

HB 1464 HD3



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

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Statement of
THEODORE E. LIU
Director

Department of Business, Economic Development, and Tourism
before the

**SENATE COMMITTEE ON
ENERGY AND ENVIRONMENT**

Tuesday, March 17, 2009
3:00 p.m.
State Capitol, Conference Room 225

in consideration of
HB 1464 HD3
RELATING TO ENERGY RESOURCES.

Good Afternoon, Chair Gabbard, Vice Chair English, and Members of the Committee.

The Department of Business, Economic Development, and Tourism (DBEDT) supports the intent of House Bill 1464, HD3, but would like to offer amendments. This bill establishes comprehensive measures to promote the increased use and development of renewable energy resources that will greatly benefit the State's economy, environment, energy security and sustainability. Our proposed amendments relate to (1) fossil fuel-based generation, (2) the definition of renewable energy facility in Section 201N-1, (3) the permit processing facilitation in Section 201N-4, (4) the energy efficiency portfolio standards in Section 269, and (5) the administration of the variance applications relating to solar water heater systems in Act 204 as provided in Section 14 of this bill. DBEDT's proposed modifications are aimed at clarifying and strengthening the provisions of HB 1454 HD3, to effectively achieve its intent to promote the increased use and development of renewable energy resources.

HB 1464 HD3, will help achieve Hawaii's transformation to a clean renewable energy economy with its attendant benefits including:

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; and
4. Reduced greenhouse emissions and the attendant negative impact on climate change, global warming, and Hawaii's environment.

HB 1464 HD3, amends §196 and §269-7.5 to prohibit the permitting of a new electrical generation unit that produces power solely from fossil fuel except under extraordinary circumstances as determined by the Public Utilities Commission. While DBEDT supports these provisions, we believe that in order to optimally strengthen and accelerate the achievement of the RPS and reduce Hawaii's dependence on imported fossil fuels the prohibition on the use of fossil fuel for electricity generation should extend to any generation units with the capacity to use any fossil fuel. DBEDT also believes that allowing the PUC the authority to allow a new fossil-based power generation units under "extraordinary circumstances" as determined by the Commission weakens this prohibition, and further postpones the day when Hawaii truly achieves energy security and independence. We recommend that the amendments to §196 and §269-7.5 are

changed to be consistent with the proposed amendments provided in SD 1671, SD1, to read as follows:

“§196- New electrical generation facility; permit prohibition. (a) Effective July 1, 2009, no state or county agency shall issue a permit for the construction of a new electric generation facility with rated capacity of more than two megawatts that is owned or operated by a public utility as defined in §269-1, to generate electricity from fossil fuel sources, (b) Effective July 1, 2009, no electric generation facility with rated capacity of more than two megawatts that is owned or operated by a public utility as defined in §269-1, shall be modified in any manner that allows it to use more fossil fuel as a source of electricity generation than is allowed under its permit as of July 1, 2009.

“§269-7.5 Certificate of public convenience and necessity. (f) Effective July 1, 2009, the public utilities commission shall not approve any application by a public utility as defined in §269-1 to build a new generation facility with a rated capacity greater than two megawatts that uses fossil fuel as the source of electrical generation;”

HB1464 HD3, provides significant amendments to Hawaii’s Renewable Portfolio Standards (RPS) law mandated in Section 269-91, HRS, (1) to require that the electrical energy savings from efficiency measures shall not count towards the RPS starting in 2015; (2) to increase the RPS goal from twenty per cent to twenty-five per cent of net electricity sales by December 31, 2020; and (3) to establish a forty per cent RPS goal by 2030. This bill requires that beginning 2015, one hundred per cent of the renewable portfolio standards shall be met by electrical generation from renewable energy resources. DBEDT strongly supports these amendments to Hawaii’s RPS law, and to further promote the use of renewable resources, we

would like to recommend that the amendment to §269-91 (2) is changed to read as follows: “... provided that such electrical energy savings except those brought about by customer-sited, grid-connected renewable energy systems, will not count toward the renewable portfolio standards beginning in January 1, 2015;”

Another major provision in this bill which supports the achievement of the HCEI goal is the creation and designation of renewable energy zones to increase the use and development of renewable energy resources, as well as the identification and qualification of transmission projects and infrastructure crucial to the development of renewable energy resources which may receive assistance in accessing the use of special purpose revenue bonds for financing. We strongly support the bill’s proposed inclusion of these statutory functions of creating and designating renewable energy zones, and identifying, qualifying, and assisting access to the use of special purpose revenue bonds to finance transmission projects and infrastructure, in the Energy Resources Coordinator’s statutory roles and functions as established in Section 196-4, Hawaii Revised Statutes.

