

Rebuild Hawaii Consortium Meeting

February 10, 2004

Notes

*You can find copies of these notes and presentations on the Internet at
<http://www.hawaii.gov/dbedt/ert/rebuild/news.html>.*

Attendees:

BIA Hawaii—Karen Nakamura

CH Guernsey—Sheldon Hunt

City & County of Honolulu—Darren Wong

County of Hawaii—Ray Carr

County of Kauai— Glenn Sato

Department of Business, Economic Development & Tourism (DBEDT) – Maurice Kaya, Liz Raman,
Dean Masai, Howard Wiig

Department of Education— Ray Minami, Ken Kajihara, Gilbert Chun, Randy Higa

Eco-Lite— Tom Brennan

Global Energy—Bettina Foster

Hawaii Army National Guard—John K. Hao Sr.

Hawaiian Electric Company, Inc. (HECO) — Jim Maskrey, Sam Nichols, Tom Van Liew

Joots Foundation— Kevin Vaccarelli

Kauai Island Utility Cooperative (KIUC)— Joe McCawley

Marine Corps Base Hawaii—John Dunbar

Maui Economic Development Board—Sharon Mecum

Navy Region—Eric Kawamoto

Queen's Medical Center—Ron Tolleson

Seagull Schools, Inc.—Chuck Larson

Sustainable Honolulu—Steve Holmes

The Gas Company— Steve Golden

TTEMI—Chris Lippert

U.S. Department of Agriculture—Lorraine Shin, Thao Khamoui

U.S. Department of Energy Pacific Liaison— Eileen Yoshinaka

University of Hawaii School of Architecture —Alex Maly, Claire Rohlinger

WELCOME AND INTRODUCTIONS

Jim Maskrey, President, welcomed the group and spoke about the objectives of this meeting, which was to provide participants experience with developing project proposals. He also spoke about the mission and objectives of the Consortium.

STATE AND FEDERAL ENERGY INITIATIVES

Maurice H. Kaya, Chief Technology Officer of the Department of Business, Economic Development and Tourism, in discussing State and Federal Energy Initiatives, said that it has become more difficult to work with the U.S. Department of Energy on our projects as their emphasis has become basic and long term research rather than deployment. More emphasis has been put on regional programs. In regard to the State, the Governor supports sustainable energy and has set a goal of achieving 20% renewable energy generation by 2020. The Renewable Portfolio Standards are one way to achieve this. Current Strategic Industries Division initiatives include the Gateway Distributed Energy Research project to be housed in a LEED platinum rated building at the Natural Energy Laboratory of Hawaii. Kaya mentioned that this

Center is hoped to be the nexus for attracting applied research projects to Hawaii. Other initiatives are the Hydrogen Power Park Project, a platform to integrate hydrogen and fuel cells being developed at the City and County of Honolulu Kapolei Civic Center and to maintain better U.S. Department of Energy National Laboratory connections. In regard to the latter, Kaya said that the Strategic Industries Division has executed a joint Memorandum of Understanding with the National Renewable Energy Laboratory to pursue various joint programs.

HOW TO LEVERAGE RESOURCES THROUGH REBUILD HAWAII

Eileen Yoshinaka spoke on how to leverage Federal programs such as the State Energy Program, Special Projects, and Federal Energy Management Program.

Liz Raman presented information on resources available through Rebuild America and the Rebuild Hawaii Consortium.

Bettina Foster spoke about opportunities available to the group from the Electric Power Research Institute.

GOVERNMENT FUNDING THROUGH THE U.S. DEPARTMENT OF AGRICULTURE (USDA) RURAL DEVELOPMENT PROGRAM

Thao Khamoui, Rural Housing Service Program Director, USDA, and **Lorraine Shin**, State Director, spoke about the history of the USDA Rural Development Program and the various type of financing it offers, including rural utilities, housing, and community services. The program operates in Hawaii and throughout the American Pacific. Some of the larger projects financed include Kauai Island Utility Cooperative (electric utility) and Sandwich Isles telecommunications. The agency also financed an underwater electric cable in Palau. Further information on these programs may be obtained from the USDA State Office telephone 808-933-8321.

