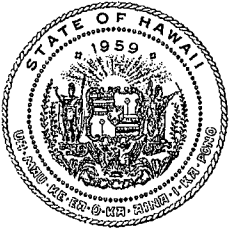


**SB 870**



**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 THE ENVIRONMENT**  
and  
**SENATE COMMITTEE ON COMMERCE AND CONSUMER PROTECTION**  
Thursday, February 5, 2009  
2:45 p.m.  
State Capitol, Conference Room 225

in consideration of  
**SB 870**  
**RELATING TO HAWAII'S CLEAN ENERGY INITIATIVE IN ELECTRIC  
GENERATION AND DELIVERY.**

Good afternoon, Chair Gabbard, Chair Baker, Vice Chair English, Vice Chair Ige, and  
Members of the Committees.

Senate Bill 870 establishes electric generation and delivery initiatives necessary for and  
contributing to the achievement of Hawaii Clean Energy Initiative's goal to transition Hawaii's  
energy sector to 70% renewable energy sources by 2030. The Department of Business,  
Economic Development, and Tourism (DBEDT) strongly supports this Administration 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.

On January 28, 2008, the signing of a Memorandum of Understanding between the State of Hawaii and the U.S. Department of Energy launched the Hawaii Clean Energy Initiative. The HCEI utilizes clean, renewable energy technologies, and will enable Hawaii to foster and demonstrate innovation, help build the workforce of the future, and serve as an integrated model and demonstration test bed for the U.S. and other island communities.

The significance of this bill towards achieving Hawaii's energy goals cannot be overstated. Currently, the Hawaii utilities use fossil fuel to generate over ninety per cent of the total electricity they sold, which represents approximately 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 in the future will have a useful lifetime of 30 to 50 years or more, which will perpetuate Hawaii's dependence on imported oil, compromising Hawaii's future energy security and sustainability as well as the attendant negative

impact on Hawaii's economy and environment. Furthermore, the price risks 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.

In particular, this bill lays out a number of important and achievable measures which codify elements of the Energy Agreement between the State and Hawaiian Electric (HECO) companies.

Firstly, this bill strengthens the Renewable Portfolio Standard (RPS) by amending Chapter 269, Hawaii Revised Statutes, from twenty per cent to twenty-five per cent of net electricity sales by December 31, 2020; and by adding requirements for ten per cent by 2010, fifteen per cent by 2015, and forty per cent by 2030. Further, the bill directs that starting in 2015 electrical energy savings and efficiency measures will not count towards the RPS. The bill also provides that no new fossil-based electric generation units greater than two megawatts will be approved by the Public Utilities Commission. These measures to enhance the RPS have already been agreed to in the Energy Agreement between the State and the HECO companies, and will significantly accelerate the mandated replacement rate of fossil-based electrical generation by renewable sources of generation, thereby enabling significant progress towards reducing Hawaii's current ninety per cent dependency upon petroleum-based products for electricity generation, and moving the State towards the goal of seventy per cent reliance upon renewable sources for generation.

A second major area which this bill addresses is net energy metering. This bill enhances the net energy metering provisions of Chapter 269, Hawaii Revised Statutes, by giving the Public Utilities Commission the authority to eliminate the caps and limits on the capacity size for customer-generators and to allow the utilities to assign eligible customer-generators to other applicable tariffs such as Feed-in Tariffs to promote the increased use and development of renewable energy systems and resources. These proposed amendments to the net energy metering statute are also included in the Energy Agreement between the State and HECO, and will serve to increase adoption and integration of customer-sited renewable energy systems and technology.

A third major area which this bill enhances for contributing to the goals of the Hawaii Clean Energy Initiative, 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, and which should receive assistance in accessing the use of special purpose revenue bonds for financing. We believe that the 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, are best served and incorporated in the Energy Resources Coordinator's statutory roles and functions as established in Section 196-4, Hawaii Revised Statutes.

The creation of renewable energy zones and construction of transmission projects and infrastructure are vital elements in the transformation of Hawaii's economy from one that is

heavily dependent on imported fossil fuel for over 90 per cent of its energy to one that is 70 percent powered by clean indigenous renewable energy.