DBEDT supports the amendment provided in Section 7 of this bill to expand the definition of “qualified business” in Section 209E-2, Hawaii Revised Statutes, to include businesses engaged in development or production of various types of renewable energy which may qualify for State enterprise zone tax incentives and regulatory flexibility which stimulate business, agricultural, and industrial growth in areas that would result in neighborhood revitalization. Adding other forms of renewable resources including sun, falling water, biogas, geothermal, ocean water, currents, and waves, biomass, biofuels and hydrogen production from renewable energy sources into the Enterprise Zone (EZ) program is consistent with the current approved business activities which presently include wind energy production. The incentives

provided for in the EZ program will provide the impetus to help attract these businesses to Hawaii.

Another major amendment provided by this bill relates to the renewable energy projects' permitting and facilitation. DBEDT supports Section 8 of this bill which proposes to expand the duties of the renewable energy facilitator by specifying the inclusion of renewable energy facilities' land parcels, production structure or equipment, transmission lines, and on-site infrastructure necessary for the development of renewable energy resources, in the definition of renewable energy projects that are qualified for the facilitator's services.

DBEDT generally supports Part V of this bill, which amends the definition of a "Renewable energy facility" in Section 201N-1, and clarifies the permitting process and approval in Section 201N-4. However, the proposed definition of "Renewable energy facility" will only include new renewable energy facility projects with capacity between 5 megawatts and 200 megawatts, or new biofuel production facility project with production capacity of exactly one million gallons annually, to qualify for designation as renewable energy facilities for the purpose of receiving permitting facilitation process assistance. This proposed language effectively excludes new renewable energy projects with capacity greater than 200 megawatts, and new biofuel facilities with capacity greater than one million gallons annually. DBEDT supports amending the definition of a renewable energy facility in Section 201N-1, and recommends to modify the proposed amendment to read as follows: **"Renewable energy facility or "facility" means a new facility located in the [State] state with the capacity to produce from renewable energy at least two hundred megawatts of electricity[-] ; provided that new electricity generation facilities with rated capacity between five and two hundred**

megawatts and new biofuel production facilities with capacity of at least one million

gallons per year may apply to the coordinator for designation as renewable energy facility, with such designation to be at the sole discretion of the coordinator.”

Section 10 of this bill further promotes the expeditious processing of permits for renewable energy projects by amending Section 201N-4, HRS. DBEDT supports the proposed amendments, and for clarity, we would recommend the inclusion of the following language in Section 201N-4 before the last sentence in this section: **“If no further processing and action are reported by the permitting agency within five months, the coordinator may deem the permit approved.”**

We strongly recommend that the following be included under Part VI, Section 12:

1. Including a transition date of displacement or off-set technologies to Efficiency Portfolio Standards.

“Beginning in 2015 electrical energy savings brought about by the use of renewable displacement or off-set technologies, including solar water heating and sea-water air-conditioning district cooling systems, shall count toward this standard.”

We recommend the inclusion of renewable substitution technologies starting in 2015 since SB1258 SD1, relating to Renewable Portfolio Standards, which we support, allows for inclusion of renewable substitution technologies until 2014. Therefore, in 2015 there will be a transition of renewable displacement technologies moving from the Renewable Portfolio Standards to the Efficiency Portfolio Standards.

2. Allowing electric utility companies to aggregate their portfolio.

As with Renewable Portfolio Standards, we recommend that the following be included for efficiency portfolio standards with the following:

“An electricity utility company and its electric utility affiliates may aggregate their efficiency portfolios in order to achieve the efficiency portfolio standard.”

3. Achieving and evaluating the Efficiency Portfolio Standard and annual reporting:

The public benefits fee administrator under part VII, chapter 269 shall be primarily responsible for achieving the level of energy-efficiency described in this section by instituting energy-efficiency programs as provided under chapter 269. The public benefits fee administrator shall submit annual reports to the public utilities commission by December 1 of each year, beginning in 2011, reporting energy savings achieved during the previous year. The public utilities commission shall monitor and evaluate the progress of energy savings performance against the energy-efficiency portfolio standard.

The public utilities commission shall evaluate the energy-efficiency portfolio standard every five years, beginning in 2013, and may revise the standard, based on the best information available at the time, to determine if the energy-efficiency portfolio standard established by this section remains achievable. The commission shall report its findings and revisions to the energy-efficiency portfolio standard, based on its own studies and other information, to the legislature no later than twenty days before the convening of the regular session of 2014, and every five years thereafter.

Regarding Section Part VI, Section 14, we strongly recommend transfer of the variance to the Public Benefits Fee Administrator. Following existing statutes, the Public Utilities

Commission (PUC) authorized utilities to collect from ratepayers a demand-side management surcharge and has transferred these funds collected to a third-party administrator, known as the PBFA and contracted by the PUC. The moneys transferred, known as the Public Benefits Fee, are used to support energy-efficiency and demand-side management programs and services, subject to the review and approval of the PUC. Statutes also authorize the PUC to adopt or establish standards for solar water heating systems for use of the Public Benefits Fee. The amendments to HB1464, HD3 would allow the PUC to contract with the PBFA to develop standards for solar water heating. Therefore, we support transfer of variance approval to the PBFA and offer an amendment to address any utility which collects the demand-side management surcharges but is not affected by the PBFA.

