



COLLEGE OF SOCIAL SCIENCES

HAWAII ENERGY POLICY FORUM

UNIVERSITY OF HAWAII AT MANOA

Hawaii Energy Policy Forum

Ms. Stephanie Ackerman,
The Gas Company
Ms. Jeanne Schultz Afu'ai, Hawai'i
Institute for Public Affairs
Mr. Robbie Alm, Hawaiian Electric Co.
Mr. Warren Bollmeier
HI Renewable Energy Alliance
Mr. Albert Chee, Chevron
Rep. Denny Coffman, HI State House
Ms. Elizabeth Cole, The Kohala Center
Mr. Kyle Datta, New Energy Partners
Ms. Leiolama Desha, HGEA
Ms. Laura Dierenfeld, PATH
Mr. Mark Duda, HSEA
Sen. Kalani English, HI State Senate
Mr. Mitch Ewan, UH HNEI
Mr. Jay Fidell, ThinkTech Hawai'i, Inc.
Mr. Carl Freedman, Haiku Design
and Analysis
Sen. Mike Gabbard, HI State Senate
Ms. Kelsey Gaddy, City and County of
Honolulu
Mr. Mark Glick, State Energy Office,
DBEDT
Dr. Robert Harris, Sierra Club
Dr. Michael Hamnett, RCUH
Mr. William Kaneko, HI Institute for
Public Affairs
Mr. Darren Kimura,
Energy Industries Holdings
Ms. Kelly King,
Sustainable Biodiesel Alliance
Mr. Mike Kitamura, Office of US
Sen. Daniel K. Akaka
Ms. Susan Kodani, Office of US
Congresswoman Mazie Hirono
Ms. Gladys Marrone, Building Industry
Association of Hawai'i
Mr. Doug McLeod, Maui County
Dr. Stephen Meder, UH Center for Smart
Building and Community Design
Dr. Sharon Moriwaki, Social
Sciences Public Policy Center
Ms. Hermina Morita, PUC
Mr. Ron Nelson,
Defense Energy Support Center
Mr. Tim O'Connell, USDA Rural
Development
Mr. Jeffrey Ono,
Division of Consumer Advocacy
Ms. Melissa Pavlicek, Hawaii Public
Policy Advocates, LLC
Mr. Randy Perreira, HI State AFL-CIO
Dr. Rick Rocheleau, UH HNEI
Mr. Will Rolston, Hawai'i County
Mr. Peter Rosegg, Hawaiian Electric Co.
Mr. Steven Rymsha, KIUC
Mr. Riley Saito,
SunPower Systems Corporation
Mr. Ben Sullivan, Kaua'i County
Ms. Joelle Simonpietri, Simonpietri
Enterprises LLC
Mr. H. Ray Starling, Hawaii Energy
Mr. Lance Tanaka, Tesoro HI Corp
Dr. Don Thomas, UH Center for the
Study of Active Volcanoes
Ms. Maria Tome, State Energy Office,
DBEDT
Mr. Alan Yamamoto,
Office of U.S. Sen. Daniel Inouye

Testimony
Presented Before the
House Committee on Energy & Environmental Protection
The Honorable Denny Coffman, Chair
The Honorable Derek S. K. Kawakami, Vice Chair, and Members

DATE: Tuesday, February 07, 2012

TIME: 9:00 a.m.

PLACE: Conference Room 325

State Capitol

415 South Beretania Street

by

Warren Bollmeier

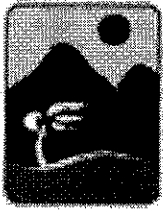
Chair, Renewable Energy Working Group
Hawaii Energy Policy Forum

IN SUPPORT OF HB2259, Relating to Energy:

I am Warren Bollmeier, Chair of the Renewable Energy Working Group of the Hawaii Energy Policy Forum ("Forum"). The Forum is comprised of 46 representatives from the electric utilities, oil and natural gas suppliers, environmental groups, renewable energy industry, and federal, state and local government, including representatives from the neighbor islands. We have been meeting since 2002, and have adopted a common mission and a vision of a preferred energy future for Hawaii. In 2005 it adopted a comprehensive "10 Point Action Plan" which serves as a framework for meeting our preferred energy vision and goals. HB 2259 achieves the following Forum goals:

- 1) Expanding renewable energy opportunities,
- 2) Reducing greenhouse gas emissions in Hawaii,
- 3) Improving energy efficiency & options in transportation,
- 4) Supporting sustainable development & use of biofuels, and
- 5) Ensuring the security & reliability of energy supply & distribution.

