

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

NEIL ABERCROMBIE  
GOVERNOR

RICHARD C. LIM  
DIRECTOR

MARY ALICE EVANS  
DEPUTY DIRECTOR

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

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

Statement of  
**Richard C. Lim**  
Director  
Department of Business, Economic Development, and Tourism  
before the

**House Committee on Energy and Environmental Protection**  
Thursday, January 26, 2012  
10 AM  
State Capitol, Conference Room 325  
in consideration of

**HB 1726**  
**Relating to Energy.**

Chair Coffman and Members of the House Committee on Energy and Environmental Protection.

The Department of Business, Economic Development, and Tourism (DBEDT) supports HB 1726, which extends the repeal date of the energy systems development special fund to 2015 to match that of the environmental response, energy, and food security tax.

The extension of this source of funding is viewed as a critical tool and important resource towards achieving the goals of the Hawaii Clean Energy Initiative.

Leveraging the resources of this fund with those of the energy security special fund through cooperative efforts by the University of Hawaii's - Hawaii Natural Energy Institute (HNEI) and DBEDT will further advance the progress already achieved. This relationship has produced results such as the "Oahu Wind Integration Study" and Japan-Hawaii smart-grid demonstration positioning Hawaii as a leading energy test-bed in the Pacific.

Thank you for the opportunity to offer these comments.

TESTIMONY OF HERMINA MORITA  
CHAIR, PUBLIC UTILITIES COMMISSION  
DEPARTMENT OF BUDGET AND FINANCE  
STATE OF HAWAII  
TO THE  
HOUSE COMMITTEE ON ENERGY & ENVIRONMENTAL PROTECTION  
JANUARY 26, 2012

**WRITTEN COMMENTS ONLY**

**MEASURE:** H.B. No. 1726

**TITLE:** Relating to Energy

Chair Coffman and Members of the Committee:

**DESCRIPTION:**

This measure proposes to extend the repeal date for the energy systems development special fund ("Special Fund") and to align it with the repeal date of the environmental response, energy, and food security tax in 2015.

**POSITION:**

The Commission supports this measure and would like to offer the following comments for the Committee's consideration.

**COMMENTS:**

The Hawaii Natural Energy Institute ("HNEI") is responsible for the critical task of administering the Special Fund in order to promote renewable energy research and technology validation in the State. The private-public partnerships developed by HNEI, especially in the research area of the validation and integration of clean energy technologies into Hawaii's existing electricity system, provides invaluable support to the Commission in its regulatory proceedings and other related work. The role of and adequate funding of HNEI is essential to the State's objective to achieve the maximum penetration of variable generation while maintaining the strength and resiliency of Hawaii's electricity system.

Thank you for the opportunity to testify on this measure.



# UNIVERSITY OF HAWAII SYSTEM

## Legislative Testimony

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Written Testimony Presented Before the  
House Committee on Energy & Environmental Protection  
Thursday, January 26, 2012

by

Virginia S. Hinshaw, Chancellor

and

Richard Rocheleau, Director

Hawai'i Natural Energy Institute

School of Ocean and Earth Science and Technology

University of Hawai'i at Mānoa

### HB 1726 – RELATING TO ENERGY

Chair Coffman, Vice-Chair Kawakami, and members of the committee:

My name is Richard Rocheleau, Director of the Hawai'i Natural Energy Institute at the University of Hawai'i at Mānoa. I support HB 1726 which proposes to amend the repeal date of the Energy Systems Development Special Fund to 2015 to match that of the environmental response, energy, and food security tax.

Section 304A-1891 passed by the Hawai'i State Legislature in 2007 established the Hawai'i Natural Energy Institute (HNEI) in statute, defined duties of the institute and required an annual report to the legislature on its activities, expenditures, and coordination with State agencies and programs. Section 304A-1891 also established the Energy Systems Development Special Fund and directed that it be managed by HNEI, but no funding was provided. In 2010, ACT 73 established a barrel tax and authorized that 10 cents of the tax on each barrel be deposited into the Energy Systems Development Special Fund. However, the authorization to access those funds was included in the Budget Worksheets under Program ID #BED120, under the Department of Business, Economic Development and Tourism (DBEDT) delaying UH/HNEI access to those funds until June 2011.