We offer an amendment to clarify administration of the variance by utilities not served by the PBFA: “For any utility which has received public utility commission approval to collect a demand side management surcharge from ratepayers, and which is not served by the public benefits fee administrator, the utility shall administer the variance and any standards established for solar water heating systems.” Since the surcharge is used to support utility energy-efficiency and demand-side management programs, including solar water heating programs and standards, administration of the variance is in accord with these programs.

We defer to the Department of Taxation on tax matters.

Thank you for the opportunity to testify.

LINDA LINGLE
GOVERNOR

JAMES R. AIONA, JR.
LT. GOVERNOR



KURT KAWAFUCHI
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**SENATE COMMITTEE ON ENERGY & ENVIRONMENT
TESTIMONY REGARDING HB 1464 HD 3
RELATING TO ENERGY RESOURCES**

TESTIFIER: KURT KAWAFUCHI, DIRECTOR OF TAXATION (OR DESIGNEE)

DATE: MARCH 17, 2009

TIME: 3PM

ROOM: 225

This bill provides comprehensive amendments to encourage alternative energy development in Hawaii.

The Department of Taxation (Department) offers comments and defers to the Department of Business, Economic Development, and Tourism regarding the effect of this measure on incentivizing alternative energy.

SUPPORT FOR ALTERNATIVE ENERGY—The Department strongly supports the encouragement and implementation of alternative energy systems in Hawaii in order to lessen the State's dependence on alternative energy. As fossil fuel and petroleum prices become more volatile, Hawaii's ability to generate its own energy from home will make the State more secure and less reliant on others. The Department concurs that alternative energy generation is particularly beneficial given Hawaii's relative location (*i.e.*, to the sun).

BUILDING PERMIT LANGUAGE IS UNCLEAR—The Department prefers the language contained in SB 1173 SD 2. The Department understands the intent that only "new construction" homes are to be disqualified. However, the law is not that clear. A building permit is necessary for any addition or amendment to a home, as well as installation of the energy system. The issue then, is that the term "building permit" could be interpreted to be any permit, which could disqualify a taxpayer. However, by eliminating the permit language, as this bill does, any single-family home may qualify for the solar thermal credit even newly-constructed homes where the solar water heater is mandated by HRS § 196-6.5.

Preferred language could read:

"No taxpayer shall be allowed a credit under this section for the portion of a renewable energy technology system required by section 196-6.5 that is installed and placed in service on any newly constructed single-family residential property authorized by a building permit issued on or after January 1, 2010."

REVENUE IMPACT—Assuming a current effective date, this bill results in a revenue loss of \$3.2 million in FY10, \$4.2 million in FY11, and \$5.5 million per year in FY12, FY13 and FY15.

TAXBILLSERVICE

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TAX FOUNDATION OF HAWAII

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SUBJECT: INCOME, Renewable energy resources

BILL NUMBER: HB 1464, HD-3

INTRODUCED BY: House Committee on Finance

BRIEF SUMMARY: Amends HRS section 235-12.5(a)(2)(A) relating to wind energy systems to add the phrase “unless all or a portion of the system is used to fulfill the substitute renewable energy requirement pursuant to HRS section 196-6.5(a)(3), then the credit shall be reduced by 20% of the actual system cost or \$1,500, whichever is less.”

Also amends HRS section 235-12.5(a)(3)(A) relating to photovoltaic energy systems to add the phrase “unless all or a portion of the system is used to fulfill the substitute renewable energy requirement pursuant to HRS section 196-6.5(a)(3), then the credit shall be reduced by 35% of the actual system cost or \$2,250, whichever is less.”

Amends HRS section 209E to replace the provision allowing a business engaged in producing electric power from wind energy to a public utility company for resale to the public with an expanded provision to include a business engaged in the development or production of fuels, thermal energy or electrical energy from renewable resources, including: (1) wind; (2) sun; (3) falling water; (4) biogas, including landfill and sewage-based digester gas; (5) geothermal; (6) ocean water, currents and waves including OTEC; (7) biomass, including biomass crops, agriculture and animal residues and wastes, and solid waste; (8) biofuels; and (9) hydrogen produced from renewable energy sources, as eligible to receive enterprise zone benefits.

Makes other nontax amendments to HRS sections 196-6.5 and 269-44.

EFFECTIVE DATE: July 1, 2020

STAFF COMMENTS: Last year the legislature by Act 204, SLH 2008: (1) provided that after 1/1/10 no building permit shall be issued for a single-family dwelling that does not include a solar water heater system; (2) provided that the income tax credit for solar thermal energy systems shall only be available to single-family residential properties for which a building permit was issued prior to 1/1/10; and (3) provided that the renewable energy technologies tax credit may not be claimed by residential home developers for systems placed in service in 2009. While Act 204 added language to HRS section 196-6.5(a)(3) referring to a “substitute energy technology system, as defined in HRS section 235-12.5” it is questionable what constitutes a substitute energy technology system as there is no such definition in HRS section 235-12.5. Absent such a definition, it is unclear how the credit amount is to be calculated if this measure is enacted.