The statutory functions and activities of the Energy Resources Coordinator already include preparing energy studies and analysis, including the collection, development and management of energy data. The Energy Resources Coordinator's relationships and partnerships with federal entities and national laboratories such as the US Department of Energy and the National Renewable Energy Laboratory will effectively enable the collection and analysis of data and information necessary in identifying geographic areas that are rich with renewable energy resource potential that may be designated as renewable energy zones. Likewise, these links will also enable the Energy Resource Coordinator to most effectively identify and qualify transmission projects and infrastructure crucial to the development of renewable energy resources, and to assist them with access to the use of special purpose revenue bonds for financing.

We believe that these are vitally important elements in Hawaii's energy transformation and that such functions are best served by the Energy Resources Coordinator and incorporated in the Energy Resources Coordinator's statutory functions specified in Section 196-4, Hawaii Revised Statutes.

Fourthly, this bill amends and expands the definition of "qualified business" in Section 209E-2, Hawaii Revised Statutes, to include enterprises engaged 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 alternative energy from

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 a good fit with the current approved business activities which presently includes wind energy production. The incentives provided for in the EZ program such as the construction GET exemption and various county benefits will provide the impetus to help attract these businesses to Hawaii. The need to move forward on alternative energy development is imperative to Hawaii's future energy security, and the addition of alternative energy activities into the EZ program will help to add further impetus to the progress we are pursuing.

The fifth major issue addressed by this bill is renewable energy permitting and facilitation. This bill amends Section 201N-1, Hawaii Revised Statutes, to enable renewable energy facilities between five and two hundred megawatts to apply to the Energy Resource Coordinator for approval to receive permitting process assistance from the renewable energy facilitator.

Also, this bill speeds and clarifies the expediting process for renewable energy facilities permitting by amending Section 201N-4, Hawaii Revised Statutes, such that the pertinent permitting agency must provide the Energy Resource Coordinator with the report identifying diligent measures by the agency to process and act upon the permit, within thirty days following the twelfth month after any permit which is part of an approved permit plan has not yet been approved or denied; and if no further processing and action are reported by the permitting agency within five months of the report, the permit shall be deemed approved.

This bill also enhances the definition in Section 201-12.5, Hawaii Revised Statutes, of which renewable energy projects are included in the duties of the renewable energy facilitator, by specifying the inclusion of renewable energy facilities' land parcels, production structure or equipment, energy transmission lines, and on-site infrastructure necessary for production of renewable energy.

Hawaii can achieve all of the objectives set by this bill, which will facilitate the development of a secure, renewable energy economy that keeps in Hawaii the billions of dollars annually being lost to fossil fuel sources overseas, and which will deliver strong growth of green, high-quality jobs, businesses, and income, technological innovation and advancement, and reduced greenhouse gas emissions for a cleaner environment, to our people. 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 offer these comments.



Testimony on

**S.B. NO. 870 –**  
**RELATING TO HAWAII'S CLEAN ENERGY INITIATIVE**  
**IN ELECTRIC GENERATION AND DELIVERY**

Before the

Senate Committee on Energy and Environment  
Thursday, February 5, 2009, 2:45 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).

In its testimony on S.B. 1173, HSWAC stated its objection to removing renewable energy electricity displacement technologies from the State's renewable energy portfolio standard.

S.B. 870 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 II of this bill as it is currently written.**

Part IV 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 V 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 VI and VII, 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.

Thank you for this opportunity to testify.

# TAXBILLSERVICE

126 Queen Street, Suite 304

TAX FOUNDATION OF HAWAII

Honolulu, Hawaii 96813 Tel. 536-4587

**SUBJECT:** MISCELLANEOUS, Renewable energy resources

**BILL NUMBER:** SB 870; HB 1052 (Identical)

**INTRODUCED BY:** SB by Hanabusa by request; HB by Say by request

**BRIEF SUMMARY:** 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 or 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; (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 and appropriations relating to Hawaii's clean energy initiative in electric generation and delivery.

**EFFECTIVE DATE:** Upon approval

**STAFF COMMENTS:** This is an administration measure submitted by the department of business, economic development and tourism BED-15(09). 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.

If it is the intent of the legislature to encourage new and existing businesses to expand their employment bases and increase their marketing territories, enterprise zones merely exacerbate what is already considered a poor climate in which to do business. Singling out specific areas of the state merely confers preferences for those businesses located within those geographic areas at the expense of all other taxpayers who are not so favored. It should be remembered that those taxpayers who live and work in the zone will demand the same public services as those who are not as fortunate to be located in the zone. Who then will pay for these services?