ANATOMY OF A PROJECT: CONCEPT THROUGH IMPLEMENTATION

In preparation for the work on project development to follow, **John Dunbar**, Resource Efficiency Manager, Tetra Tech EM Inc., and Marine Corps Base Hawaii, presented a summary of how to develop and implement an energy project. His presentation is available on the website.

PROJECT PRESENTATIONS

Sam Nichols facilitated presentations of 8 project concepts developed by members including small business, commercial buildings, government, renewable energy, schools, and military. Following the presentations, the group broke up into three small groups to consider the following projects:

1. Green Government buildings—led by Ray Carr
2. Project Niihau: Sustainable energy for education—led by Randy Higa.
3. New technologies for energy efficiency for small business-led by Bettina Foster

Summaries of these projects follow:

GREEN GOVERNMENT BUILDINGS

A PROJECT FOR THE REBUILD HAWAII CONSORTIUM

The group working on the project at the RBHC meeting of February 10, 2004 came up with the following project proposal for this initiative:

PROJECT GOALS

- Increase the sustainability of new and major renovated State and County Buildings through mandatory LEEDS certification
- Build a case for public officials and decision makers – “It’s the Responsible Thing To Do”
- Get grass roots/community buy-in

PROJECT SCOPE

- Obtain data on projections for new buildings to be built by the State and all four Counties using information being developed for the Hawaii Model Energy Code.
- Research the additional costs that will be incurred for construction and the certification process for Hawaii - basis LEEDS Silver level. Also evaluate:
 1. Operational costs over the life of the building
 2. Productivity gains due to improved working environment/IAQ aspects
- Hold briefings and workshops for architects, designers and government leaders
- Consider using the process adopted when the Model Energy Code was introduced.
- Use Hawaii County as a model for grass roots support (West Hawaii Civic Center).

RESOURCES

- Rebuild Hawaii Consortium partners
- Utilities’ design assistance \$ through their DSM programs
- State Energy Program of the US DoE
- Green Building Council including the local chapter presently being formed.
- County of Hawaii and other County governments
- Environmental groups and foundations
- UH School of Architecture
- AIA – American Institute of Architects
- US DoE’s Rebuild America program
- ASHRAE
- Dept. of Defense
- NREL

NEXT STEPS

- Ray Carr will introduce this concept to the local ‘grass roots’ committees on the Big Island with a view to spearheading the program
- Ray Carr will coordinate with Steve Meder, Professor at UH Architectural School, on their on-going “High Performance Building Standards” – the two projects may be synergistic
- Secure buy-in and support from all Big Island stakeholders
- Seek funding for scope and goals
- Seek matching funds for in-kind support
- Estimated \$75,000 needed to fund the program.

Rebuild Hawaii Consortium
Project Niihau: Sustainable Energy for Education
Project Development and Time Line

Project Scope:

- 1) Finalize energy matrix via Niihau school input
- 2) Plan, design & construct PV system for cafeteria refrigerator, freezer, lighting and water heater.
- 3) Plan, design & construct PV system for school.
- 4) Conduct maintenance training and monitoring program.
- 5) Planning and design should consider logistics of transporting and set up. No over night stays allowed.
- 6) Train designated personnel by the Robinsons to set up system on Kauai.

Potential and Existing Project Resources:

- 1) Rebuild Hawaii Consortium – Technical Assistance and Funding
- 2) Department of Education – Lead Coordinator
- 3) County of Kauai- Technical Assistance and Funding
- 4) DBEDT – Energy Division- Technical assistance
- 5) USDA – Funding and Technical Assistance
- 6) Private Citizens-
- 7) Niihau Community- Labor/Maintenance
- 8) KIUC –Technical Assistance
- 9) Foundations – Funding
- 10) PICHTR- Technical Assistance
- 11) PMRF – Technical Assistance

Project Lead:

