



UNIVERSITY OF HAWAII SYSTEM

Legislative Testimony

Written Comments for the
Senate Committee on Ways and Means
Friday, February 22, 2013 at 9:00 am

by

Richard Rocheleau, Director
Hawai'i Natural Energy Institute
School of Ocean and Earth Science and Technology
University of Hawai'i at Mānoa

SB 17 SD1 – RELATING TO FOSSIL FUELS

Chair Ige, Vice Chair Kidani, 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. We support SB 17 SD1, 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) as intended in the original legislation. The bill also amends the definition of fuels on which the barrel tax is levied to include gaseous, liquid, and solid fossil fuels.

The Barrel Tax was intended to support critical investments in clean energy, local agricultural production, and environmental response to reduce the State's dependence on imported fossil fuels and food products. In enacting the barrel tax legislation, the legislature found that: "undertaking the important task of energy and food security requires a long-term commitment and the investment of substantial financial resources." The efforts needed to reduce our dependence on fossil fuels are complex. Capital investments today will dictate the shape of our energy system for decades to come. This reallocation back to the original intent of the Barrel Tax will help ensure that the best possible path forward is identified, and help ensure the long term commitment necessary to help Hawai'i attain food and energy security and sustainability.

Section 4 of the bill would repeal the sunset date on the agricultural development and food security special fund and portions of the energy security special fund administered by DOA and DBEDT, respectively. Similarly, Section 3 of the bill would repeal the sunset date on the energy systems development special fund (ESDSF), which is administered by HNEI. **Whether or not these sunsets are repealed, we are asking that the sunset for the ESDSF be changed to be consistent with the other funds supported by the Barrel Tax, and the Barrel Tax itself.**

The ESDSF was established in 2007 by Act 253, three years before the current Barrel Tax was established by Act 73. Both Act 253 and Act 73 were enacted with provisions to sunset portions of them in five years. Last year the Legislature extended the sunset on the ESDSF for one year, until June 30, 2013 (Act 151). Thus, if no change is made, the ESDSF will sunset in less than five months. Since a portion of the Barrel Tax is deposited into the ESDSF, HNEI believes it is best to make the two laws consistent by either aligning the sunsets or repealing them altogether.

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.

Despite being established in 2007, no funding was provided to the ESDSF until 2010, when Act 73 directed 10 cents of the tax on each barrel of imported petroleum product go into the fund. 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 Kaneohe 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.

HNEI also supports amending the law to define the taxed product as liquid, gaseous, or solid fossil fuels to ensure the intent of the law is not averted and the revenue stream it provides will not be diminished should liquefied natural gas or other fossil fuel products not covered by the current law be imported to the state and displace a portion of our use of petroleum products.

Thank you.