Concurrent efforts must be made to improve Hawaii's business climate to enhance the economic prospects for all businesses. Enterprise zones are merely an abdication of government's responsibility to create a nurturing and supportive business climate so that all businesses can thrive in Hawaii and provide the jobs the people of Hawaii need.

Digested 2/5/09

**SB 870  
RELATING TO HAWAII'S CLEAN ENERGY INITIATIVE IN ELECTRIC GENERATION  
AND DELIVERY**

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

**FEBRUARY 5, 2009**

Chair Gabbard, Chair Baker, and Members of the Senate Committees on Energy & Environmental Protection and 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 870, "A BILL FOR AN ACT RELATING TO HAWAII'S CLEAN ENERGY INITIATIVE IN ELECTRIC GENERATION AND DELIVERY." We support the general intent of this bill with amendments.

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 of our specialty Maui Brand Sugar.

In addition, HC&S generates biomass produced electricity for its sugar milling, irrigation pumping, and other internal operations and also provides electricity to Maui Electric Company (MECO). This biomass electricity is primarily produced by burning bagasse, the residual fiber of the sugar cane plant, as a fuel to generate steam for the production of power. In addition to providing approximately 7% of MECO's electricity, HC&S also serves as a firm power source to MECO, and has played a significant role in the restoration of MECO's electrical service during power outages.

We support the efforts of the Hawaii Clean Energy Initiative to accelerate the use and development of energy efficiency and renewable energy technologies to increase Hawaii's energy security. We agree that an overall transformation of Hawaii's energy system will enhance the prospects of Hawaii's energy independence and economic stability. While we also support the general intent of this bill, we would sincerely appreciate your consideration to incorporate the following amendments into this bill.

Section 3 of this bill includes a provision to prohibit the Public Utilities Commission (PUC) from approving applications to build new additional fossil based electric generation units with rated capacity greater than two megawatts. HC&S presently produces renewable energy primarily from sugar cane biomass, supplemented by fossil fuels, which is used to provide the energy needs for HC&S with the balance transmitted to MECO for their distribution and use. 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 fuels 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 power commitments, particularly during the off season maintenance period when bagasse is not available. We respectfully request that the following amendment be incorporated into provisions contained in Section 3 to exclude biomass electric generating units from this subsection:

- (4) The public utilities commission shall not approve applications to build new additional fossil-based electric generation units with rated capacity greater than 2 megawatts; provided that this section shall not apply to electric generation units in which the annual actual heat input from biomass fuels exceeds the annual actual heat input of fossil fuels.

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

**Senate Committee on Energy and Environment and  
Committee on Commerce and Consumer Protection**

**SB870                      RELATING TO HAWAII'S CLEAN ENERGY INITIATIVE  
IN ENERGY EFFICIENCY**

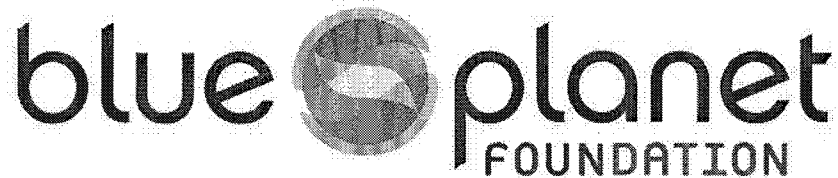
**Chairs Gabbard and Baker and Committee Members:**

Introduction: My name is Riley Saito Senior Manager, Hawaii Projects for the SunPower Systems Corporation. Thank you in advance for accepting these few comments on **SB870**.

SunPower Systems Corporation ("SunPower") has been a member of the Hawaii Energy Policy Forum since it convened in 2003 and a member of the Energy Generation working group for the HCEI over the past year. SunPower is in the business of designing, manufacturing, and delivering the highest efficiency solar electric technology worldwide. One of our latest projects was the 1.2 megawatt La Ola solar farm on Lanai with Castle & Cooke Hawaii.

SunPower supports the intent of this bill with the exception of Part III relating to Net Energy Metering. Sun Power does not believe that the proposed amendment to Section 269-101.5 Hawaii Revised Statutes is necessary. The proposed amendment would allow the Hawaii Public Utilities Commission to lower the maximum allowable capacity that eligible customer generators may have. Such a reduction would be contrary to the objectives of the Hawaii Clean Energy Initiative's Generation Working Group's deliberations. Moreover, it has been the HECO Companies position throughout HCEI working groups' deliberations that no modification is required to the Net Metering Law. .

