

Rebuild Hawaii Consortium Meeting
February 14, 2006
HEI Training Room, 8th floor
American Savings Bank Building, Alakea and S. King Sts.
Honolulu, Hawaii

Notes

*You can find copies of these notes and presentations on the Internet at
<http://www.rebuildhawaii.us>*

Attendees are listed on the final page.

WELCOME AND INTRODUCTIONS

Jim Maskrey, President, welcomed the group.

Congratulations to Eileen Yoshinaka, Pacific Liaison, U.S. Department of Energy, on her retirement. A brief ceremony was held to recognize Eileen for her 32 years of Federal Government service, 9 of them with the Rebuild America Program. Sam Nichols presented a slide show celebrating some of Eileen's achievements.

PRESENTATIONS

George Benda and Dave Munn, Chelsea Group Ltd., *Moisture and Energy Management in Hawaii Buildings*, emphasized that the "devil is in the details" in solving moisture problems in buildings. The goal of moisture control is dryness not cold and the interface with the outdoors must be managed. A case study on the \$55 million correction to moisture/mold problems at the Hilton Hawaiian Village Kalia Tower was presented. Chelsea's presentation also discussed exterior and interior sources of moisture, HVAC sources of moisture, mechanical issues, and presented suggested solutions for major problems.

Kevin Saito, Naval Facilities Engineering Command (NAVFAC) Hawaii Energy Manager, *Ford Island Photovoltaic (PV) System on Bldg 54*, recounted the issues involved in installing the largest photovoltaic array in Hawaii. The project originally began as a joint 100-KW HECO/Navy project and evolved into a 309-kilowatt (KW) system covering 31,000 square feet of roof space on Building 54 at Ford Island, incorporating 1,545 solar panels. The \$2.1 million project has anticipated energy cost savings of \$60,000 per year and produces power directly to the Navy's Ford Island grid. It reduces harmful pollutants through use of renewable energy, increases independence from oil, increases the Navy's power surety level, and moves the Navy toward EPACT 2005 goals.

John Dunbar, Marine Corps Base Hawaii (MCBH) Resource Efficiency Manager, made a presentation on the Base's *Super T8 with Daylight Harvesting Ballast Demonstration Project*. Eight fixtures in four offices were retrofit with the ballasts and Super T8 fluorescent lamps. The project had three evaluation phases: (1) base case—T8 lamps with electronic ballasts; (2) T8 lamps with daylight harvesting dimming controls; (3) New super T8 lamps with daylight harvesting dimming controls. A comparison of phase 1 with phase 3 showed a savings of 1218 kwh/yr for the 8 fixtures, or \$158. Simple payback of the project, including a HECO rebate, was 3.7 years.

Ivo Martinac, Director, Environmental Sustainability in Tourism Program (TIM/UH) described the goals of the State's newest Rebuild America Partner, in his presentation on *Environmental Leadership in Tourism*. TIM, the School of Travel Industry Management, educates and trains personnel for the tourism industry and serves as a catalyst to stimulate the tourism industry's innovation and progress.

To this end, TIM has established a Center (Hawaii Center for Environmental Leadership in Tourism). The Center's mission is to assist the hospitality industry in integrating state-of-the-art environmental stewardship technologies, processes, methods, and behavior in operations aimed at optimizing overall performance (economic, environmental, social).

Lee Cranmer, Sr. Construction Manager Schofield Barracks, Actus Lend Lease, *Efficient Housing at DOD Facilities*, provided an update on the \$1.987 billion project to construct 5,388 new homes, renovate 2,120 non-historic residences, renovate 386 historic homes and construct six community centers at seven Army housing areas on Oahu. The project is unique in that it will have 7 MW of photovoltaics that will generate 30% of the electrical needs of the housing. The 3.6 KW solar panels will be installed on 2-car garages throughout the housing areas. All 5,388 new homes will also have solar water heating.