Act 160, SLH 2000, expanded the enterprise zone laws by revising the definition of qualified businesses to include businesses engaged in producing electric power from wind energy which is subsequently sold

to a public utility for resale, making the business eligible for enterprise zone benefits. The proposed measure would further extend enterprise zone benefits to businesses engaged in the development or production of fuels or thermal energy or electrical energy from renewable resources.

In an enterprise zone, businesses are attracted and encouraged to relocate to the zone through tax incentives, bonds, and other appropriate measures. Businesses located in an enterprise zone may claim a credit against taxes paid for a period of seven years and also allows the sale of items sold by such businesses to be exempt from the general excise tax.

While this proposal makes numerous other directives in the drive for renewable energy sources, the changes being proposed to the tax credits attempt to clarify the application and restrictions of the credit. However, in its attempt to do so, it is still not clear what a substitute energy technology system is. Given the vagueness of the term, who will be able to make that determination and, therefore, its eligibility for the credit?

Digested 3/16/09

Testimony Before the Senate Committee on
Energy and Environment

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

Tuesday, March 17, 2009, 3:00p.m.
Conference Room # 225

House Bill No. 1464, H.D. 3 – Relating to Energy Resources.

To the Honorable Mike Gabbard, Chair; J. Kalani English, 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 support of H.B. No. 1464, H.D. 3 but would like to provide comment on the provision of the bill regarding the prohibition against the building of new generators utilizing fossil fuels.

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.

That balance could be jeopardized if this bill contained an absolute prohibition against the building of new generators that burn fossil fuels. Reasonably, the prohibition in sections 1 and 2 of this bill does not go to that extreme.

Sections 1 and 2 prohibit the building of generators that utilize *solely* fossil fuels and provide the Public Utilities Commission with the discretion to lift the prohibition under extraordinary circumstances. This flexibility allows utilities such as KIUC to work toward increasing its renewables while still being able to ensure an adequate supply of electricity, at an affordable rate, to its members/customers.

Testimony on H.B. No. 1464, H.D. 3

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March 16, 2009

Sections 1 and 2 advance the objective of limiting the building of generators dependent on fossil fuel but also allow for the 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.

Testimony Before the Senate Committee
On
Energy and Environment

March 17, 2009 (3:00 PM)

H.B. 1464 H.D. 3 RELATING TO ENERGY RESOURCES

By: Alan Hee
Energy Services Department
Hawaiian Electric Company, Inc.

Chair Gabbard, Vice Chair English, and Members of the Committee:

My name is Alan Hee—I am the Manager, Energy Services Department at Hawaiian Electric Company. I am testifying on behalf of Hawaiian Electric Company (HECO) and its subsidiaries, Hawaii Electric Light Company (HELCO) and Maui Electric Company (MECO), hereinafter collectively referred to as Hawaiian Electric.

We support the intent H.B. No. 1464 H.D. 3, which proposes comprehensive measures for increasing the production and use of renewable energy in Hawaii, but offer some amendments to clarify language currently in the bill.

Renewable Portfolio Standards

In particular, we support the new language under section (3) of the definition of “renewable electrical energy” in HRS sec. 269-91 that provides that electrical energy savings shall not include customer-sited, grid-connected photovoltaic systems beginning on January 1, 2015. This language is necessary to make it clear that generation of renewable energy using photovoltaic systems would continue to be counted toward RPS after 2014, when electrical energy savings are no longer factored into the calculation of RPS.

However, as a clarifying amendment (in **bold**), we propose that the language be moved from section (3) of the definition to section (2), where “customer-sited, grid-connected renewable energy systems” is cited as a type of displacement or off-set technology used to bring about electrical energy savings. Section (2) of the definition of “renewable electrical energy” would then read:

- 2) Electrical energy savings brought about by the use of renewable displacement or off-set technologies, including solar water heating, sea-water air-conditioning district cooling systems, solar air-conditioning, and customer-sited, grid-connected renewable energy systems; provided that, beginning January 1, 2015, electrical energy savings shall not count towards renewable energy portfolio standards; and

provided that beginning January 1, 2015, electrical energy savings shall not include customer-sited, grid-connected photovoltaic systems;

Energy Efficiency Portfolio Standards

HECO supports the development of an energy efficiency portfolio standard. It reflects the commitment of the state to energy efficiency and creates a yardstick against which we can measure our progress as a community towards energy independence.

HECO also supports giving the PUC the authority to adjust the 2030 standard to maximize cost-effective energy efficiency programs and technologies. It is the right agency to administer this standard because it has been involved in the utilities' integrated resource planning and demand-side management programs for over 13 years. The bill also provides the PUC the opportunity to review recommendations from the public benefits fund administrator, who will be administering the energy efficiency programs later this year, and gather input from other industry participants.