Mahalo for the opportunity to submit testimony.



**SENATE COMMITTEE ON ENERGY AND ENVIRONMENT  
SENATE COMMITTEE ON COMMERCE AND CONSUMER PROTECTION**

February 5<sup>th</sup>, 2008, 2:45 P.M.  
Room 225

**(Testimony is 4 pages long)**

**TESTIMONY IN STRONG SUPPORT OF SB 870 WITH AMENDMENTS**

Chairs Gabbard and Baker and members of the committees:

The Blue Planet Foundation strongly supports SB 870, establishing electric generation and delivery initiatives necessary for and contributing to the transition of Hawaii's energy sector to 70 percent non-petroleum energy sources by 2030.

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<sup>1</sup>. In addition, over 805,000 tons of coal are imported into our state<sup>2</sup>. 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<sup>3</sup>. Hawaii's economic, environmental, and energy security demand that we reduce the amount of fossil fuel imported and consumed in Hawaii. To that end, new policies are critically needed that will dramatically increase energy efficiency, build our smart energy infrastructure with storage, and develop clean, renewable, and indigenous energy sources

Our testimony will address each part of the bill separately.

**Part 2. Renewable Portfolio Standards.**

Part 2 of SB 870 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 measure pending before these committees (SB 1173). We believe that this percentage is not only achievable, but required given the new realities of fossil fuel prices and global climate change.

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<sup>1</sup> The State of Hawaii Data Book, 2007

<sup>2</sup> *Ibid.*

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



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." Senate Bill 870 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 SB 870, Blue Planet believes Hawai'i can be much more aggressive at increasing clean energy use. We suggest that SB 870 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.

### **Part 3. Net Energy Metering**

Part 3 of SB 870 amends Hawaii's net metering law. After wisely being passed in 2001, net energy metering began slowly with a handful of renewable energy generators. As more homeowners learn about the program and its impacts on the payback period for renewable energy devices, the subscription rate has increased. In fact, we may be nearing a "tipping point" where many residential customers invest in renewable energy devices because of their relative cost and environmental advantages. Senate Bill 870 should pick up where prior legislation left off—eliminating the cap on the amount of net energy metering allowed on the grid.

The benefits of expanding net energy metering are numerous:

- Private individuals invest in the power plants of tomorrow—instead of ratepayers. Each new installed system can reduce the need to construct massive, expensive power plants, with all of their associated siting, environmental, and financial impacts. Private investors take on the risk of such investments, not ratepayers such as families and businesses.
- Diversified and decentralized power strengthens the power grid, providing more buffering from blackouts, oil price spikes, and accidents.
- Decentralized power reduces the need for infrastructure and powerlines.
- The allowable net energy systems in this program are clean and have less impact on Hawaii's environment than coal and oil-fired powerplants.
- Growth in the renewable energy industry in Hawai'i creates jobs and high-tech business opportunities—diversifying Hawaii's economy.
- A clean kilowatt from photovoltaic systems or other clean energy devices is worth much more for Hawai'i than a fossil fuel kilowatt. We should ensure that it is given at least as much value on the market.

#### **Parts 4 and 5. Energy Resources Coordinator and Renewable Energy Resources**

Part 4 of SB 870 clarifies and further defining duties and responsibilities of the state energy office. We view these parts of SB 870 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 parts 4 and 5 of SB 870 are supported as an interim step.

#### **Part 6. Renewable Energy Facilitator**

Part 6 of SB 870 expands the types of projects that the renewable energy facilitator is asked to address. We generally support the intent of this part.

## Part 7. Renewable Energy Permitting

Part 7 of SB 870 vastly expands the type of renewable energy projects that will go through the fast-track permitting process and allows for automatic approval of projects after a certain amount of time has passed. Blue Planet greatly appreciates efforts to facilitate clean energy projects and give them priority permit processing. We are concerned, however, with the automatic approval of any type of permit, as such an action could negatively impact Hawaii's environment, impinge on residents' due process rights, and create negative backlash against clean energy. We respectfully ask that this part of SB 870 be amended by simply removing any "automatic permit approval" triggers.

