

**Rebuild Hawaii Consortium Meeting  
November 20, 2003**

**Notes**

*You can find copies of these notes and presentations on the Internet at*

*<http://www.hawaii.gov/dbedt/ert/rebuild/news.html>*

**Attendees:**

**Advanced Energy Technologies**— Scott Miyano  
**Archimedes Project**— Sandy Gabrielli  
**CDS International**— Hannah Wong  
**City & County of Honolulu**— Allyn Lee, Darren Wong  
**Colliers Monroe Friedlander**— Robert Martin  
**County of Kauai**— Glenn Sato  
**Department of Accounting & General Services**— Richard Yasunaga  
**Department of Business, Economic Development & Tourism (DBEDT)**— Liz Raman,  
Gail Suzuki-Jones  
**Department of Education**— Ray Minami  
**Eco-Lite**— Tom Brennan  
**Falcon Waterfree**— Bill Slaughter  
**Ferraro Choi**— Joe Ferraro  
**Hanco Sales**— Al Morgan  
**Hawaiian Electric Company, Inc. (HECO)** — Jim Maskrey, Sam Nichols, Tom Van  
Liew  
**Hickam Air Force Base**— Dave Stiner  
**Joots Foundation**— Kevin Vaccarelli  
**Kauai Island Utility Cooperative (KIUC)**— Joe McCawley  
**MMS Engineering**— Manfred Zapka  
**Pacific Energy** – Steve Olsen  
**Seagull Schools, Inc.**—Chuck Larson  
**Sustainable Honolulu**—Steve Holmes  
**The Gas Company**— Steve Golden, Charlie Senning  
**TTEMI**—Frank Kingery, Chris Lippert  
**U.S. Army**—Keith Yamanaka  
**U.S. Coast Guard**—Glenn Yanagi  
**U.S. Department of Energy Pacific Liaison**— Eileen Yoshinaka  
**University of Hawaii School of Architecture** –Alex Maly, Claire Rohlinger  
**Waterless Company**—Arun Savara

**WELCOME AND INTRODUCTIONS**

**Jim Maskrey**, President, welcomed the group saying that it was a pleasure to see so many people attending in view of the many other events taking place on Oahu at the same time. He explained the purpose of the Rebuild Hawaii Consortium, which is a voluntary networking and outreach group sharing a commonality of interests. He said that the first

half hour or so of any Consortium meeting is devoted to the members talking about their projects.

### **MEMBERS' REPORTS**

**Sam Nichols** spoke about the successful Rebuild Hawaii Exhibit that she organized for the Pacific Coast Electrical Association Conference and Exposition held in Maui, September 25 and 26, 2003. She showed a slide of the exhibit and mentioned that she would bring the display to the next meeting for the members to see.

**Gail Suzuki-Jones** reported on a series of Energy Star Internet presentations that she is organizing and announced that the next one would be focused on Universities and Colleges. So far, there have been three presentations: Energy Star Purchasing and Procurement; Energy Star Cash Flow Opportunity Calculator; and Benchmarking Tool/Portfolio Manager. **Jim Maskrey** remarked that the Cash Flow Opportunity Calculator was an excellent tool; **Tom Van Liew** said that he was still working with Energy Star to ensure that the benchmarking tool worked for Hawaii.

**Steve Holmes** reported that the Board of Water Supply is now a member of the Sustainable Honolulu partnership. The University of Hawaii/Board of Water Supply memorandum of understanding was signed and several conservation measures will be implemented at the University. The Board of Water Supply will also provide rebates for water efficient appliances. Sustainable Honolulu is working with HNEI and HECO to develop a Hydrogen Park in the Kapolei Civic Center. The park will include a solar parking lot cover for a 100-150 KW PV system.

**Glenn Sato** said that the audit report on the Kauai Lagoons Golf Course has been provided to the new owners for their information and possible implementation.

**Ray Minami** mentioned that there is a collaborative effort by the DOE, DAGS, the Robinson Family, and private consultants to improve the energy efficiency at the Niihau School campus. Recently, a catchment system was constructed to improve their water system. Future considerations include the improvement of their electrical power system possibly through the use of solar or wind energy, improvement of their waste treatment system by the use of a compost system, and the improvement of their facilities through the use of sustainable energy efficient designs utilizing natural ventilation and lighting.

During September, DOE held a series of workshops with Hawaii state officials and local design professionals and evaluated the criteria that guide design of new schools and school renovations. Based on results of these meetings, Charles Eley, consultant to the Department of Education through the Rebuild America Energy Smart Schools Program, prepared recommendations for changes to the Educational Specifications for new construction and major renovations maintained by the Department of Education and the DAGS Consultants Design Criteria for new construction.

Eley, DOE, DBEDT and US Dept. of Energy officials made site visits to seven Oahu schools and two Maui schools to understand some of the issues and problems related to

thermal comfort and energy efficiency in Hawaii schools. Recommendations for both retrofit and new construction were made in a report entitled “Recommendations for Energy Efficiency and Sustainable School Design and Retrofit”

Minami also mentioned that the Waipahu High School would be seeking LEED certification.

