



Manoa Energy Performance Assessment Team

MEPA team meets to discuss progress and daily reports on energy usage.

MEPA Performs Lighting Energy Assessments Across Campus

The first Mānoa Energy Performance Assessment (MEPA) team was comprised of a group of volunteer students from the School of Architecture, the College of Engineering, Sustainable Saunders, and other concerned students. The effort was coordinated and data analyzed by David Nixon, an associate professor at the Public Policy Center, and Olwen Huxley, a sustainability specialist at the UH Sea Grant College. The team bustled through Hamilton Library during a 2-week time frame last summer (2008), collecting data on lighting, temperature, and humidity levels. Nixon and Huxley used this data to draw up a report for Facilities management which outlined energy-saving measures which could potentially save the university \$700,000/year in electricity costs.

Huxley left her post in October and Eileen Ellis was hired as the new Sea Grant sustainability specialist in January, 2009. Kathy Cutshaw, Vice Chancellor for Administration, Finance and Operations, allocated funds (\$27k) to hire student workers to continue the MEPA team efforts in 2009. Seven students were hired and trained in February and started conducting their first assessment: the Hawaii Institute of Geophysics (HIG) building, a 100,700-square-foot building constructed in 1963.

Each room is assessed for lighting and the occupant is interviewed to determine how many hours the lights are used in order to calculate an estimate of the total power usage for lighting. The results of the analysis showed 373,404 kWh are used for lighting the HIG building at a cost of \$78,415/year. If energy savings measures were implemented, such as adding switches, occupancy sensors, changing incandescent lights to compact fluorescent bulbs, and retrofitting old, inefficient fluorescent tube lighting to more efficient lighting, this power use could be cut 54%, saving the university an estimated \$42,231/year in electricity costs.

The MEPA team has gone on to assess the other buildings: the Marine Science Building, POST, Biomed, School of Architecture, George, Everly, and Wist Halls. If building occupants show an interest, MEPA students might mention energy saving habits such as turning off lights when leaving a room, turning off computers and peripherals, not using screen savers, etc. Retrofitting whole buildings' lighting systems might take a while for the university to implement, but building occupants can make changes in their behaviors that can save energy *today*. We all have the opportunity to make a difference.



Matt Mayberry prepares to analyze a laboratory in POST Building.

Contact: Eileen Ellis 956-2861
 ellis2@hawaii.edu