Michael Hamnett, Executive Director, Research Corporation of Hawaii, University of Hawaii, spoke on the collaborative *Hawaii Energy Policy Forum—10 Point Energy Plan*. The Forum's mission is to share information and diverse viewpoints of its stakeholders to raise understanding and reach common grounds to support implementation of its energy vision. They have received a grant from the Environmental Health Administration to implement Forum Strategy. From 2002-2004 they commissioned studies, developed a vision of Hawaii's Energy Future, held an Energy Policy Summit, and published an Energy Strategy. Recent activities have included a public education campaign as well as adoption of governing documents for the Forum. The group has submitted proposed legislation on renewable energy, energy efficiency, regulatory reform, and long term energy security to the 2006 Hawaii State Legislature.

Jerry Whitehead and Greg Zabinski, Tower Engineering, *Third Party Permitting*, described architectural and engineering services they provide to help local developers obtain building permits from government entities. Plan reviews include pre-design, schematic design, design development, staged permitting (demolition, foundation, supplemental [shell/steel, mechanical], and final build-out. The review process mirrors that of the City & County of Honolulu.

Colin Gerrard, Chem Free Hawaii, discussed *Chemical Free Water Treatment for HVAC and Other Applications*. Gerrard predicts that water costs will increase 61% by 2011, energy costs 65% by 2010. He says that HVAC costs are 45% to 60% of a building's load; water cooled chiller plants cost 25% to 60% less than similarly sized air-cooled plants. Gerrard says that the Dolphin, non-chemical, treatment for cooling towers can control microbial life and prevent formation of scale leading to both water and energy savings.

Tom Brennan, Eco-Lite, demonstrated the T8 lamps with dimming ballasts piloted in the MCBH project (See Dunbar, above).

The Rebuild Hawaii Consortium shares information about new products, practices and services, but does not promote or endorse products or vendors.

Attendees

Actus LendLease—Lee Cranmer

Andrews Technology Inc. (ATI)—Richard Andrews

Building Industry Association—Karen Nakamura

Chamber of Commerce of Hawaii—Jim Maskrey

Chelsea Group—Brenda George

Chem Free Hawaii—Colin Gerrard

City & County of Honolulu--Allyn Lee, Darren Wong

Colliers, Monroe, Friedlander—Robert Martin

County of Kauai—Glenn Sato

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

Department of Education—Brenda Lowrey, Nick Nichols, Gilbert Chun

Division of Consumer Advocacy—Brysen Poulton

Eco-Lite– Tom Brennan

Energy Analytics, LLC—Rich Fall

Energy Industries—Miles Kubo, Karen Leifheit

The Gas Company—Charlie Senning

Harmony Lighting—Wendell Seay

*Hawaiian Electric Company, Inc. (HECO) —Jim Maskrey, Gary Ambach, Alan Hee, Sam Nichols,
Joe Feind, Kevin Chock, James Brown, Diane Filibeck, Dragos Opreacu, Shane Akagi, Kyle
Akagi, Lily Koo, Dean Oshiro*

Illuminating Engineers Society—Howard Wiig

Island Pacific Academy—Hartson Doak

Johnson Controls, Inc.—Michael Chang

Klopfenstein's Lighting, Inc.—Dan Weyant

Pacific Islands Construction—Dennis Swart

Pacific Rim Connections—Sterling Nakano

Research Corporation University of Hawaii (RCUH)—Mike Hamnett

Tetra Tech, Inc.--Frank Kingery

Tower Third Party Review—Jerry Whitehead, Greg Zabinski

U.S. Coast Guard—Glen Yanagi

U.S. Department of Energy—Eileen Yoshinaka

U.S. Marine Corps--Bill Nutting, John Dunbar

U.S. Navy

Navy Exchange—Ed Comes

NAVFACPACIFIC—Eric Kawamoto

NAVFACHAWAII—Kevin Saito

University of Hawaii Community Colleges—Rodney Yim

University of Hawaii at Manoa (SOA)—Steve Meder

University of Hawaii at Manoa (TIM)—Ivo Martinac