Since that time, HNEI, working in close collaboration with DBEDT has identified a number of energy projects with significant potential to help reduce the use of fossil fuels in Hawai'i. A complete description of our current spend plan has been provided in our most recent Annual Report to the Legislature (November 2011). We continue work with energy stakeholders in the state including DBEDT to identify critical needs. Projects described in our annual report include support for the programmatic environmental impact statement (PEIS) to ensure continued progress to evaluate environmental issues associated with island interconnection via undersea cable. This important effort was stalled due to lack of funding. HNEI, in collaboration with DBEDT, has reengaged the

US Department of Energy (US DOE) to fund the next critical step of this process. We anticipate that this effort will be restarted within the month. In another example, the University of Hawai'i recently received a million dollar award from US DOE to develop and validate a sophisticated electronic measurement technique which results in a more accurate assessment of the geothermal energy resource. This technology will reduce the risk associated with exploratory drilling, an expensive but necessary step in development of geothermal energy. By using the barrel tax funding to match funding from US DOE, UH can purchase the sensitive electronic equipment and train local personnel so that this valuable technique is available for use beyond the limited period supported by the DOE funding. With the additional barrel tax funding, we anticipate expanding the resource assessment to sites on Maui and O'ahu. In one final example, HNEI and its partners have received a \$6 million award from US DOE to develop and demonstrate smart grid inverters, which are expected to enable greater penetration of photovoltaic (PV) systems on utility distribution lines. Unfortunately, the DOE did not provide sufficient funding in year one for the full technology development effort and put this project at risk. HNEI used a modest amount from the energy fund to restore the budget and allow this valuable, high-visibility project to move forward.

In summary, I strongly support amending the repeal date of the Energy Systems Development Special Fund to 2015 to match that of the environmental response, energy, and food security tax. Projects funded by this program are advancing new efficient and economic energy technologies and will help ensure that Hawai'i continues to move forward to meet its clean energy goals.



**HOUSE COMMITTEE ON ENERGY & ENVIRONMENTAL PROTECTION**

January 26, 2012, 10:00 A.M.

Room 325

**(Testimony is 11 pages long)**

**TESTIMONY IN SUPPORT OF HB 1726, SUGGESTED AMENDMENTS**

Chair Coffman and members of the Committee:

The Blue Planet Foundation supports HB 1726, a measure aligning the repeal date for the energy systems development special fund with that of the environmental response, energy, and food security tax. To truly accomplish the original intent behind Act 73, 2010, and to accelerate Hawaii's transition to energy independence, we believe that this measure should be amended to accomplish the following:

- Remove the sunset date of the environmental response, energy, and food security tax;
- Increase the environmental response, energy, and food security tax from \$1.05 per barrel to \$2.00 per barrel;
- Establish a tax on each ton of coal imported into Hawaii that is approximately equivalent to the barrel tax in terms of carbon emissions;
- Increase the allocations of the environmental response, energy, and food security tax to the energy security special fund, the environmental response revolving fund, the energy systems development special fund, and the agricultural development and food security special fund;
- Transition the Hawaii Economic Development Task Force to the Hawaii Food and Energy Security Council, which will remain in existence through June 30, 2014; and
- Increase the spending caps for the State Energy Office and the Department of Agriculture to make use of the barrel tax funds.

Proposed amendments to accomplish the foregoing are attached to this testimony.

Hawaii's barrel tax law is keystone clean energy policy that provides for dedicated investment in clean energy, funding the critical planning, development, and implementation of clean energy programs that will foster energy security for Hawaii. Blue Planet believes the best way to

**Jeff Mikulina, executive director • [jeff@blueplanetfoundation.org](mailto:jeff@blueplanetfoundation.org)**

55 Merchant Street 17<sup>th</sup> Floor • Honolulu, Hawaii 96813 • 808-954-6142 • [blueplanetfoundation.org](http://blueplanetfoundation.org)

provide investment funds is by tapping the source of our problem—imported fossil fuel. We have also found, through three separate surveys commissioned by Blue Planet, that Hawaii residents strongly support this taxing policy.

### *Rationale for expanding the Barrel Tax Policy in 2012*

If we truly want to rapidly transition Hawaii to a clean, sustainable energy future, we have to be prepared to invest in that preferred future today. The price of oil well exceeds \$100 per barrel in 2012, and recent unrest in the Middle East and unease toward nuclear energy after the Japan crisis will keep oil prices high. We must act aggressively now.

According to three separate surveys commissioned by Blue Planet, over two-thirds of Hawaii residents support paying an additional amount on their energy bills (with the mean equivalent to a \$5 per barrel tax) if the revenue was dedicated to Hawaii's clean energy future. We also strongly support expanding this measure to include a tax on coal imports into Hawaii.

