective July 1, 2009, the public utilities
 10 commission shall not approve any application to build
 11 a new generation facility with a rated capacity
 12 greater than two megawatts that uses fossil fuel as
 13 the source of electricity generation."

14 SECTION 4. Statutory material to be repealed is bracketed
 15 and stricken. New statutory material is underscored.

16 SECTION 5. This Act shall take effect on July 1, 2009.

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Akela Gish

 Michelle N. Kibben

INTRODUCED BY:

Mike Hubbard

Amore Mercado Ki

 Will Gyo

Robert Brown

S.S.T.Z.

 Clarence Michener

Ray L. Hoan

M. Hee

Runeus Kohr



Jim

Spencer

D

S.B. NO. 1671

Carol F. ...

By →

D. J. ...

Norman Sakamp

J. H. ...

Barry H. Baker

Elizabeth Ann Oakland

Arvid Y. ...



Report Title:

Fossil Fuel; Electric Generation; Air Pollution; Renewable

Description:

Prohibits the approval of any new electricity generating facilities using fossil fuel and the modification of existing electricity generating facilities to allow the use of more fossil fuel.





**DEPARTMENT OF BUSINESS,
ECONOMIC DEVELOPMENT & TOURISM**

LINDA LINGLE
GOVERNOR
THEODORE E. LIU
DIRECTOR
MARK K. ANDERSON
DEPUTY DIRECTOR

No. 1 Capitol District Building, 250 South Hotel Street, 5th Floor, Honolulu, Hawaii 96813
Mailing Address: P.O. Box 2359, Honolulu, Hawaii 96804
Web site: www.hawaii.gov/dbedt

Telephone: (808) 586-2355
Fax: (808) 586-2377

Statement of
THEODORE E. LIU
Director
Department of Business, Economic Development, and Tourism
before the
SENATE COMMITTEE ON COMMERCE AND CONSUMER PROTECTION
Friday, February 27, 2009
9:30 a.m.
State Capitol, Conference Room 229

in consideration of

SB 1671
RELATING TO FOSSIL FUELS

Good afternoon, Chair Baker, Vice Chair Ige, and Members of the Committee.

Senate Bill 1671 prohibits the permitting of new electricity generating facilities using fossil fuel, and the modification of existing facilities to allow the use of more fossil fuel. These provisions are necessary for and contribute to the Hawaii Clean Energy Initiative's goal to transition Hawaii's energy sector to 70% non-fossil based sources by 2030. The Department of Business, Economic Development, and Tourism (DBEDT) strongly supports this bill.

The transformation to a clean energy economy and the increased use and development of renewable energy resources will greatly benefit Hawaii's economy, environment, energy security and sustainability, in many ways including achieving the following:

1. Energy security through reduced reliance on imported oil supplies and exposure to the volatile prices of the world oil market;

2. Risk management by increased diversification of the electricity generation portfolio;
3. Economic benefits including increased quality job creation, economic development and diversification, and fewer dollars leaving Hawaii's economy;
4. Reduced greenhouse emissions and the attendant negative impact on climate change, global warming, and Hawaii's environment.

This bill will contribute significantly towards achieving Hawaii's energy goals.

Currently, the Hawaii utilities use fossil fuel to generate over ninety per cent of the total electricity they sold, which represents almost twenty-five per cent of Hawaii's total oil imports. Only about nine per cent of the electricity sold is generated from renewable resources.

Any new fossil fuel-based generation installed today will have a useful lifetime of 30 to 50 years or more, and will perpetuate Hawaii's dependence on imported oil for another generation, compromising Hawaii's energy security, Hawaii's economy, and Hawaii's environment. More importantly, the economic risks and high price volatility of Hawaii's heavy dependence on imported fossil fuel for electricity generation are currently borne entirely by Hawaii's consumers. To the extent possible, future requirements for additional energy must be met by electricity generation and biofuel production from renewable resources.

This provision for no new fossil-based electric generating units greater than two megawatts which has been agreed to in the Energy Agreement between the State and the HECO companies, will help to significantly accelerate the replacement rate of fossil-based electrical generation by renewable sources of generation. It will enable significant progress towards

reducing Hawaii's current ninety per cent dependency upon petroleum based products for electricity generation, and move the State towards the goal of seventy per cent reliance upon renewable sources for generation.

The islands of Hawaii are blessed by an abundance of renewable energy resources from the sun, wind, ocean, and earth. The sun provides us abundant and free energy resource for solar water heating and for photovoltaic generation of electricity. Assessment of opportunities to harvest our ample wind and bioenergy resources have been identified and continued to be updated. The use of wave energy for electricity generation is being tested and explored, and we possess extensive and as yet untapped geothermal resources on the Big Island.