First, through analyzing the history of clean energy developments in Hawai'i, environmental disclosure and permitting hurdles are lower on the list than obstacles such as financing, land acquisition, and interconnection agreements with the electric utility. In fact, interconnection agreements seem to be the biggest roadblock. For example, consider the Maui windfarm at Kaheawa Pastures. At the public hearing on the conservation district use permit—the main environmental approval that was needed—33 individuals and organizations testified and all were in support. The interconnection agreement with Maui Electric, however, took years to negotiate, with much frustration on the part of the wind developer.

Second, our existing permitting process protects the environment and the public's right to provide input in the decision making. ***This usually makes for better siting and development decisions.*** Given that many of our indigenous energy resources will be harnessed in remote or ecologically sensitive areas, proper permitting and analysis are crucial. Again in the Kaheawa Pastures case, through the existing permitting process an agreement was reached to protect the Nene and other species. But expediting permitting of new renewable energy facilities—particularly those that are located in wild areas—may cause important resource protection measures to be overlooked. In fact, one of the environmental impacts caused by the Kaheawa Pastures wind farm related to grading the steep road up to the wind farm location. Yet this part of SB 870 allows for the automatic approval of permits for such projects—regardless of environmental impact.

Third, some of the "renewable energy facilities" contemplated in this section may be truly fossil fuel facilities in disguise. A recent proposal to produce biofuel by Kauai Ethanol LLC sought a covered source air permit to burn imported coal at the facility to convert molasses to ethanol.

Again, while we greatly appreciate the intent behind this part of SB 870—ostensibly to expedite the development of renewable energy sources in Hawai'i—we fear that faulty decision making may result if agencies and commissions are forced to respond to looming automatic approval deadlines at the expense of reduced public input and deliberation. It makes more sense to spend an extra month or two to get the permitting right than to spend five years in court.

Thank you for the opportunity to testify.

**Testimony before the  
Senate Committees on  
  
Energy and Environment  
and  
Commerce and Consumer Protection**

**S.B. 870 – Relating to Hawaii’s Clean Energy Initiative in Electric  
Generation and Delivery**

Thursday, February 5, 2009  
2:45 pm, Conference Room 225

By Arthur Seki  
Director of Technology  
Hawaiian Electric Company, Inc.

Chairs Gabbard and Baker, Vice Chairs English and Ige and members of the Committees:

My name is Arthur Seki—I am the Director of Technology at Hawaiian Electric Company. I am testifying on behalf of Hawaiian Electric Company (HECO) and its subsidiaries, Maui Electric Company (MECO) and Hawaii Electric Light Company (HELCO) hereinafter collectively referred to as HECO Utilities.

We support S.B. No. 870, to align Hawaii’s energy policy laws with the State’s clean energy goals.

We respectfully offer a few amendments to Part II of the bill on Renewable Portfolio Standards (“RPS”), where the bill proposes to modify the definition of “renewable electrical energy” under Hawaii Revised Statutes (“HRS”) § 269-91. Under the proposed change to section (2) of the definition, electrical energy savings would not count towards RPS starting on January 1, 2015. Those savings include “customer-sited, grid-connected renewable energy systems.” Without clarification, this language could mean that generation of renewable energy using photovoltaic systems would no longer count toward RPS from 2015. Therefore, we suggest that the language be clarified (**in bold**) as follows:

- (2) Electrical energy savings brought about by the use of renewable displacement or off-set technologies, including solar water heating, seawater air-conditioning district cooling systems, solar air-conditioning, and

customer-sited grid-connected renewable energy systems; provided that such electrical energy savings **brought about by the use of renewable displacement or off-set technologies, except those savings brought about by the use of customer-sited, grid-connected photovoltaic systems,** will not count towards the renewable energy portfolio standards beginning in 2015; or

In addition, we suggest the following clarifying language (**in bold**) to distinguish the reference to “electrical energy savings” in the new language in section (3) from its reference in section (2):

(3) Electrical energy savings brought about by the use of energy efficiency technologies, including heat pump water heating, ice storage, ratepayer-funded energy efficiency programs, and use of rejected heat from co-generation and combined heat and power systems, excluding fossil-fueled qualifying facilities that sell electricity to electric utility companies and central station power projects[-]; provided that, beginning in 2015, such electrical energy savings **brought about by the use of energy efficiency technologies** will not count towards the renewable energy portfolio standards beginning in 2015.