Blue Planet Foundation proposes that HB 1726 be amended by increasing the oil tax to \$2 per barrel (yielding approximately \$48 million annually). The majority of these revenues should be directed to clean energy planning, development, integration, incentives, and other activities facilitating Hawaii's energy transformation.

Hawaii is the most dependent state in the nation on imported oil. Over 40 million barrels are imported annually, nearly 90% of which originate from foreign sources<sup>1</sup>. In addition, **more than 930,000 tons of coal** are imported into our state<sup>2</sup>. These sources supply power for over 95% of Hawaii's overall energy needs. The combustion of these resources also contributes more than 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 imported fossil fuel that the state consumers. To that end, new policies and sources of funding are critically needed that will dramatically increase energy efficiency, build our smart energy infrastructure with storage, and develop clean, renewable, and indigenous energy sources.

A \$2 per barrel tax on oil would provide needed funding for clean energy and efficiency research, planning, implementation to transition to our preferred clean energy future. As we dramatically expand our clean energy capacity in Hawaii, the real economic benefits of this carbon surcharge will far outweigh the additional burden it may present.

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<sup>1</sup> The State of Hawaii Data Book, 2010

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

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

### ***The fossil fuel tax should include coal imports***

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Blue Planet strongly supports expanding the barrel tax to include other carbon fuel imports such as coal. The purpose of such an expansion is to ensure consistent taxing policy across Hawaii's fossil fuel imports (not perversely incentivizing one over the other) and to increase revenue for clean energy and food security programs. Hawaii imports approximately 1.8 billion pounds of coal (930,000 tons) annually for electricity production. Most of this coal is of the subbituminous variety and is imported from Indonesia.

Coal is among the dirtiest of fossil fuels, with the highest carbon intensity. Mining, shipping, toxic emission, and climate change impacts increase the actual price of coal well beyond its "market price"—a recent Harvard Medical School study<sup>4</sup> estimates that those additional costs exceed the real cost by three- or four-fold (added cost of up to \$0.27 per kilowatt-hour produced). Just two years ago a bulk carrier hauling coal grounded itself on the reef entering Barbers Point Harbor<sup>5</sup>. Coal has significant environmental impacts.

One short ton of coal has approximately four to six times the energy and carbon density as one barrel of oil<sup>6</sup>. Blue Planet therefore believes that a carbon tax of \$10 per ton of coal imported to Hawaii is equivalent to a \$2 per barrel tax proposed in our amendments here. At current Hawaii coal importation rates (approximately 930,000 short tons annually), simply expanding the barrel tax to coal would yield over \$9 million annually for clean energy and food security programs.

### ***Carbon Tax is Smart Tax Policy***

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A fossil fuel fee (or "carbon tax") is smart tax-shifting policy that discourages fossil fuel use while providing a source of revenue for clean energy planning and implementation. The concept behind the measure is to help "internalize" the external costs of certain activities; in this case, charge a fee for products that are damaging to the environment and use that money to help mitigate the damage. The link is quite clear between the use of petroleum products and corresponding impacts on our fragile island environments—not only in oil spills, which was the original impetus for the environmental response tax, but also in runoff from the roads our cars drive on, in degraded air quality, and in greenhouse gas emissions and climate change.

Unlike many other taxes, the barrel tax is largely avoidable by most residents. Energy efficiency, conservation, and switching to clean sources of power all reduce the burden of the tax. In fact,

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<sup>4</sup> [chge.med.harvard.edu/programs/ccf/documents/MiningCoalMountingCosts.pdf](http://chge.med.harvard.edu/programs/ccf/documents/MiningCoalMountingCosts.pdf)

<sup>5</sup> <http://www.hawaiinewsnow.com/global/story.asp?s=11941472>

<sup>6</sup> [www.epa.gov/greenpower/pubs/calcmeth.htm](http://www.epa.gov/greenpower/pubs/calcmeth.htm)

most residents could reduce the amount of barrel tax they pay by installing some compact fluorescent light bulbs at home and ensuring that car tires are properly inflated.