Mandatory Solar Water Heating, Act 204, Session Laws of Hawaii 2008

HECO also supports the intent of this bill to clarify provisions of Act 204, with respect to the availability of tax credits for retrofit installations of solar water heater systems and the effort to strengthen solar water heating system quality assurance through the development of system standards.

HECO believes that the intent of Act 204 was to wean our state off our dependency on fossil fuel, but also recognize that solar water heaters may not be the optimal solution in all situations. Examples of when solar water heating may not be the optimal solution include when hot water requirements are low or are seasonal or the dwelling is shaded for most of the solar day. In those cases, other energy efficient water heating technologies, as well as gas, can be considered because the installation of a solar water heater is either impracticable due to poor solar resource or not cost effective. Therefore, HECO suggests amending the bill to allow these other water heating technologies if solar water heating is impractical. Our proposed language is attached.

We believe that with these amendments, the law enacted by Act 204 will truly reflect the Legislature's intent of weaning our state off our dependency on fossil fuel.

In conclusion, Hawaiian Electric supports H.B. No. 1464 H.D. 3 with the above and attached amendments. Passage of this bill would provide further guidance and strong support for efforts to continue growth in the use of renewable energy throughout the State.

Thank you for the opportunity to testify.

Suggested amendments to HB 1464, HD 3

HECO changes are noted in **BOLD**:

SECTION 14. Section 196-6.5, Hawaii Revised Statutes, is amended by amending subsections (a) and (b) to read as follows:

"(a) On or after January 1, 2010, no building permit shall be issued for a new single-family dwelling that does not include a solar water heater system that meets the standards established pursuant to section 269-44, unless the energy resources coordinator approves a variance. A variance application shall only be [~~approved~~] accepted if submitted by an architect or mechanical engineer licensed under chapter 464, who attest that:

- (1) Installation is impracticable due to poor solar resource;
- (2) Installation is cost-prohibitive based upon a life cycle costs-benefit analysis that incorporates the average residential utility bill and the cost of the new solar water heater system with a life cycle that does not exceed fifteen years;
- (3) A [~~substitute~~] renewable energy technology system, as defined in section 235-12.5, is [~~used~~] substituted for use as the primary energy source for heating water; or
- (4) A demand water heater device approved by Underwriters Laboratories, Inc., is installed; provided that at least one other gas appliance is installed in the dwelling **and the first or second variances in subsection (a) (1) and (a) (2) of this section are met.** For purposes of this paragraph, "demand water heater" means a gas-tankless instantaneous water heater that provides hot water only as it is needed.



P.O. Box 3000
Honolulu, HI 96802-3000

March 16, 2009

Testimony on HB1464, HD3 Relating to Energy Resources

Aloha Chair Gabbard; Vice Chair English and Members of the Energy and Environmental Protection Committee:

My name is Thomas Young. I am the Senior Vice President Operations of The Gas Company. Thank you for the opportunity to provide testimony on HB1464, HD3, Relating to Energy Resources.

The Gas Company would like to provide comments in particularly on HB1464, HD3 Part III, which clarifies provisions of Act 204 (2008) related to solar water heaters. Last year, The Gas Company supported passage of Act 204 (2008) because its intent was to promote greater energy efficiency while providing more consumer options in all new home construction beginning January 2010.

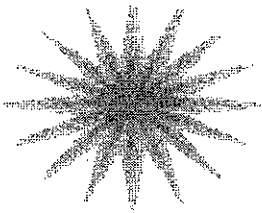
When the Legislature enacted Act 204 (2008), crude oil prices had risen from \$65 to over \$100 per barrel in less than a year. The Legislature found that a conventional electric water heater tank accounts for 30 to 35 per cent of a home's electric bill and that a replacement through the installation of a solar water heater system, a comparable renewable energy system, or a demand water heater system in new homes could result in energy and cost savings to the homeowner. The one time, upfront cost for any one of these water heating systems is similar.

Act 204 (2008) promotes energy efficiency and consumer options by allowing an energy efficient demand water heater system along with one other gas appliance as a variance to solar water heating systems in new home construction. The Act recognizes that a demand water heater system is an energy-efficient alternative. Lastly, the Act provides that homeowners and builders have access to a number of energy-saving options and alternatives.

The gas we manufacture at Campbell Industrial Park and deliver to homes and business on Oahu is made from by-products of oil imported to produce gasoline, diesel, and other petroleum products. It does not require us to import additional crude oil.

Act 204 (2008), as passed last year with the inclusion of energy efficient water heating systems, had broad-based support. This landmark legislation is a significant and positive step towards achieving the Legislature's vision of promoting energy security and reducing Hawaii's dependence on petroleum. We believe Act 204 (2008) should be given a change to work.

Thank you for allowing The Gas Company to present these comments on HB 1464, HD3 Part III.