The State of Hawaii's Renewable Hydrogen Program [Section 196-10, HRS] calls for the development of a hydrogen economy in Hawaii and specifically calls for a hydrogen infrastructure, including hydrogen production, storage and dispensing capabilities. Currently there are several hydrogen infrastructure projects underway in Hawaii -- hydrogen fueling stations at three military bases on Oahu, and on the island of Hawaii, a fueling station at Hawaii Volcanoes National Park, a geothermal-to-hydrogen project, and a fuel cell electric bus to be operated by the County of Hawaii Mass transportation Agency. General Motors has identified Hawaii for the rollout of its hydrogen fuel cell electric vehicles and is working with Hawaii partners as part of the Hawaii Hydrogen Initiative (H2I) to introduce at least 25 hydrogen fueling stations on Oahu over the next 10 years.



COLLEGE OF SOCIAL SCIENCES

HAWAII ENERGY POLICY FORUM

UNIVERSITY OF HAWAII AT MĀNOA

The state currently does not have established hydrogen codes and standards. The current system is ad hoc. This makes each project a unique and time-consuming effort, and considerable time and money must be invested in ensuring that adequate safety is being accomplished in the development and execution of a design.

A lack of accepted codes and standards makes it difficult for relevant experts to implement the policies and meet many of the objectives of Section 196, and specifically for design engineers to design the needed infrastructure, for permitting authorities to evaluate the safety of projects and to accordingly issue permits, for the insurance industry to assess compliance and risk, and for developers to determine accurate cost estimates and acquire effective insurance policies. By utilizing an accepted standard – the National Fire Protection Association Hydrogen Technologies Code (NFPA 2), which is continuously updated by a combination of industry, academia, and national labs, the State can be assured that the state and projects are implemented using accepted standards. An additional benefit to the state is that we will have established codes and standards which can be implemented immediately without the cost of developing our own or the lengthy ad hoc review process that impedes development of an alternative fuel for Hawaii.

For the foregoing reasons, the Forum supports passage of HB2259. Thank you for the opportunity to testify.

This testimony reflects the position of the Forum as a whole and not necessarily of the individual Forum members or their companies or organization.



Testimony
Presented Before the
House Committee on Energy & Environmental Protection
The Honorable Denny Coffman, Chair
The Honorable Derek S. K. Kawakami, Vice Chair, and Members

DATE: Tuesday, February 07, 2012
TIME: 9:00 a.m.
PLACE: Conference Room 325
State Capitol
415 South Beretania Street

Presented by: Guy Toyama, President & CEO of H2 Technologies, Inc.

IN STONG SUPPORT OF HB2259:

I am Guy Toyama, President and CEO of H2 Technologies, Inc. A Hawaii Headquartered corporation developing hydrogen production and infrastructure for renewable transportation fuels, grid stability and energy storage.

The State of Hawaii's Renewable Hydrogen Program [Section 196-10, HRS] calls for the development of a hydrogen economy in Hawaii and specifically calls for a hydrogen infrastructure, including hydrogen production, storage and dispensing capabilities. Currently there are several hydrogen infrastructure projects underway in Hawaii -- hydrogen fueling stations at three military bases on Oahu, and on the island of Hawaii, a fueling station at Hawaii Volcanoes National Park, a geothermal-to-hydrogen project, and a fuel cell electric bus to be operated by the County of Hawaii Mass transportation Agency. General Motors has identified Hawaii for the rollout of its hydrogen fuel cell electric vehicles and is working with Hawaii partners as part of the Hawaii Hydrogen Initiative (H2I) to introduce at least 25 hydrogen fueling stations on Oahu over the next 10 years.