A “clean energy” surcharge on a barrel of oil of \$2 is approximately the same as a carbon tax of \$4.00 per ton of carbon dioxide (CO<sub>2</sub>)<sup>7</sup>. It would have a marginal impact on petroleum users, yet significantly increase the state’s ability to deliver energy efficiency investments and clean energy project funding. A \$4.00 “carbon tax” is lower than many carbon taxes currently in place. Many European countries have carbon taxes that exceed \$10.00 per ton. In 2008, the Canadian province of British Columbia enacted a carbon fee that started at approximately \$8.00 per ton (English) in July, 2008, and increases to \$24 per ton by 2012. That tax has raised nearly \$1 billion dollars<sup>8</sup>. In 2011, Australia passed a carbon tax of \$23.50 per ton (increasing 2.5% annually until 2015) on the 500 largest carbon dioxide polluters nationwide<sup>9</sup>.

### ***Public Support***

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Blue Planet Foundation conducted market research in December 2009, March 2010, and December 2010 to discern the level of public support for a barrel tax for clean energy investment. The statewide survey of residents found broad support for a barrel tax with roughly 70% supporting a tax of some amount. Each survey had a random sample of 500 residents statewide, providing a margin of error of 4.4% at a 95% confidence level.

The average level of support was equivalent to a \$5 per barrel tax. Forty-five percent of residents supported paying an additional \$15 on their monthly energy bills, equivalent to a \$9 per barrel tax. These findings should provide comfort to decision makers wrestling with how to develop funding for Hawaii’s clean energy future—Hawaii’s residents are willing to pay to wean Hawai’i from its oil dependence. *Please see chart at end of testimony.*

While it’s clear that we need to aggressively increase our energy efficiency and clean energy use in Hawai’i to decrease our reliance on imported crude, we cannot do it without adequate funding for development and implementation. We believe with appropriate amendments to HB 1726, Hawaii can wisely tap the source of its problem—imported fossil fuel—to fund a food- and energy-secure future.

Thank you for the opportunity to testify.

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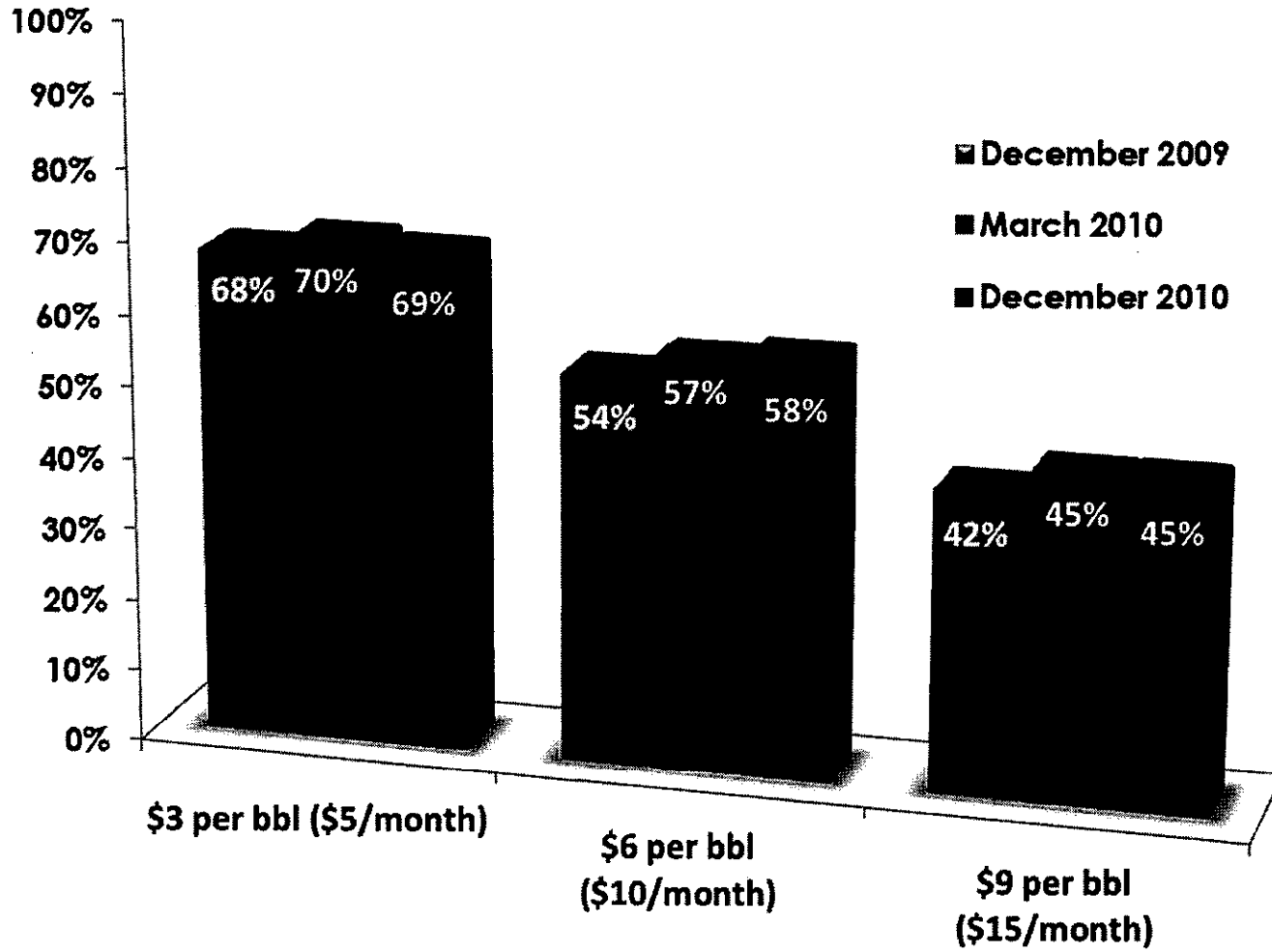
<sup>7</sup> At 23 lbs CO<sub>2</sub> produced per gallon oil and 42 gallons per barrel.