In conclusion, this bill will go a great distance to substantively enable the achievement of the State's goal of a secure, clean energy future via increasing the use and development of renewable energy resources.

Thank you for the opportunity to testify.

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Testimony Before the Senate Committee on
Commerce and Consumer Protection

By Michael V. Yamane P.E.
Senior Electrical Engineer
Kauai Island Utility Cooperative
4463 Pahee Street, Suite 1, Lihue, Hawaii, 96766-2000

Friday, February 27, 2009, 9:30 a.m.
Conference Room # 229

Senate Bill No. 1671 – Relating to Fossil Fuels.

To the Honorable Senator Baker, Chair; Senator Ige, Vice-Chair, and Members of the Committee:

Thank you for the opportunity to testify on this measure. My name is Mike Yamane, representing Kauai Island Utility Cooperative (KIUC). I am here today to testify in opposition to S.B. No. 1671 as written because this bill could negatively impact KIUC.

KIUC is the only electric cooperative in the State of Hawaii, and the only electric utility serving the people on the island of Kauai. Unlike the for-profit, investor-owned, and much larger utility companies in Hawaii, KIUC is member-owned, its shareholders and ratepayers being one in the same. KIUC members elect the Board of Directors through a democratic process and this Board, along with KIUC staff, develops KIUC's Strategic Plan.

KIUC'S Strategic Plan sets forth two priorities: (1) to generate at least 50% of our electricity from renewable energy sources by 2023, a goal that will lower KIUC's greenhouse gas emissions to 1990 levels; and (2) to commit to fair and equitable rates for reliable service. As evidenced by its priorities, KIUC is committed to breaking the State's dependence on foreign oil and to taking steps to protect our environment but KIUC also needs to ensure the viability of the cooperative for the sake of its members/customers. Thus, a balance has to be struck between what would otherwise appear to be competing interests to enable actual change over time to occur.

This bill's prohibition against approving any new electricity generating facilities using fossil fuel and the modification of existing electricity generating facilities to allow the use of fossil fuel would jeopardize that balance. This prohibition would not only limit KIUC's ability to provide affordable electricity to its members/customers but may also prevent KIUC from ensuring an adequate supply of that electricity.

KIUC respectfully requests that this bill be amended such that the prohibition only applies to solely fossil fuel electric generation units. This amendment would maintain the objective of limiting the building of generators dependent on fossil fuel but would also allow for flexibility to accommodate KIUC's unique character to ensure continued, safe and reliable service to the people of Kauai.

Thank you for the opportunity to testify today on behalf of KIUC.



Sierra Club Hawai'i Chapter

PO Box 2577, Honolulu, HI 96803
808.537.9019 hawaii.chapter@sierraclub.org

SENATE COMMITTEE ON COMMERCE AND CONSUMER PROTECTION

February 27, 2009, 9:30 A.M.

(Testimony is 1 page long)

TESTIMONY IN STRONG SUPPORT OF SB 1671

Aloha Chair Baker and members of the Committee:

The Sierra Club, Hawaii Chapter, with 5500 dues paying members statewide, *strongly supports* SB 1671, banning the addition or expansion of any new fossil fuel burning facilities for electricity generation. This historic bill will be praised for years to come. Hawaii's state policy must reflect our preferred choice of clean, indigenous, renewable sources of electricity.

Although obviously an "environmental" bill, SB 1671 makes economic sense and furthers Hawaii's long-term stability. Hawaii is the most dependent state in the nation on imported oil. Some 50 million barrels are imported annually, nearly 80% of which originate from foreign sources. In addition, over 805,000 tons of coal are imported into our state. These sources provide power for over 92% of Hawaii's electricity generation. The combustion of these resources also contributes over 23 million tons of climate changing greenhouse gas into our atmosphere annually.

Hawaii's economic, environmental, and energy security demand that we reduce the amount of fossil fuel imported and consumed in Hawaii. This bill is a solid step in that direction.

Thank you for this opportunity to provide testimony.



SENATE COMMITTEE ON COMMERCE AND CONSUMER PROTECTION

February 27th, 2008, 9:30 A.M.

Room 229

(Testimony is 2 pages long)

TESTIMONY IN STRONG SUPPORT OF SB 1671

Chair Baker and members of the committee:

The Blue Planet Foundation strongly supports strongly supports SB 1671, prohibiting the addition or expansion of any new fossil fuel burning facilities for electricity generation. Fossil fuels are simply not part of Hawaii's clean energy future. Hawai'i state policy should reflect our preferred energy future powered by clean, indigenous, renewable sources of electricity.

