



UNIVERSITY OF HAWAII SYSTEM

Legislative Testimony

Testimony Presented Before the
Senate Committees on Energy and the Environment, Agriculture, and
Economic Development, Government Operations and Housing
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by
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SB 1088 – RELATING TO SUSTAINABILITY

Chairs Gabbard, Nishihara, and Dela Cruz and Members of the Committees:

My name is Richard Rocheleau, Director of the Hawai'i Natural Energy Institute at the University of Hawai'i at Mānoa. The University of Hawai'i supports SB 1088, which reallocates the portion of the Environmental Response, Energy, and Food Security Tax (Barrel Tax) that currently goes into the general fund to the environmental response revolving fund (Dept. of Health), the energy security special fund (DBEDT), and the agricultural development and food security special fund (Dept. of Ag). The barrel tax was intended to support critical investments in clean energy, local agricultural production, and environmental response, reduce the State's dependence on imported fossil fuels and food products, and support agricultural activities and programs. Reallocating the revenues from the tax to serve its original intent will help Hawai'i achieve both food and energy security and sustainability.

We also support the repeal of the sunset dates of the barrel tax itself and the energy systems development special fund (ESDSF). More specifically, we ask for your support in repealing the sunset date on the ESDSF. If no change is made, that Fund will sunset in less than five months. While the ESDSF is not the largest source of funding for HNEI activities, it plays a crucial role in leveraging federal investment, removing roadblocks in programs critical for the success of HCEI, and contributing to programs likely to spur economic development.

The ESDSF was established under Act 253 and directed that it be managed by HNEI; but initially, no funding was provided. In 2010, ACT 73 established the barrel tax and authorized that 10 cents of the tax on each barrel be deposited into the ESDSF but access to the funds was delayed an additional 12 months due to administrative errors.

Since receiving access to the funds in June 2011, HNEI has worked in close collaboration with DBEDT and other stakeholders to identify and initiate projects with significant near term 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 2012).

Activities funded or in process for funding by ESDSF money include:

- **A Wave Energy Test Site (WETS).** A \$500,000 cost-share from the fund leveraged over \$3.5 million in additional funding from USDOE to support Navy's \$11 million investment to develop a wave energy test site in Kane'ohe Bay. When completed this will be the only grid-connected wave energy test site in the United States; providing developers a site where they can test their technology for proof of seaworthiness, functionality, system integrity, and technology viability; and providing significant economic benefit to many Hawai'i small businesses who will be called upon to participate.
- **Smart Inverter Deployment.** Under this project, a \$400,000 cost share from the fund leveraged a \$1.5 million award from USDOE with an additional \$4.5 million from USDOE upon successful demonstration of the go/no-go deliverables later this year. This project will develop and demonstrate smart grid-enabled PV inverters which have the potential to significantly reduce the impacts of high penetrations of PV, allowing additional installations without negatively impacting utility operation.
- ***Hawai'i Clean Energy Programmatic Environmental Impact Statement:*** In July 2012, in coordination with DBEDT, HNEI contracted New West Technologies to conduct a Programmatic Environmental Impact Study for alternative scenarios for deployment of undersea electrical cables for interconnection of O'ahu, Maui, and Hawai'i Counties electrical grids. The PEIS is analyzing, at a programmatic level, the potential environmental impacts of a broad range of clean energy activities and technologies required for completion of this effort. This PEIS is intended to provide federal and local agencies, and policymakers with information and guidance they can use to make decisions about actions to support achieving HCEI goals. (\$1,000,000)
- ***Sea Water Air Conditioning Monitoring:*** Seawater air conditioning has the potential to contribute significantly to the state's energy efficiency goals but potential environmental impacts of plume discharges have not been well characterized. This uncertainty can increase project costs, negating possible benefits of this technology. Under this program, \$200,000 from the fund is expected to leverage over \$500,000 of federal funds to conduct studies to reduce this uncertainty. A portion of this funding will be used to establish very sensitive monitoring to insure that environmental impacts are minimal.

These and other HNEI current and planned projects in the areas of renewable technologies, grid integration, smart grid, energy efficiency and support for geothermal development and biofuels will help move Hawai'i toward a more secure and sustainable future.

Thank you.