<sup>8</sup> <http://www.fin.gov.bc.ca/tbs/tp/climate/A6.htm>

<sup>9</sup> Wall Street Journal, “Australia’s Carbon Tax Clears Final Hurdle,” November 8, 2011.



# Resident Support for Barrel Tax



**PROPOSED AMENDMENTS TO HB 1726**

SECTION 2. Section 243-3.5, Hawaii Revised Statutes, is amended by amending subsection (a) to read as follows:

"(a) In addition to any other taxes provided by law, subject to the exemptions set forth in section 243-7, there is hereby imposed as state environmental response, energy, and food security tax on each barrel or fractional part of a barrel of petroleum product sold by a distributor to any retail dealer or end user of petroleum product, other than a refiner. The tax shall be \$~~[1.05]~~2.00 on each barrel or fractional part of a barrel of petroleum product that is not aviation fuel; provided that of the tax collected pursuant to this subsection:

(1) ~~[5]~~10 cents of the tax on each barrel shall be deposited into the environmental response revolving fund established under section 128D-2;

(2) ~~[45]~~100 cents of the tax on each barrel shall be deposited into the energy security special fund established under section 201-12.8;

(3) ~~[10]~~25 cents of the tax on each barrel shall be deposited into the energy systems development special fund established under section 304A-2169; and

(4) ~~[15]~~65 cents of the tax on each barrel shall be deposited into the agricultural development and food security special fund established under section 141-10.

The tax imposed by this subsection shall be paid by the distributor of the petroleum product."

SECTION 3. (a) There is established the Hawaii Food and Energy Security Council within the department of business, economic development, and tourism for administrative purposes. The purpose of the Hawaii Food and Energy Security Council shall be to facilitate the accelerated adoption and completion of renewable energy projects, energy efficiency programs, agricultural infrastructure and development, and other measures to meet the purposes of this Act. The Hawaii Food and Energy Security Council shall develop and maintain a broad overview of energy and food security issues that apply an interdisciplinary approach to ensure that Hawaii's energy and food policy and program development is integrated within the overall economic, social, environmental, and cultural aspects of society. The Hawaii Food and Energy Security Council, with the assistance of the department of business, economic development, and tourism shall:

- (1) Identify all federal and private funds available to the State and counties to address energy and food security issues;
- (3) Identify effective measures for interagency cooperation, coordinate efforts with the counties, and bolster public and private sector partnerships to achieve the objective of energy and food security;
- (4) Identify existing programs and agreements addressing energy and food security that may be enhanced through legislation;

- (5) Investigate alternative institutional mechanisms to promote the efficient execution and implementation of a multi-year strategy to achieve energy and food security;
- (6) Investigate the streamlining of administrative processes to accelerate and achieve energy and food security;
- (7) Provide an appropriate forum for all affected or interested parties to address energy and food security issues;
- (8) Recommend appropriate legislation resulting from its findings to improve, accelerate, and achieve the objective of energy and food security;
- (9) Review whether:
  - (A) The apportionment of the environmental response, energy, and food security tax among the funds listed under section 243-3.5, Hawaii Revised Statutes, is appropriate;
  - (B) The apportionment should be changed; and
  - (C) Any additional special, trust, or revolving fund should receive a share of the tax; and
- (10) Perform any other function necessary to effectuate the purposes of this part.