Hawai'i is the most dependent state in the nation on imported oil. Some 50 million barrels are imported annually, nearly 80% of which originate from foreign sources¹. In addition, over 805,000 tons of coal are imported into our state². These sources provide power for over 92% of Hawaii's electricity generation. The combustion of these resources also contributes over 23 million tons of climate changing greenhouse gas into our atmosphere annually³. Hawaii's economic, environmental, and energy security demand that we reduce the amount of fossil fuel imported and consumed in Hawai'i.

Senate Bill 1671 addresses that need by prohibiting the permitting of future fossil fuel-fired electricity generating facilities in the state. To be clear, SB 1671 is not a prohibition on existing fossil fuel electricity generating facilities; it is prospective in nature, only addressing future projects. Further, it exempts small (less than 2 MW) generators that are used for backup generation by hospitals and other emergency needs—an exemption that can be revisited by the legislature in the future as more capable storage technologies come online or indigenous biofuel sources become more readily available.

¹ The State of Hawaii Data Book 2007

² *Ibid.*

³ ICF International. Inventory of Greenhouse Gas Emissions and Sinks in Hawaii: 1990 and 2007. December 2008.

Because oral testimony will (understandably) not be accepted at your committee hearing, Blue Planet wanted to respond in this written testimony to an issue raised by Alexander & Baldwin in their prior testimony. **Blue Planet is strongly opposed to the suggestion that this measure be weakened by allowing the development of new electricity generating sources that use fossil fuel—no matter the percentage of coal or oil burned.**

1. First, such an allowance undermines the intent of the measure, which is to set a policy that fossil fuels are simply not part of Hawaii's clean energy future.
2. Second, such a "percentage" amendment is ripe for abuse and makes enforcement of the law very difficult.
3. Finally, the suggested amendment may unfairly reward one technology over another. The assertion made by A&B is that biomass is either not of high enough quality for combustion or that the facility cannot always operate, rendering biomass an intermittent source of power. Wind and solar, however, are also intermittent sources of power. Should a wind developer be allowed to burn coal to produce power for the times when the wind isn't blowing? Or a photovoltaic facility run a oil-fired turbine at night?

Hawaii's fossil fuel prohibition—again, for future facilities—should be clear and simple: no few fossil fuel electricity generating facilities.

Enactment of SB 1671 in its current form will make Hawai'i the first state in the nation to prospectively disallow fossil fuel power plants. It will draw national and likely international media attention, and send a clear market signal that Hawai'i is serious about transforming to clean, indigenous sources of energy.

Blue Planet Foundation is committed to creating Hawaii's clean energy future. Our goal is making Hawai'i energy independent by 2020. New fossil fuel facilities play no role in Hawaii's clean energy future. Please pass SB 1671 in its current form to help ensure that we stay on the right path for a sustainable Hawai'i.

Thank you for the opportunity to testify.

**SB 1671
RELATING TO FOSSIL FUELS**

**PAUL T. OSHIRO
MANAGER – GOVERNMENT RELATIONS
ALEXANDER & BALDWIN, INC.**

FEBRUARY 27, 2009

Chair Baker and Members of the Senate Committee on Commerce & Consumer Protection:

I am Paul Oshiro, testifying on behalf of Alexander & Baldwin, Inc. (A&B) and its agricultural company Hawaiian Commercial & Sugar Company on SB 1671, "A BILL FOR AN ACT RELATING TO FOSSIL FUELS."

Hawaiian Commercial & Sugar Company (HC&S) has been in operation for over 125 years. While Hawaii's many other sugar companies have shut down over the years, HC&S has been fortunate, through significant investments in our agricultural infrastructure and operations and the implementation of our diversified bio-production program, to have sustained our operations and continue as a major employer in the State of Hawaii. Today, as we face increasingly lower margins from raw sugar production because of flat commodity prices along with increasing production costs, HC&S is in the process of transitioning from a primary producer of commodity sugar into the production of specialty sugar and bio-based products. In addition to being the sole supplier of Sugar In The Raw, the little brown packets of sugar seen at restaurants and coffee shops across the nation, HC&S is also expanding production and sales of our specialty Maui Brand Sugar.

HC&S also generates biomass produced electricity for its sugar milling, irrigation pumping, and other internal operations and provides electricity to Maui Electric Company (MECO) for general community use. The source of fuel for this biomass electricity is bagasse, the residual fiber of the sugar cane plant. Not only does HC&S provide approximately 7% of MECO's total electricity, HC&S is a firm power source to MECO (i.e. committed power delivery, not on an 'as available' basis), and has played a significant role in the restoration of MECO's electrical service during power outages.

This bill prohibits the development of new facilities and the modification of existing facilities with a rated capacity of more than two megawatts that generate electricity from fossil fuel sources. While HC&S's biomass power generating facilities are fueled primarily by sugar cane bagasse, there is a need for these generating facilities to periodically burn an amount of fossil fuel to maintain stable boiler operations (biomass fuel quality can vary depending on harvesting and mill operations), to remain in compliance with air emission regulations, and to meet firm power commitments to MECO, particularly during the off season maintenance period when bagasse is not available. We respectfully request your consideration to incorporate amendments into this bill to ensure that facilities that utilize biomass as its primary source of fuel for the generation of electricity are excluded from the scope of this bill. We have attached amended language for your consideration.