Furthermore, the proposed HRS § 269-92(b)(4) – which would prohibit the Public Utilities Commission from approving applications to build new additional fossil-based electric generation unit with rated capacity greater than two megawatts – should be clarified to allow for Commission review and approval of power purchase agreements that are negotiated between the electric utility and independent power producers certified as Qualified Facilities under the federal Public Utility Regulatory Policies Act of 1978 (aka PURPA), for the utility’s purchase of power from a QF using fossil-based generating units greater than two megawatts. For example, the new language may be preceded by the phrase, “Unless federal law requires otherwise.” Without this type of change, the proposed provision could be considered contrary to federal law. However, the HECO Utilities defer to the Public Utilities Commission on this provision.

As you are aware, the HECO Utilities are committed to increasing the amount of renewable energy from sustainable resources in order to reduce Hawaii's dependence on imported oil. There have been a number of renewable energy projects and initiatives related to renewable energy that we have undertaken:

- Integrated wind generated electricity from 3 new wind farms--Hawi (10 MW) and Pakini Nui (20 MW) at South Point on the Big Island and Kaheawa (30 MW) on Maui;
- Negotiating for new contracts related to wind on Maui and Oahu, solar and geothermal on the Big Island and ocean energy for Oahu;
- Short-listed renewable energy projects from the HECO 100 MW RFP for Oahu;
- Installing the 2009 power plant (100 MW) at Campbell Industrial Park to be 100% biofueled;
- Conducting wind integration study on Maui;
- Conducting wind and solar integration study for Big Wind from the neighbor island to Oahu;
- Planning for a 30-day test at Kahe 3 biofuel co-firing demonstration in a steam boiler generating unit for late 2009;
- Provided 2 years of seed funding to the Hawaii Agriculture Research Center ("HARC") and the agriculture departments at the University of Hawaii's Manoa and Hilo campuses to conduct biofuel crop research and a 3<sup>rd</sup> to follow this year; and
- Evaluating micro-algae for biofuels and ocean energy projects.

In conclusion, the HECO Utilities support S.B. No. 870 with the above amendments.

Passage of this bill would provide further guidance and strong support for our concerted efforts to have continued growth in the use of renewable energy throughout the State.

Thank you for the opportunity to testify.



## Hawaii Solar Energy Association

Serving Hawaii Since 1977

February 5, 2009

Room 211

Senate

Committee on Energy and Environment

&

Committee on Commerce and Consumer Protection

SB870

Mark Duda

President

9:30 A.M

### **Testimony in Support of the Intent with One Exception**

#### **Chairs Gabbard and Baker and Members of the Committees:**

*Hawaii Solar Energy Association (HSEA) is comprised of more than 30 installers, distributors, manufacturers and financiers of solar energy systems, both hot water and PV, most of which are Hawaii based, owned and operated. The organization's primary goals are: (1) to further solar energy and related arts, sciences and technologies with concern for the ecologic, social and economic fabric of the area; (2) to encourage the widespread utilization of solar equipment as a means of lowering the cost of energy to the American public, to help stabilize our economy, to develop independence from fossil fuel and thereby reduce carbon emissions that contribute to climate change; (3) to establish, foster and advance the usefulness of the members, and their various products and services related to the economic applications of the conversion of solar energy for various useful purposes; and (4) to cooperate in, and contribute toward, the enhancement of widespread understanding of the various applications of solar energy conversion in order to increase their usefulness to society.*

*HSEA members manufacture and install the majority of solar water heating systems, and install the majority of solar PV systems in the State of Hawaii. Our comments on this measure are based on this expertise, and our related experience in other renewable energy technologies.*

#### **HSEA makes the following comments regarding this measure:**

HSEA supports the intent of this bill with the exception of Part III Section 5 relating to Net Energy Metering. HSEA does not believe that the proposed amendment to Section 269-101.5 Hawaii Revised Statutes is necessary. The proposed amendment would allow the Hawaii Public Utilities Commission to reduce the amount of capacity available to customer-generators. This is problematic because net-metered solar systems in grew about five times in 2008. HSEA believes that this trend indicates that ratepayers need more access to net metering, not less. Such a reduction would be contrary to the public interest and to the objectives of the Hawaii Clean Energy Initiative.