(b) The Hawaii Food and Energy Security Council shall consist of the members appointed to the Hawaii economic development task force pursuant to Act 73, Special Session Laws of Hawaii 2010, section 6.

(c) The Hawaii Food and Energy Security Council's members shall serve without compensation but shall be reimbursed for expenses,

including travel expenses, necessary for the performance of their duties.

(d) In the performance of its duties, the Hawaii Food and Energy Security Council shall consult with appropriate private, nonprofit, community, and government stakeholders.

(e) The department of business, economic development, and tourism may contract with the University of Hawaii for any services to support the work of the Hawaii Food and Energy Security Council.

(f) The Hawaii Food and Energy Security Council shall submit a report to the legislature no later than twenty days prior to the convening of the regular sessions of 2013 and 2014.

The report shall include a description of the activities funded by the environmental response, energy, and food security tax, progress made toward energy and food self-sufficiency, findings and recommendations, including any proposed legislation, and additional action necessary to achieve energy and food self-sufficiency.

(g) The Hawaii Food and Energy Security Council shall cease to exist on June 30, 2014.

SECTION 4. Act 73, Special Session Laws of Hawaii 2010, section 14, is amended as follows

~~"[This Act shall take effect on July 1, 2010; provided that sections 2, 3, 4, and 7 of this Act shall be repealed on June 30, 2015, and sections 128D-2, 201-12.8, and 243-3.5, Hawaii Revised Statutes, shall be reenacted in the form in which they read on June 30, 2010.]"~~

SECTION 5. There is appropriated out of the energy security special fund the sum of \$10,000,000 or so much thereof as may be necessary for fiscal year 2012-2013 for the purposes of the energy security special fund.

The sum appropriated shall be expended by the department of business, economic development, and tourism for the purposes of this Act.

SECTION 6. There is appropriated out of the agricultural development and food security special fund the sum of \$8,000,000 or so much thereof as may be necessary for fiscal year 2012-2013 for the purposes of the agricultural development and food security special fund.

The sum appropriated shall be expended by the department of agriculture for the purposes of this Act.

SENT VIA EMAIL

January 25, 2012

Representative Denny Coffman  
Chair, Committee on Energy and Environmental Protection  
Representative Derek S. K. Kawakami  
Vice Chair, Committee on Energy and Environmental Protection  
Hearing on House Bill 1726 - Relating to Energy  
State Capitol, Conference Room 325



Aloha Chair Coffman and Vice Chair Kawakami!

I am writing to express my support for House Bill 1726 with amendments. As a lead economic development organization in the State of Hawai'i, Enterprise Honolulu is actively engaged in activities to revitalize our Agriculture industry (towards food security) and continue to move our state towards the objectives of Energy Self reliance and the Hawai'i Clean Energy Initiative.

Enterprise Honolulu assisted in drafting Act 73, the voice of the community which was polled was overwhelmingly weighted towards the request to use the monies being taken for the intent so that Hawai'i will realize a shift from our current dependency of imported food and fuel.

The task is large and requires a consistent and endured commitment of financial resources.

I ask for your consideration to support HB 1726 with the additional amendments as set forth:

- 45 cents of the tax on each barrel shall be deposited into the energy security special fund.
- 45 cents of the tax on each barrel shall be deposited into the agricultural development and food security special fund.
- There is appropriated out of the energy security special fund the sum of \$8,000,000 or so much thereof as may be necessary for fiscal year 2012-2013 for the department of business, economic development, and tourism.
- There is appropriated out of the agricultural development and food security special fund the sum of \$8,000,000 or so much thereof as may be necessary for fiscal year 2012-2013 for the department of agriculture.
- There is established the Hawaii Food and Energy Security Council within the department of business, economic development, and tourism for administrative purposes. The purpose of the Hawaii Food and Energy Security Council shall be to facilitate the accelerated adoption and completion of renewable energy projects, energy efficiency programs, agricultural infrastructure and development, and other measures to meet the purposes of this Act.

Please feel free to contact me directly should you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "Pono Shim".

Pono Shim  
President & CEO  
Enterprise Honolulu, Oahu Economic Development Board



**ENTERPRISE**  
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735 Bishop Street, Suite 412, Honolulu, Hawaii 96813 • 808-521-3611  
Fax: 808-536-2281 • [www.enterprisehonolulu.com](http://www.enterprisehonolulu.com)