

UH Mānoa's Energy Management Office

The Energy Management Office is led by the campus energy manager and reports to UH Mānoa's (UHM) Vice Chancellor for Administration, Finance, and Operations. The Office has Campus-wide responsibility for minimizing energy and water use, and for implementing the resource and energy management plan. The plan seeks to achieve energy savings, promote indoor air and environmental quality, and minimize the overall environmental impact of campus buildings and infrastructure. Energy management at the Mānoa campus comprises a comprehensive program that considers all opportunities for achieving energy savings including life cycle cost analysis for all new and retrofitting projects. This includes, but is not limited to the consideration of energy efficient equipment and upgrades, coupling the repair and maintenance projects with the energy efficiency projects, the planning and execution of energy conservation measures including building commissioning and recommissioning, the implementation of energy saving operations and maintenance procedures, the utilization of an extensive campus-wide building energy management system, a campus-wide commitment to modifying behavior to decrease energy consumption and an ongoing energy training program for facilities and operations department personnel.

This Energy Management Office will perform a number of functions including:

1. Planning and Reporting

- Establish a comprehensive Campus Energy Plan that includes energy reduction goals, priorities, milestones and metrics for success; update Campus Energy Plan annually
- Provide load forecasting and energy use trending for budgeting, infrastructure planning, new building projects and building renovation projects
- Track performance and provide annual energy use report to campus administration with recommendations for improvements; provide energy consumption reports on a building, system, and school/department level to the degree information is available
- Develop and implement annual self assessment process
- Coordinate projects with UHM Long Range Development Plan, Campus Master Plan, Campus Energy Plan and project specific end-users
- Head campus efforts to establish and cost-effectively achieve carbon emission reduction targets

2. Project Funding (proposals)

- Assess and pursue funding options to implement projects and continue energy management program

3. Standards and Guides

- Develop university design and construction standards related to utilities connections and usage on campus and review of new facility designs

4. Surveys and Studies

- Conduct energy and water audits and lead efforts to conserve energy and reduce or contain energy/water-related costs
- Assess the potential of new and emerging energy efficiency technologies, and encourage the use of promising new equipment by the University community
- Procure and act on engineering studies of buildings and central cooling plants

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- Seek out reliable, alternative energy conserving technologies such as, but not limited to, combined heat and power systems, dehumidification systems, advanced direct digital control and energy management systems and applicable renewable energy technologies
5. Retrofit projects
 - Coordinate implementation of energy retrofit projects and assure their success
 - Document energy savings performance and lessons learned
 6. New Construction Review and Approval
 - Assess and assure compliance of new construction, retrofit and renovation projects with the University's water and energy policy
 - Assist in engineering and planning for all central plants
 - Review and approve/disapprove all maintenance and expansion capital projects
 7. Building Operation and Optimization
 - Assist Facilities Engineering with performance tracking and continuous commissioning (optimization) of buildings and systems
 - Champion methods and projects to minimize energy and water demand in campus buildings and central plants
 - Commission and recommission University buildings
 - Establish schedule for continuing evaluation of energy consumption in all aspects of all campus building operations
 8. Education and Outreach
 - Collaborate with faculty, staff and students on Campus-wide education and outreach programs
 - Maintain contact and cooperate with student and faculty groups interested in energy conservation
 - Maintain a Website that documents and promotes the University's energy management program(s)