



COLLEGE OF SOCIAL SCIENCES

HAWAII ENERGY POLICY FORUM

UNIVERSITY OF HAWAII AT MĀNOA

Hawai'i Energy Policy Forum

Mr. Robbie Alm, HECO
Ms. Amy Asselbaye, Ofc of US Rep.
Neil Abercrombie
Ms. Catherine Awakuni, Div. of
Consumer Advocacy
Mr. Warren Bollmeier
Hi Renewable Energy Alliance
Mr. Carlito Caliboso, PUC (Observer)
Mr. Albert Chee, Chevron
Mr. Kyle Datta, U.S. Biofuels
Sen. Kalani English, HI State Senate
Mr. Mitch Ewan, UH HNEI
Mr. Carl Freedman
Haiku Design and Analysis
Mr. Mark Glick, OHA
Mr. Steve Golden, The Gas Company
Dr. Michael Hamnett, RCUH
Ms. Paula Helfrich, EDAAH
Mr. William Kaneko, HI Institute for
Public Affairs
Mr. Maurice Kaya, DBEDT
Mr. Darren Kimura, Energy Industries
Holdings
Mr. Mike Kitamura, Ofc of US Sen.
Daniel K. Akaka
Mr. Kal Kobayashi, Maui County
Mr. Laurence Lau, DOH
Ms. Yvonne Lau, Ofc of US Rep.
Mazie Hirono
Mr. Allyn Lee, C&C of HNL
Mr. Aaron Leong, Ofc of US Senator
Daniel K. Inouye
Dr. Stephen Meder, AIA-Honolulu
Sen. Ron Menor, HI State Senate
Mr. Jeff Mikulina, Sierra Club
Dr. Bruce Miller, UH Ofc of
Sustainability
Dr. Sharon Miyashiro, Social
Sciences Public Policy Ctr.
Rep. Hermina Morita, HI State
House of Representatives
Mr. Tim O'Connell, USDA/Rural
Development
Mr. Richard Paglinawan
Pa Ku'i A Lua
Ms. Melissa Pavlicek, Western States
Petroleum Assn
Mr. Randy Perreira, HI State AFL-CIO
Mr. Rick Reed, Inter-Island
Solar Supply
Dr. Rick Rocheleau, UH HNEI
Mr. Peter Rosegg, HECO
Mr. Steven Rymsha, KIUC
Mr. Riley Saito, PowerLight Corp.
Mr. Glenn Sato, Kauai County OED
Mr. Bill Short, BIA of Hawaii
Mr. Ray Starling, HI Energy Grp
Mr. Lance Tanaka, Tesoro HI Corp
Dr. Don Thomas, UH Center for the
Study of Active Volcanoes
Mr. Murray Towill, Hawai'i
Hotel Assn
Ms. Joan White, Hon Community
Action Program

Testimony of
Darren Kimura
Co-Chair, Energy Efficiency Working Group

Senate Committee on Energy & Environment
Senate Committee on Education
Monday, February 4, 2008
1:15 p.m.
Conference Room 225

IN SUPPORT OF S.B. 2356 – Relating to the University of Hawaii

I am Darren Kimura, Co-Chair of the Energy Efficiency Working Group of the Hawaii Energy Policy Forum ("Forum"). The Forum has been meeting since 2002 and has adopted a common vision and mission, and a comprehensive "10 Point Action Plan," which serves as a framework and guide for meeting our preferred energy vision and goals. The Forum supports the passage of SB 2356 that achieves the goal of Point Two to promote conservation and energy efficiency.

The "Sustainable Saunders" initiative was originally proposed in Fall 2006 by the UH Legislators in Residence, Representative Barbara Marumoto and Senator Suzanne Chun Oakland. The initiative has been supported by the Forum and the efforts to date are to be commended.

The Forum became involved with the Sustainable Saunders initiative, which sought to become a model of sustainability on campus and for the state, beginning with energy conservation measures at the Saunders Hall building.

In 2006, the Forum, through its "Energy by Example" program, sponsored five \$20,000 professional Preliminary Energy Assessments, which were awarded to various organizations to demonstrate the cost-effectiveness of building and/or retrofitting buildings with energy efficiency measures. Saunders Hall, the focus of the "Sustainable Saunders" initiative, was awarded one of the assessments because of the interest by the University and the residents of the building as well as its potential for showcasing resulting savings through energy efficiency actions.

More specifically, the Forum's engineering assessment was used to identify Energy Conservation and Renewable Energy Measures that would save energy, promote sustainable form and function, and save taxpayer money. Opportunities for cost effectively installing technologies such as new air conditioning chillers, lighting upgrades and energy management controls were found. Additionally, renewable energy opportunities were identified to produce green power from a solar photovoltaic system and reduce thermal gain by the installation of a green roof. These would constitute a landmark project for the University and for the State.