**Charlie Senning** reported on the Gas Technology Institute proposal for the Hawaii Sustainable Urban Energy Project which will study representative buildings at the University of Hawaii Manoa for distributed generation, CHP and solar energy systems deployment, and viable Oahu wastewater treatment facilities for bio-power or on-site power generation with heat recovery, using bio-gas generated from the anaerobic sludge digestion process. The project is funded at \$170,000, with cost share from The Gas Company, University of Hawaii at Manoa, City & County of Honolulu and DBEDT.

**Alex Maly** reported on University of Hawaii projects including the portable classroom analysis, solar and water catchment projects, energy awareness day, and that the University had hired an energy manager.

**Joe McCawley**, KIUC, introduced himself and said that the utility is interested in learning more about the Consortium.

**Dave Stiner** discussed a water conservation project at with the Board of Water Supply, and a proposed 1.4 MW cogen unit using chilled water project in partnership with HECO, both at Hickam Air Force Base.

**Eileen Yoshinaka** reported on a water conservation project.

**Glenn Yanagi** reported on the Coast Guard solar outdoor lighting project at Sand Island.

**Keith Yamanaka** reported that the Army will be privatizing its water system and has a water DSM program that uses sewage effluent for irrigation. The project anticipates saving 365 million gallons of water and 3 million kWh of pumping energy annually.

**Tom Brennan** passed out a publication “Year in Energy 2003” to the group and reported on a Navy retrofit lighting project at the Navy Exchange Distribution Center Warehouse. The project converts 1000 watt high bay fixtures to 400 watt hi bay fixtures with a hi-lo sensor capability.

**Chuck Larson** described the Seagull Schools project to build two large day care centers using sustainable design concepts that will reduce energy consumption over a conventional building by 20-50%. He is interested in natural ventilation and technologies that do not involve air-conditioning for cooling the centers. He also mentioned that his projects involve interaction between senior care and child care.

**Bill Slaughter** described water conservation and appliances such as low flow toilets and waterless urinals that are being distributed by Falcon Waterfree and Waterless Company (represented by Arun Savara).

**Richard Yasunaga** said that DAGS is working with DBEDT on audits of five state facilities in order to determine energy savings potential. The final report is expected at the beginning of the year.

**Steve Olsen** gave a presentation on an innovative lighting project at Newtown Estate. The retrofit provides more safety and better light to recreation areas, tennis and basketball courts, and saved the owner 60 to 65% on its utility bills. The project will be submitted for an international lighting award. This particular project is the first in the State for tennis and basketball court lighting with Magna Ray. For more information, please email Steve at [solsen@pacific-energy.com](mailto:solsen@pacific-energy.com).

## **FEATURED PRESENTATIONS**

***State of the Art Energy Efficient Technology.*** Jim Ogorek, Principal, the Ogorek Group, described advances made in Compact Fluorescent (CFL) and Light Emitting Diode (LED) technologies. Ogorek said that although bulbs should be selected by light output (lumens) rather than watts, it is very hard to convince people to replace a high wattage incandescent with low wattage CFL with greater or similar lumens. He talked about the new Westinghouse “nanolux” line, Mooncell streetlights, and INOVA LED flashlight. Samples of various products were demonstrated and participants had the opportunity to discuss these products in greater detail at the end of the presentation. Ogorek says that the new technologies provide lower operating costs, sufficient light levels, similar or better light, and prevent pollution. He predicts “LED is where lighting is going!”

**Radiant Cooling: Alternative Air Conditioning Methods.** Dr. Manfred Zapka, Sr. Project Director, Marc M. Siah & Associates, Inc., pointed out the difficulty of bringing about change in acceptance of new technologies. He thinks that people should be involved by motivation, urgency, and enthusiasm for the technologies being proposed. His presentation includes several very interesting charts of the status of the world wide oil supply and concludes that oil and gas production is declining 4-6% a year. Some innovations he proposes are to use cold seawater for cooling, and in that regard he is preparing a feasibility study for the Board of Water Supply.

**Creating Green Buildings.** Greg Franta, FAIA, Principal Architect, ENSAR Group, Inc., introduced the U.S. Green Building Council (USGBC) and its efforts to transform the worldwide marketplace for green buildings through the LEED rating system, which ranges from certification through a platinum level. LEED is a communications tool for architects, developers, and building owners, setting high targets for sustainability in buildings. Franta described several design tools that optimize performance and some examples of LEED rated building in the United States. He mentioned that China has set high standards (gold or platinum) for new buildings, targeting a 1.5 million square foot trade center, among others.

In Hawaii, NOAA, NELHA, Navy and Marine Corps are pursuing LEED ratings. He described several LEED products which are available or in development including LEED guidelines for new construction, existing buildings, commercial interiors, core and shell, homes, neighborhoods. Franta says that preparing LEEDS certification documentation would cost anywhere between \$8,000 to \$30,000 depending on the project; average number of hours required for preparing documentation is about 100.

## **ANNOUNCEMENTS**

January 29, 2004	Sustainability Workshop on Daylighting
February 10, 2004	Rebuild Hawaii Consortium Project Planning Meeting
February 26, 2004	LEED training course

(Thanks to everyone who provided input into these notes.)