



UNIVERSITY OF HAWAII SYSTEM

Legislative Testimony

Written Testimony Presented Before the
Senate Committee on Energy and Environment
Thursday, March 15, 2012 at 3:00 pm
Conference Room 225

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, HD1 – RELATING TO ENERGY

Chair Gabbard, Vice-Chair English, 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 HD1 which proposes to amend the repeal date of the Energy Systems Development Special Fund 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, established the Energy Systems Development Special Fund, and directed that it be managed by HNEI; but no funding was provided. ACT 73 passed in 2010 established a barrel tax and authorized that 10 cents of the tax on each barrel be deposited into the Energy Systems Development Special Fund. Due to difficulties with budget authorization, UH/HNEI was not able to access those funds until June 2011. Amending the repeal date will allow critical projects supporting the Hawai'i Clean Energy Initiative (HCEI) goals to continue, consistent with the intent of ACT 73.

Since June 2011, HNEI has worked in close collaboration with DBEDT and other stakeholders to identify and initiate projects with significant potential to reduce the use of fossil fuels in Hawai'i. A description of our current spend plan has been provided in our most recent Annual Report to the Legislature (November 2011).

In addition to their potential to reduce fossil fuel use, the projects selected to date also leverage federal investment, remove roadblocks in programs critical for the success of HCEI, and contribute to programs likely to spur economic development.

Activities funded or in final negotiation using the first year of funds include:

- a) Support for the Programmatic Environmental Impact Statement (PEIS) to evaluate wide-ranging environmental issues associated with island interconnection via undersea cable. Without this financial support from the barrel tax, this critically important effort was stalled and continued delay of the project was likely. Hawaii support for this PEIS incentivized the U.S. Department of Energy to reengage including providing funds for the project. HNEI/UH is currently working with DBEDT and USDOE to develop a detailed scope of work so that work can restart immediately.
- b). In another example, the University of Hawai'i recently received a \$1 million award from US DOE to develop and validate a sophisticated electronic measurement technique which will allow more accurate assessment of the geothermal energy resource, reducing the risk associated with expensive exploratory drilling. Unfortunately, the DOE funding only provided for lease of the equipment and restricted its use to limited sites on the Big Island. As a result of investment from the Energy Systems Development Special Fund (Energy Fund), UH will own this equipment and the resource assessment work will be extended to potential geothermal sites on Maui and O'ahu. This modest investment from the Energy Fund is greatly increasing the likelihood of successful development of geothermal energy, which would reduce fossil fuel use and contribute to workforce development.
- c) In one final example, HNEI and its partners received a \$6 million award from US DOE to develop and demonstrate smart grid inverters that will enable greater penetration of photovoltaic (PV) systems on utility distribution lines, a major barrier to high usage of PV. Unfortunately, the USDOE did not provide sufficient funding in the first year of the project for the full technology development effort putting 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.

Approximately 85% of the funds from the first year have been encumbered for the three projects described above. New projects that will continue to move us toward the HCEI goals including Grid Integration Studies, Energy Efficiency, Smart Grid Demonstrations, and support for geothermal development and biofuels, are being identified and evaluated for future funding.

The projects funded by the Energy Systems Development Special Fund 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. I strongly support amending the repeal date of the Energy Systems Development Special Fund to match that of the environmental response, energy, and food security tax. However, it is also important to note that we can only continue the progress if the fund is used for the purposes so clearly identified in ACT 73. I ask that this be considered as other pending legislation is considered.