The state currently does not have established hydrogen codes and standards. The current system is ad hoc. This makes each project a unique and time-consuming effort, and considerable time and money must be invested in ensuring that adequate safety is being accomplished in the development and execution of a design.

A lack of accepted codes and standards makes it difficult for relevant experts to implement the policies and meet many of the objectives of Section 196, and specifically for design engineers to design the needed infrastructure, for permitting authorities to evaluate the safety of projects and to accordingly issue permits, for the insurance industry to assess compliance and risk, and for developers to determine accurate cost estimates and acquire effective insurance policies. By utilizing an accepted standard -- the National Fire Protection Association Hydrogen Technologies Code (NFPA 2), which is continuously updated by a combination of industry, academia, and national labs, the State can be assured that the state and projects are implemented using accepted standards. An additional benefit to the state is that we will have established codes and standards which can be implemented immediately without the cost of developing our own or the lengthy ad hoc review process that impedes development of an alternative fuel for Hawaii.

For the foregoing reasons, H2 Technologies supports passage of HB2259. Thank you for the opportunity to testify.

Mahalo,

A handwritten signature in black ink, appearing to read 'Guy Toyama'.

Guy Toyama
President & CEO
H2 Technologies, Inc.
73-4460 Queen Kaahumanu Hwy #131
Kailua-Kona, HI 96740



Select Engineering Services

Select Engineering Services (SES)
1544 Woodland Park Dr. Suite 310
Layton UT 84041
(801) 399-1858
Fax: (801) 399-1863

6 February 2012

The Honorable Denny Coffman, Chair
The Honorable Derek S. K. Kawakami, Vice Chair, and Members
House Committee on Energy & Environmental Protection
State Capitol
Honolulu, Hawaii 96813

RE: HB 2259 – Relating to Energy – Testimony in Support

Select Engineering Services (SES) has offices in Honolulu and supports Hydrogen infrastructure currently being developed at Schofield Barracks. SES supports the establishment of State codes and standards relative to Hydrogen storage and dispensing. The resulting dialog will help create an environment that fosters the further development of Hydrogen as a viable fuel source for fuel cell and hydrogen internal combustion engines within the United States.

We further recommend that the State of Hawaii utilize access to prototype Hydrogen storage and dispensing facilities existing at Joint Base Pearl Harbor - Hickam (JBPHH) and those being developed at Schofield Barracks, K-Bay, and Puna Geo-Thermal locations. These prototype DoD facilities will allow Hawaii to stay at the forefront of alternative and renewable energy solutions; serving as a viable resource for further analysis. SES further recommends that the State of Hawaii consider all applicable existing resources to analyze and establish codes and standards in an efficient and cost effective manner.

Sincerely,

A handwritten signature in black ink, appearing to read "Shane D. Hirschi".

SHANE D. HIRSCHI, P.E., C.E.M.
Vice-President
Select Engineering Services
1544 N. Woodland Park Dr. #310
Layton, UT 84041
Office: 801.528.5165
Cell: 801.791.1817

REALGREEN POWER

Zero Pollution, Zero Waste

February 6, 2012

Testimony in Support of HB 2259

Presented Before the House Committee on Energy & Environmental Protection

The Honorable Denny Coffman, Chair
The Honorable Derek S. K. Kawakami, Vice Chair, and Members

DATE: Tuesday, February 7, 2012

TIME: 9:00 a.m.

PLACE: Conference Room 325

State Capitol

415 South Beretania Street

by

Dennis Furukawa, CEO
RealGreen Power, Inc

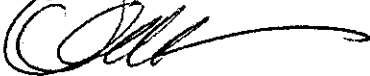
Chairman Coffman, Representative Kawakami, members of the Committee,

I am writing to you in my capacity as CEO of RealGreen Power, a renewable energy/environmental company based here in Hawai'i. RealGreen Power produces methane biogas by treating wastewater in anaerobic bioreactors. Methane is a major substrate for the production of hydrogen, through a process known as steam reforming.