Honolulu Seawater Air Conditioning, LLC

Affiliate of Renewable Energy Innovations, LLC, the COOL GREEN & CLEAN™ Company

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Testimony on

H.B. NO. 1464, H.D. 3 – RELATING TO ENERGY RESOURCES

Before the

Senate Committee on Energy and Environment
Tuesday, March 17, 2009, 3:00 p.m., Conference Room 225

By

David Rezachek, Consultant
Honolulu Seawater Air Conditioning LLC

Good afternoon Chair Gabbard, Vice Chair English, and members of the Committee. My name is David Rezachek and I am testifying on behalf of Honolulu Seawater Air Conditioning, LLC (HSWAC).

HSWAC has previously stated its objection to removing renewable energy electricity displacement technologies from the State's renewable energy portfolio standard.

H.B. 1464, H.D. 3, proposes to do just that by 2015 without any guarantee that an energy efficiency portfolio standard would be in place, or that any of the renewable energy electricity displacement technologies, such as SWAC, would be included.

HSWAC has also expressed other concerns about trying to redefine SWAC, solar water heating, and solar air conditioning as something other than renewable technologies.

Therefore, HSWAC cannot support Part I of this bill as it is currently written.

Part II of this bill provides a list of methods that the Energy Resources Coordinator can use to assist renewable energy development in Hawaii. It is not clear if this assistance would apply to renewable energy electricity displacement technologies. HSWAC respectfully requests that these technologies be included in this Part.

Part III of this bill adds a variety of renewable energy technologies to the definition of "qualified business" under the State's enterprise zone program. HSWAC supports the intent of this Part. HSWAC assumes that SWAC is included as thermal energy from a renewable resource (ocean water). HSWAC would appreciate a confirmation of this interpretation.

Parts IV and V, of this bill, facilitate the permitting of renewable energy facilities. HSWAC respectfully requests that these sections be amended to provide similar assistance to renewable energy electricity displacement technologies.

Part VI directs the Hawaii Public Utilities Commission to establish an Energy Efficiency Portfolio Standard.

HSWAC, and other testifiers, have previously supported the establishment of an energy efficiency portfolio standard for various energy efficiency technologies that are now incorrectly included in the State's renewable portfolio standard.

At the same time, HSWAC, and others, have provided considerable evidence as to why renewable energy electricity displacement technologies should continue to be included in the renewable energy portfolio standard.

Renewable energy electricity displacement technologies include solar water heating, seawater air conditioning district cooling systems, and solar air-conditioning.

While these technologies do not generate electricity, they do provide electricity savings through displacement of the electricity used to perform the same tasks. They definitely use renewable energy resources, but they are not energy efficiency technologies.

HSWAC maintains that displacement of electricity use by thermal applications of renewable energy technologies, is just as important and beneficial as electricity generation from renewable resources. And, as a result, renewable energy electricity displacement technologies should continue to be part of the renewable energy portfolio standard.

HSWAC respectfully requests that this bill be deferred until:

- (1) there is agreement on consistent definitions of “renewable energy” and “energy efficiency” in proposed legislation and in the Hawaii Revised Statutes;
- (2) any changes in the RPS, and the establishment of an energy efficiency portfolio standard, occur together; and
- (3) economic, siting, and permitting assistance is provided to all renewable energy and energy efficiency technologies on an equitable basis and without regard to technology type and/or project size.

HSWAC would be happy to work with other stakeholders to accomplish these objectives.

Thank you for this opportunity to testify.



SENATE COMMITTEE ON ENERGY AND ENVIRONMENT

March 17, 2009, 3:00 P.M.

Room 225

(Testimony is 3 pages long)

TESTIMONY IN SUPPORT OF HB 1464 HD3 WITH AMENDMENTS

Chair Gabbard and members of the committee:

The Blue Planet Foundation supports House Bill 1464 HD3, an omnibus energy measure to accelerate clean energy development and efficiency in Hawai'i. We urge this Committee, however, to some critical amendments to this bill to ensure that it is effective in achieving Hawai'i's clean energy objectives.

SECTIONS 1 - 2

The first part of HB 1464 HD3 is a weak prohibition of the addition or expansion of any new fossil fuel burning facilities for electricity generation. We respectfully ask that this committee amend HB 1464 HD3 to delete the word "solely" from page 1, line 10 and page 4, line 21. Alternately, the language from SB 1671 could be used for these sections of the measure.

By including the word "solely," this measure allows a brand new coal-fired power plant to be permitted in the future as long as it burns a small percentage of biomass. This should not be the intent of this measure. To ensure that this measure produces the intended outcome—a clear policy signal that fossil fuel is not part of Hawai'i's energy future—it needs to be amended to clearly prohibit future fossil fuel facilities. Fossil fuels are simply not part of Hawai'i's clean energy future. Hawai'i state policy should reflect our preferred energy future powered by clean, indigenous, renewable sources of electricity.

To be clear, an amended HB 1464 HD3 is not a prohibition on existing fossil fuel electricity generating facilities; it is prospective in nature, only addressing future projects. It also allows the public utilities commission to grant permits for a fossil fuel facility in extraordinary circumstances—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.