Since the initiation of the Sustainable Saunders proposal, and as a result of the Forum's Energy by Example energy assessment, the UHM administration, in partnership with HECO and students and faculty from the campus, has installed an electrical sub-meter in the building to monitor energy use, and performed a lighting assessment of the building. Building occupants have also made impressive energy conserving behavioral changes.

These are important first steps; however, more is needed in supporting the UHM administration to move forward in demonstrating energy and dollar savings and an improved quality of life in the campus facilities.

S.B. 2356 provides an appropriation of \$1.024 million to fund the energy conservation measures and tests two renewable energy technologies – wind and solar. If implemented, these measures will provide Saunders Hall a savings of \$167,350 per year and save over a million kilowatt hours/year. This is the roughly the equivalent of:

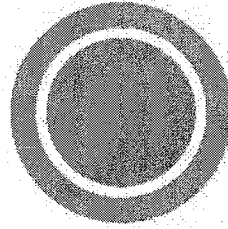
- Offsetting the energy consumed from approximately 90 households per year
- Planting approximately 958 trees per year
- Eliminating approximately 504,000 lbs of carbon dioxide per year

These energy efficient, sustainable initiatives would support the efforts of the UHM administration to demonstrate how existing buildings can showcase the energy goals of the University and of Act 96 passed by this Legislature in 2006, by demonstrating the benefits of energy, cost and greenhouse gas reductions and improved campus facilities as a result of collaborative work among numerous Hawaii stakeholders ranging from government to the private sector.

We strongly support the Sustainable Saunders initiative and SB 2356 as they advance efforts to achieve the energy conservation and efficiency goals of our 10 Point Plan.

Thank you for the opportunity to testify.

SUSTAINABLE SAUNDERS
Help Us Bridge (HUB) Student Sustainability Team



LATE TESTIMONY

LIVE CONNECT CREATE

Feb.1, 2008

TO: Senators Sakamoto and Menor, Chairs
Committee on Education and Committee on Energy
and Environment

Chair, Committee on Higher Education

FROM: Shanah Trevenna
Student Sustainability Coordinator
Sustainable Saunders Hall

RE: Expression of Support for SB2356, scheduled for testimony 2.4.2008 at
1:15pm

Senators Sakamoto and Menor and the Committee on Education and Committee
on Energy and Environment.

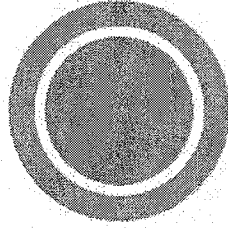
The student team working on the Sustainable Saunders Hall project at the University of
Hawaii at Manoa is very appreciative of the opportunity to testify in support of SB2356.

Our team is comprised of passionate, committed students who have made the Saunders
Hall project a top priority in our lives. Calling ourselves the HUB standing for Help Us
Bridge our mission is two-fold: to demonstrate a sustainable community evolution and
connect with the campus and extended community so that our united efforts can magnify
and accelerate change. We have designed a web site to make transparent every detail of
our progress such that what we learn, everyone learns (sustainable Saunders.hawaii.edu).

It has been a dream come true to coordinate this project. Previously, students devoted
toward sustainability felt alone in their efforts. Sustainable Saunders gives everyone a
tangible place to plug in and feel supported. Together we help each other brainstorm
ideas, raise funds and remain very inspired. Through our community outreach and
inclusive principles we aim to inspire and unite the community toward tangible change.
The whole is truly greater than the sum of its parts.

Sustainable Saunders is also a unique opportunity to apply the UN's proven, whole-
system approach which explores how improvement efforts in one area affect all other
areas. And by working with the community throughout the entire process not only does
this project evaluate the environmental and economic impact of sustainable solutions, it
emphasizes the impact on an often overlooked asset, the people who live, breathe and
work here. We are exploring the effects on behavior, health, productivity and perhaps
most importantly, hope.

SUSTAINABLE SAUNDERS
Help Us Bridge (HUB) Student Sustainability Team



LIVE CONNECT CREATE

While we have been able to accomplish much with donated time and equipment from the community, we are approaching the time when additional resources are needed to invest in equipment that will pay itself back within a few years through the energy savings. Air conditioning repairs and retrofits would be top of the list. We also hope to invest in an energy management system that would help us manage the energy use resulting in conservation, but would also serve as an on-line portal for the community. UH should also be taking the lead in renewable energy for Hawaii. Saunders is the ideal site to have the first wind and solar demonstrations, especially since we've designed the plan with facilities and experts in the field. We just need some additional capital to make it happen.

Thank you once again for the opportunity to testify in support of Sustainable Saunders, a project we are very passionate about and which has been the source of much inspiration, collaboration and tangible action.

Shanah Trevenna
Student Sustainability Coordinator