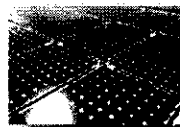
I urge you to pass HB 2259 which will set clear standards for the review and permitting of hydrogen production, storage and filling stations. The National Fire Protection Association's Hydrogen Technology Code is a nationally recognized standard that addresses the risks associated with all phases of hydrogen manufacture, storage, and handling. This is critical to help move Hawai'i forward by bringing in investment capital, creating sustainable jobs, and reducing dependence on fossil fuels.

Thank you for your attention in this important matter.

Signed,



Dennis Furukawa, CEO
RealGreen Power, Inc.



HOUSE COMMITTEE ON ENERGY & ENVIRONMENTAL PROTECTION

February 7, 2012, 9:00 A.M.

Room 325

(Testimony is 1 page long)

TESTIMONY IN SUPPORT OF HB 2259

Chair Coffman and members of the Committee:

The Blue Planet Foundation supports HB 2259, establishing hydrogen safety codes and standards. We believe passage of this measure will facilitate the research and development of hydrogen projects in Hawaii.

Blue Planet's mission is to end the use of fossil fuel on Earth, starting by making Hawaii a global role model for energy independence. Hydrogen—the most common element in the universe—will likely play a key role in our clean energy future, particularly in the transportation sector. Hydrogen can be used as a storage fuel, where hydrogen is created from geothermal, wind, or solar energy and stored (in pure gas, compressed, some chemical state, or through another medium) and used later in combustion or fuel cell applications.

The lack of established codes and standards for hydrogen use in Hawaii makes it difficult for researchers and engineers to design the needed infrastructure, for permitting authorities to evaluate the safety of projects and to accordingly issue permits, for the insurance industry to assess compliance and risk, and for developers to determine accurate cost estimates and acquire effective insurance policies. By utilizing an accepted standard – the National Fire Protection Association Hydrogen Technologies Code (NFPA 2), which is continuously updated by a combination of industry, academia, and national labs, the State can be assured that the state and projects are implemented using accepted standards. An additional benefit to the state is that we will have established codes and standards which can be implemented immediately without the cost of developing our own or the lengthy ad hoc review process that impedes development of an alternative fuel for Hawaii.

Thank you for the opportunity to testify.

Jeff Mikulina, executive director • jeff@blueplanetfoundation.org

55 Merchant Street 17th Floor • Honolulu, Hawaii 96813 • 808-954-6142 • blueplanetfoundation.org

Testimony For HB2259 Regarding Hydrogen
By
Ed Wagner
Owner Of Unique Energy & Water Efficient Home in Mililani

Chairman Coffman & Members of the EEP Committee:

Thank you for having the foresight or vision for Hawaii's future to introduce this bill.

HB2259 is an important bill because hydrogen will power the cars of the future, hydrogen fuel-cell cars that should be on the market within five years and will replace current electric vehicle designs. Honda and other auto manufacturers are testing such vehicles now. Electric vehicles are not truly green vehicles because the batteries are charged from electricity produced by oil in HECO's power plants.

Hydrogen is good for the environment because the ONLY product of combustion is WATER so it is vital that we plan for the eventual safe production, storage, and transportation of hydrogen between islands.

Some may argue that we can't ramp up geothermal energy as our base load energy source or add more solar or wind power to the grid for various reasons.

However, there is no excuse for ramping up our geothermal, solar, and wind energy resources, if for no other reason than to generate electricity during off peak hours for producing hydrogen for later use to generate electricity during peak demand and for powering our vehicles.

Hawaii may also be able to sell excess hydrogen to other states or other countries. Instead of exporting money for oil, Hawaii could export hydrogen and import dollars to improve our economy.

Please pass HB2259.

Sincerely,

Ed Wagner
Mililani