Blue Planet Foundation is committed to creating Hawai'i's clean energy future. Our goal is making Hawai'i energy independent by 2020. New fossil fuel facilities play no role in Hawai'i's clean energy future.

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SECTIONS 3 - 5

Sections 3 - 5 of HB 1464 HD3 redefines and increases Hawaii's existing renewable portfolio standards. Blue Planet strongly supports this policy in conjunction with the energy efficiency portfolio standards contemplated by another measures pending before this committee. We believe that this percentage is not only achievable, but required given the new realities of fossil fuel prices and global climate change.

The original intent of the bill that became Act 95 in 2004 was to set Hawai'i down the path of producing more renewable power. Unfortunately, the "standard" enacted falls far short. The Act left major loopholes that would allow Hawaii's utilities to meet the standards without ever siting a new renewable power facility.

While Act 95 has been called a Renewable Portfolio Standard (RPS), it would be more accurate to call it an "Efficiency Portfolio Standard." House Bill 1464 HD3 will create a true RPS to drive the state's clean energy market. While striving to increase the amount of energy conservation in Hawai'i should remain a key component to the State's energy strategy, a policy to incrementally increase the amount of clean, indigenous energy generated within the state will increase Hawaii's economic security and self-sufficiency and reduce the impact of electricity production on our environment.

A true RPS would contain the following elements:

- RPS targets must be achieved only by electricity produced from renewable energy resources, and repeal the definition of energy efficiency gains as renewable resources for the purpose of the RPS;
- Eliminate "off-ramps" for failure to meet the standards; and
- Establish penalties for utilities' non-attainment of RPS target.

Finally, while we appreciate the increased RPS levels set by HB 1464 HD3, Blue Planet believes Hawai'i can be much more aggressive at increasing clean energy use. We suggest that HB 1464 be amended to contain the following RPS levels:

- **20% of net electricity sales by 2015;**
- **30% by 2020;**
- **40% by 2025; and**
- **50% by 2030.**

Setting an aggressive, clear energy efficiency standard and high renewable portfolio standard will mobilize the whole state to move towards our preferred energy future.

SECTION 6 – 7

Sections 6 and 7 of HB 1464 HD3 clarifies and further defines the duties and responsibilities of the state energy office. We view this part of HB 1464 HD3 as relatively straightforward housekeeping amendments that provide more depth in defining the duties of the increasingly important energy office.

Blue Planet believes, however, that it may be time to consider elevating the level of energy planning and implementation in Hawai'i. If we are serious about ending our addiction to fossil fuel and seek to be powered by 100% clean, renewable, and indigenous sources, the government office charged with guiding the transition deserves greater standing and funding within state government. We would support the creation of a state Hawai'i Energy Security Authority (HESA), something akin to the existing Hawai'i Tourism Authority (HTA). HESA would be a stand-alone entity, tasked with all aspects of planning, permitting, and implementation of Hawaii's clean energy future. The Authority would be funded solely from a fee on each barrel of oil imported into the state; as dependency on oil decreases, so does the work of the Authority, and the budget decreases accordingly. Given Hawaii's energy independence the status, funding, and prioritization it deserves would help ensure that we achieve our clean energy goals.

Nonetheless, the simple changes in Sections 6 and 7 of HB 1464 HD3 are supported as an interim step.

SECTIONS 8 - 10

Sections 8 - 10 of HB 1464 HD3 expands the types of projects that the renewable energy facilitator is asked to address and further defines the facilitation process. Blue Planet generally supports the intent of these changes.

SECTIONS 11 - 12

Blue Planet supports Sections 11 and 12, directing the public utilities commission (PUC) to establish energy efficiency portfolio standards. We greatly appreciate the amendments made by the previous committee on this measure to further refine the energy efficiency portfolio standards and their achievement.

Energy efficiency, unfortunately, is the "dark horse" of clean energy resources. Energy efficiency—efficient lights, appliances, electronics, behavior changes, and the like—is the largest, cheapest, safest, and fastest energy option that Hawai'i can implement. Consider:

- Energy efficiency is the fastest-growing U.S. "energy source" (growth of ~2.5 to 3.5% annually)
- National energy efficiency programs save energy at an average cost of about 3 cents/kWh -- *about 1/10 the average electricity cost in Hawaii*

- Leading states are saving over 1% additional of total electricity sales annually
- Energy efficiency provides major local economic benefits: energy efficiency is 100% obtained from investment in local homes and businesses
- Also the least visible, least understood, and most neglected

The energy efficiency portfolio standard established through HB 1464 HD3 should complement the true renewable portfolio standard in sections 5 – 6 of this measure. Setting an aggressive, clear energy efficiency standard and high renewable portfolio standard will mobilize the whole state to move towards our preferred energy future.

Blue Planet strongly urges this Committee to amend HB 1464 HD3 with language from HB 431 (sections 3 and 4) to require stringent building energy codes, thereby accelerating the creation of energy efficient construction in Hawai'i. Due to long building life, getting new buildings built as efficient as possible is critical to achieve energy independence. As buildings are the largest consumer of electricity and the building stock turns over very slowly, requiring high performance buildings for new construction and retrofitting is critical.

