Green Workforce Development Symposium
Energy Efficiency Training Programs*

- Building Operator Certification (BOC)
  - 2011, 2012

- Green Building (LEED Certification)
  - March 2011, March 2012
  - Lanai and Molokai, 2011

- Home Energy Survey Professional (RESNET Certification)
  - May 2011, May 2012

*Offered through SLIM and VITEC
Renewable Energy Training Programs*

• Entry Level Photovoltaic Design and Installation (NABCEP) – June 2011
• Advanced Photovoltaic – July 2011
• PV Technical Sales – Sept 2011
• Solar Hot Water Design and Installation – Fall 2011
• Small Wind Turbine Design and Installation – Fall 2011

*Offered through SLIM and VITEC
Water Efficiency Training Program*

- WaterSense Inspector Training (WIT)
  - EPA WaterSense Inspector Certification
  - July 2011

*Offered through SLIM and VITEC
SLIM and VITEC Sustainable Business Program

- February 23: Solar Energy Pau Hana
  - Keynote Speaker: Mark Duda, President, Hawaii Solar Energy Association (HSEA)
- May 12: Sustainable Tourism
- June 30: Smart Grid and Energy Efficiency
- July 28: Advanced Tech in Agriculture
- October 27: Cost Effective Waste and Resource Recovery for Greater Business Sustainability
Additional SLIM Projects and Programs

- Sustainability Workshops
- K-12 Sustainability Education Grant (Hui Malama Learning Center)
- Green Industry Internship Program
- *Turning the Canoe* Documentary
- *Turning the Canoe* TV show
- UHMC Community Garden (in design phase)
- Maui School Garden Network
For more information on SLIM:

- Website: www.sustainablemaui.org
- Sign up for monthly newsletter on home page
- Facebook and twitter
Proposed BAS in Sustainable Science and Management

A BAS in Sustainable Science and Management program at the University of Hawaii Maui College will:

- Provide degree options to serve State and County workforce needs.
- Train students to be qualified for green workforce opportunities in Hawaii.
Hawaii Clean Energy Initiative (HCEI) and Maui County Energy Alliance (MCEA)

• US DOE and State of Hawaii
  – Goal for Economy/Energy to be 70% clean (renewable and energy efficiency) by 2030

• Maui Economic Development Board
  – Goal to provide 95% of all energy needs sustainably by 2020 and a carbon neutral footprint
Workforce Needs

- Energy efficiency provisions in the American Clean Energy and Security Act will create an additional 2,100 new jobs in the State of Hawai’i in the next 10 years
  
  — American Council for an Energy Efficient Economy (ACEEE)
Workforce Needs

- More than 2,000 “green” jobs in Honolulu in 2006, projected to grow by 691% to almost 16,000 in the year 2030
Workforce Needs

- **Greenjobsearch.org** lists more than 150 green jobs requiring a BS/BAS available in the state of Hawaii on Nov. 16th 2010.

**EXAMPLES:**

- **Assistant Environmental Manager**
  - with Actus Lend Lease

- **Environmental Planner** (2 positions available)
  - with Parsons Brinckerhoff

- **Environmental Scientist** (several available)
  - with AECOM
Employment vacancies on Hawaii with example company Johnson’s Controls (JCI),

Total number of listings (as of November 16\textsuperscript{th} 2010) = 70
Categories of listings include

- Building Efficiency Fellow
- Demand Planning Manager
- Energy Engineer/Scientist
- Program Manager
- Project Manager
- Field Operations Intern
- Systems Specialist
- Energy Solutions Performance Tech/Engr
- Envir. Health & Safety Program Manager
- Operations & maintenance facility tech
- Energy solutions sales manager,
- Renewable Energy Instructional Design Lead
Sustainable Construction Technology -- Energy Production

- PV Design and Install
- Solar Hot Water
- Wind Energy
15 kW PV array Installed on UH-MC Campus

-- Maui News June 22, 2010
Array Installed by Sus-tech Students

Students get safety training as well as marketable construction skills
NABCEP-Certified Industry Partners Provide Training
Array is Monitored by ECET Students over the Web in Real-time

Date: 3/27/2011
Energy: 22,863.32 kWh

CO2 avoided: 16,004.32 kg
Reimbursement: 9,833.51

Project continues with funding from ONR in collaboration with HNEI
Identify, outline and illustrate the fundamentals of existing and emerging technologies (including applications, processes and requirements) in:

- Energy, including distribution and management;
- Water resources management
- Wastewater treatment
- Waste management.
Program Learning Outcomes

• Assess and design the financial feasibility of investing in sustainability measures using simple payback, return on investment, and life cycle costing techniques.
• Propose and justify creative solutions to sustainability challenges that are scientifically, economically, socially and environmentally sound.
The Sustainable Living Institute of Maui is committed to integrating the principles of sustainability into all levels of education to help people build skills that are compatible with the community’s cultural, environmental, and economic aspirations.
Institutional Member of American Association of Sustainability in Higher Education

Institutional Member of the United States Green Building Council

National Bellwether Award for sustainability related workforce development initiatives

Partnerships with Earth University, The Royal Institute of Technology, Sandia Labs, and the Office of Naval Research
Faculty and Staff participate on Maui County Energy Alliance

Established partnership with Maui Electric Company

Maui Economic Opportunity supports campus based sustainability projects

Maui County recycling center located on UHMC campus

Sustainability at UHMC
Sustainability at UHMC

- Sustainable Living Institute of Maui
- 350 Construction Academy Students prepared for Sustainable Construction Technology Program
- Collaborating with Energy Service Company, Johnson Controls, to enhance sustainability curricula
- Established campus Sustainability Committee and “Go Green” student club
Partnerships and initiatives benefit BAS in Sustainable Science and Management

- additional exposure and opportunities for students enrolling in the program
- additional sustainability resources for faculty and students
- students with access to a wide range of internship and post graduate job placement opportunities
- opportunities for UH Partner institutions to offer this new degree program
UHMC is preparing graduates to lead Maui and Hawai‘i to a sustainable and secure economic future.