- 1) Department of Education

Partners:

- 1) Robinson Family
- 2) Rebuild Hawaii Consortium
- 3) County of Kauai
- 4) DBEDT
- 5) USDA
- 6) Vendors
- 7) Navy
- 8) Department of Accounting and General Services

Next Steps:

- 1) Seek USDA funding
- 2) Complete Rebuild Hawaii Grant Application
- 3) Continue forming partnerships
- 4) Complete “Whole System” design
 - a. PV
 - b. Generator
 - c. Safety and ease of operation
- 5) Preliminary Cost and Estimates
- 6) Key Approvals
- 7) Project a Go!

Small Business Outreach for the Big Island- A Program to Promote New Technologies for Energy Efficiency for Small Businesses

PROJECT DESCRIPTION

Global Energy Partners (Global) proposes to design and implement a program to promote new technologies and energy efficiency financing alternatives to target the hard to reach small business sector for the County of Hawaii. This program would focus on new energy efficiency technologies for small business applications such as HVAC controls for rooftop units, lighting and hot water heating. The program would include education, audits, assistance in implementation and follow up of retrofits.

Small businesses do not have the time or expertise to commit resources to energy efficiency projects. Global will provide their expertise to assist and facilitate the process of evaluating what new technologies are technically and financially feasible and determine what types of funding alternatives are available. Global will also provide the follow up to make sure the modifications were made and the results were achieved.

This program could be implemented in tandem with HELCO's demand side programs with a possible focus on the west side of the island.

Task 1: PROGRAM DESIGN-Global will design the program that will include close coordination with HELCO and ESCOs concerning available rebates, audits, and financing alternatives. This includes defining the "small business sector" as well as development of marketing and educational materials. The following provides a breakdown of items discussed in the Rebuild Hawaii Brainstorming Session on February 10,2004 as they pertain to Task 1:

- a. Define small business with HELCO's assistance
- b. Break out end uses
- c. Focus retrofits in high use areas
- d. Identify financing alternatives:
 - i. USDA-Rural Association
 - ii. Local Banks
 - iii. HELCO rebates/ low interest loans

Task 2: PROGRAM ADMINISTRATION AND IMPLEMENTATION-Global will market to and recruit small businesses on the Islands to participate in this program. Participation would be defined as the business owner evaluating what new technologies might provide energy savings to meet their technical and financial requirements. Global's role will be to help the business owner determine what energy efficiency projects are feasible and help them to implement projects that meet their technical and financial criteria such as simple paybacks. The following provides a breakdown of items discussed in the Rebuild Hawaii Brainstorming Session on February 10,2004 as they pertain to Task 2:

- a.Utilize HELCO's contacts
- b. Possibly use 4-5 University of Hawaii students for auditing and/ customer recruitment-this would include training and monitoring of students
- c. Utilize resources through Women In Technology

Task 3:PROGRAM VERIFICATION-Global will provide follow up with each participant to ensure the modifications were made and the estimated results are being obtained.

POTENTIAL PARTNERSHIPS

County of Hawaii
HELCO
ESCOs
HVAC control companies
HVAC Service companies
Lighting Companies
Solar Hot Water Heating Companies
Hawaii Economic Development Board
Women In Technology
DBEDT
University of Hawaii
Chamber of Commerce
BOMA
Motel/Hotel Associations

BUDGET

The following is a preliminary rough order of magnitude budget for discussion purposes. These costs include estimated travel, labor and G&A at 10%.

Tasks	Budget
Task 1: Program Design	\$10,000
Task 2: Market and Recruit Participants	\$60,000
Task 3: Follow up with Participants post modific	\$30,000
Total	\$100,00

Next Steps

1. Formalize proposal
2. Establish contact with potential partners
3. Revise proposal according to feedback from potential partners
4. Obtain funding for project
5. Design, Implement and Verification of Program

Desired Outcomes

1. The desired outcome includes awareness, education and energy and demand reduction for small businesses
2. Based on the success of the program, possibly expand to neighbor islands.