Unfortunately, the measure which required the counties to adopt stringent energy codes for new construction based in the International Energy Conservation Code, HB 431, did not receive a hearing. Blue Planet supports the adoption of more aggressive building code standards by the counties—30% higher than the most recent guideline established by International Energy Conservation Code (IECC). Such a stringent building code would yield the construction of high performance buildings in Hawai'i—performance that would result in much lower energy bills over the life of the home or building.

Hawai'i residents and businesses will lose a year of energy efficient and cost-saving buildings if this measure is tabled for this session. Energy efficient buildings are the cornerstone to our clean energy future. Efficiency investments pay back to Hawaii's residents and economy in numerous ways.

1. First, the investment in efficiency pays back in savings during the home or building's occupancy and use.
2. Second, building more high performance buildings is typically more labor and material intensive than structures that are inefficient, resulting in more job creation—the tradeoff being money is directed toward local jobs and contractors instead of going overseas to purchase fossil fuel.
3. Finally, building high performance buildings is the only way for Hawai'i to achieve its clean energy future. We simply cannot meet our growing energy demands in the short term without radically improving the efficiency of our buildings.

Please amend HB 1464 HD3 with sections 3 and 4 of HB 431 to truly put Hawai'i on course to achieve its energy efficiency and clean energy objectives.

SECTIONS 13 - 16

The 2008 Solar Roofs Act, Act 204, was a critical step forward toward Hawaii's clean energy future as it ensures that nearly every new home will be equipped with a solar water heater. While we strongly support the existing law, we believe that it could be improved. Specifically, Blue Planet supports the following changes to the existing solar requirement:

1. **Blue Planet supports charging the new public benefits fund administrator with the duty to accept and issue variances** instead of the energy resources coordinator at the Department of Business, Economic Development, and Tourism. We understand that there is some discussion about the legality of tasking a private entity with this somewhat regulatory responsibility, but if it is allowed, aligning the existing demand side management entity with this duty makes sense. The public benefits fund administrator should have an up-to-date understanding of the solar technology and the basis for granting or denying waivers.
2. **Blue Planet strongly supports removing the on-demand gas heater variance option.** Such an option should only be allowed (and perhaps required) if the first and second variances are met—that is, the home has poor solar resource and solar would fail the cost-effectiveness test. The variances should only be exercised in rare circumstances where solar doesn't make sense or is not cost effective. We fear that the current language in the law may provide a loophole and create new all-gas subdivisions (particularly if the Gas Company provides infrastructure to new developers to encourage gas use).
3. **Blue Planet strongly supports clarifying that the solar tax credits for homes built prior to January 1, 2010, remain in place.** We believe this was the clear intent of the original Act, but making this policy abundantly clear is critical to provide comfort and certainty in the industry.
4. **Blue Planet supports using a portion of the demand side management surcharge for establishing and maintaining a post-installation inspection process.** Such an inspection would verify that the solar water heater was installed in accordance with the quality and performance standards established in §269-44.

Solar water heating is a foundation block in building Hawaii's clean energy future. A solar water system is the most basic renewable energy device to harness the clean energy from the sun. The technology is mature, tested, and works. Solar water heaters provide the greatest energy savings per dollar for reducing substantial residential energy demand. **Amending the Solar Roofs Act by removing the gas variance ensures that the vast majority of new homes come equipped with this clean energy device and helps to smooth the transition toward zero-energy homes of the future.**

Thank you for the opportunity to testify.

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TESTIMONY OF WARREN BOLLMEIER ON BEHALF OF THE HAWAII RENEWABLE ENERGY ALLIANCE BEFORE THE SENATE COMMITTEE ON ENERGY AND ENVIRONMENT

HB 1464 HD3, RELATING TO ENERGY RESOURCES

March 17, 2009

Chair Gabbard, Vice-Chair English and members of the Committee, I am Warren Bollmeier, testifying on behalf of the Hawaii Renewable Energy Alliance (HREA). HREA is a nonprofit corporation in Hawaii, established in 1995 by a group of individuals and organizations concerned about Hawaii's energy future. HREA's 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 HREA's 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 purpose of 1464 HD3 is to provide for and encourage renewable energy use and development, and energy efficiency

HREA supports the **intent** of this bill with comments on the following sections:

- (1) Section 3 (RPS). The last sentence of item "(3)" be deleted. Specifically, the phrase "customer-sited grid-connected photovoltaics is not referenced anywhere else in item "(3) and is confusing and not needed; and
- (2) Sections 3 (RPS) and 12 (EEPS). HREA notes that elements of the RPS are deleted in Section 3, and we believe the intent is to include these elements in the EEPS. However, this intent is not expressed in the language of the bill. Also in Section 12, there is no indication as to which entity the public utilities commission shall make responsible for the EEPS. HREA recommends this responsibility be given to the Public Benefits Fund Administrator.

Thank for this opportunity to testify.