Your consideration to incorporate the above mentioned amendments into this bill is sincerely appreciated. Thank you for the opportunity to testify.

SB 1671 SD1 (CPN PROPOSED)

RELATING TO FOSSIL FUELS.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF HAWAII:

SECTION 1. The legislature finds that fossil fuel use is not part of Hawaii's clean, independent, and sustainable energy future. All fossil fuel used in Hawaii is imported from thousands of miles away by ship. The burning of fossil fuel degrades the air quality and the State's image as the "Health State" and a clean destination.

The legislature further finds that carbon dioxide from fossil fuel consumption is implicated in global climate change and may have profound consequences on the State's environment and quality of life. Current scientific consensus predicts a very different future from what we are accustomed to, if heat-trapping greenhouse gas emissions continue unabated. The Pacific ocean may inundate most of Waikiki, the business district in Honolulu, and coastal resort areas on other islands. Saltwater intrusion may contaminate island aquifers and more frequent storms and hurricanes may strike the islands. Prolonged droughts and subtle shifts in island microclimates may rapidly increase the extinction of endangered plants and animals. The State can play a pivotal role in utilizing technologies that reduce humankind's contribution to global

climate change by transitioning away from fossil fuel sources to generate electricity and demonstrating technologies that reduce negative effects on global climate change.

The legislature further finds that the State's dependency on foreign fossil fuel results in the annual outflow of billions of dollars from the state economy. In 2005, the State imported over 51,000,000 barrels of petroleum and 805,000 short tons of coal. In the summer of 2008, the price per barrel of oil exceeded \$140. As a result, billions of dollars are directly exported from the State each year. Efforts to dramatically reduce fossil fuel consumed in the State will benefit both the economy and the environment.

The purpose of this Act is to align the State's energy policy with the State's preferred clean energy future by prohibiting new or expanded [~~fossil fuel~~] power plants that generate electricity solely from fossil fuel sources.

SECTION 2. Chapter 342B, Hawaii Revised Statutes, is amended by adding a new section to be appropriately designated and to read as follows:

"§342B- Fossil fuel electricity generating facilities.

(a) Effective July 1, 2009, no new electricity generating covered source with a rated capacity of more than two megawatts shall be permitted to allow the generation of electricity **solely** from fossil fuel sources.

(b) Effective July 1, 2009, no electricity generating covered source that generates electricity solely from fossil fuel sources with a rated capacity of more than two megawatts and existing on July 1, 2009, shall be modified in any manner that allows it to use more fossil fuel as a source of electricity generation than allowed under its permit as of July 1, 2009."

SECTION 3. Section 269-92, Hawaii Revised Statutes, is amended by amending subsection (b) to read as follows:

"(b) The public utilities commission may establish standards for each utility that prescribe what portion of the renewable portfolio standards shall be met by specific types of renewable electrical energy resources; provided that:

- (1) At least fifty per cent of the renewable portfolio standards shall be met by electrical energy generated using renewable energy as the source;
- (2) Where electrical energy is generated or displaced by a combination of renewable and nonrenewable means, the proportion attributable to the renewable means shall be credited as renewable energy; ~~and~~
- (3) Where fossil and renewable fuels are co-fired in the same generating unit, the unit shall be considered to generate renewable electrical energy (electricity) in direct proportion to the percentage of the total heat

value represented by the heat value of the renewable fuels[-]; and

- (4) Effective July 1, 2009, the public utilities commission shall not approve any application to build a new generation facility with a rated capacity greater than two megawatts that **solely** uses fossil fuel as the source of electricity generation."

SECTION 4. Statutory material to be repealed is bracketed and stricken. New statutory material is underscored.

SECTION 5. This Act shall take effect on July 1, 2009.

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, February 25, 2009 8:00 AM
To: CPN Testimony
Cc: egreenia@hhsc.org
Subject: Testimony for SB1671 on 2/27/2009 9:30:00 AM

Testimony for CPN 2/27/2009 9:30:00 AM SB1671

Conference room: 229
Testifier position: oppose
Testifier will be present: No
Submitted by: Earl Greenia
Organization: Individual
Address: 79-1019 Haukapila St Kealahou HI
Phone: 808-322-4433
E-mail: egreenia@hhsc.org
Submitted on: 2/25/2009

Comments:

Although this bill affects a limited number of businesses in Hawaii, it sets a precedence and provides momentum to the national movement, which will have a detrimental impact on most companies.