Case study

University of Hawai'i Community Colleges

Hawai'i

$80 million in energy costs to be saved while enhancing education programs

The challenge: Investing in quality education in the face of America's highest energy costs

The University of Hawai'i Community Colleges have grown from a few technical schools in 1964 to today's seven-campus system which provides quality education to more than 34,000 students, 94 percent of whom are from Hawai'i. Their challenge is that Hawai'i's energy costs are among the highest in America. Every dollar spent on utility costs is a dollar that can't go to educational programs. Johnson Controls is working with the colleges to significantly reduce their energy costs and develop sustainability education programs for students, faculty and local communities.

The solution: A 20-year performance contract to improve energy efficiency at campuses and save $80 million in the process

Johnson Controls began working with the University of Hawai'i Community Colleges in 2010 to improve energy efficiency of their facilities. The improvements are projected to deliver $80 million in energy savings over a 20 year period. The results, which Johnson Controls guarantees, will offset the cost of the improvements and enable the colleges to continue investing in their educational programs.

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At a Glance:

University of Hawai'i Community Colleges

$80 million

- Projected energy cost savings resulting from facility and equipment improvements over the 20-year performance contract with Johnson Controls.

Five (5)

- Campuses in Hawai'i's seven-campus community college system whose classrooms, labs and other facilities are being made more comfortable, efficient, and sustainable including Honolulu Community College, Kapi'olani Community College, Leeward Community College, Windward Community College, and UH Maui College.

28,500

- Students who enjoy the improved learning environments at these five campuses and have the opportunity to learn about energy efficiency and sustainability to prepare for green jobs of the future.

5,200

- Metric tons of carbon emissions reduced through project, complementing Hawai'i's respect for the land.

The improvements include:

- High efficiency lighting
- Upgrading heating, ventilation and air conditioning systems
- Upgrading central plants at Maui College and Leeward Community College
- Expanded chilled water system
- Metasys® building management system to monitor and optimize equipment and system performance throughout the campuses
- Renewable energy sources such as solar photovoltaic arrays and solar hot water systems

By increasing energy efficiency and reducing fossil fuel consumption, these improvements make the campuses more sustainable and eco-friendly. That is particularly important to Hawaiians, whose culture fosters such a deep respect for the land that they bless it before any building construction can commence.

Educational support

Johnson Controls supports the University of Hawai'i Community Colleges' sustainability education efforts by developing learning modules that are integrated into their curriculum. Local experts speak on energy efficiency and conservation as part of a fellows program. Plus, the facility improvements provide students with a campus living lab that demonstrates how technologies reduce energy consumption. These educational resources raise knowledge and awareness among students, faculty and facility managers with regard to sustainability and also help prepare students who are interested in pursuing green jobs.

Results and Benefits

The five campuses across the University of Hawai'i Community Colleges are expected to save $80 million over 20 years. The results generated by these projects are guaranteed by Johnson Controls under the terms of the contract. Student and faculty are enjoying more comfortable learning environments, while the university system is able to direct more of their financial resources towards quality education.

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