



Case Study: Elon University, 7/1/2010

Elon University Strives to Meet Carbon Commitment Through Behavior Change

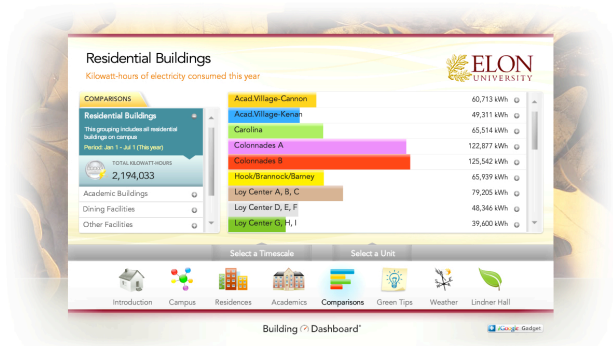
Monitoring Building Performance

For Elon University, a private liberal arts university located in Elon, North Carolina, sustainability is second nature. As a campus designated as a botanic garden, the school's oak leaf emblem is a symbol of their pursuit toward environmental stewardship.

Since the completion of their Sustainability Master Plan in 2007, Elon has made resource conservation a key goal, offering cost savings and the opportunity to train future leaders. One strategy to reduce energy consumption is through consumer education and engagement; to help achieve that goal they have installed Lucid Design Group's Building Dashboard® monitoring system. As part of the Building Dashboard, 54 of the 72 buildings on campus are tracking and displaying resource use in real time on the web, making visible for the first time the environmental footprint of the buildings in which students learn and live.

How It Works

Building Dashboard monitors and displays resource use information by accessing building performance data through Elon's building automation system. This allows the Dashboard to take real-time data from a variety of sources and display it in a user friendly and educational web-based platform.



Leveraging Real-Time Monitoring To Promote Sustainability

Every school is unique, but the challenges of sustainability have raised some common questions on college and university campuses. How do we use buildings as a teaching tool? How can we engage students and staff to foster behavior change and promote conservation? How can we communicate our long-term sustainability goals in ways that motivate collective action?

As Elon University strives to answer these questions they are using Building Dashboard in conjunction with other technologies and creative programs to meet their sustainability goals. Elon's goals span operations, curriculum, student life and facilities, and each of the campus constituencies are finding unique ways to utilize the Dashboard.

Faculty

Associate Dean Nancy Harris has used Building Dashboard as a teaching tool and a central component of a winter term course she facilitated called Journey to Sustainability. The class project focused on energy and sustainability, utilizing the Dashboard for an investigation of campus resource use. Students compared

performance of buildings in different groups, such as residence halls participating in the annual campus electricity reduction competition POWERless, or green buildings versus non-green buildings. They identified relevant differences between the groups, and recommended strategies to reduce energy use in those buildings.

Administrators

For Senior Vice President Gerald Whittington, the Dashboard is a way to communicate campus values to current students and alumni and keep an eye on finances. During the fall he was looking at the Building Dashboard for the Rhodes Stadium athletic facility, when he noticed that electricity use was much higher than usual on a Friday night which had no game scheduled. He guessed that the air conditioning had been left on and alerted the facilities department who quickly rectified the problem. This action just reinforced the value of his decision to establish a metering network to allow real-time savings.

Facilities

Paul Holt, Maintenance Control Manager, uses Building Dashboard for checks and balances. He compares usage profiles displayed on the Dashboard with information that Duke Energy provides. This enables him to identify discrepancies and make decisions about operations.

“Besides visualizing kilowatt-hours, the Dashboard is important because it makes building information public, and helps develop a connection between consumption and the physical infrastructure. The building photos make our infrastructure more personal and help people relate to their buildings in a new way,” said Holt.

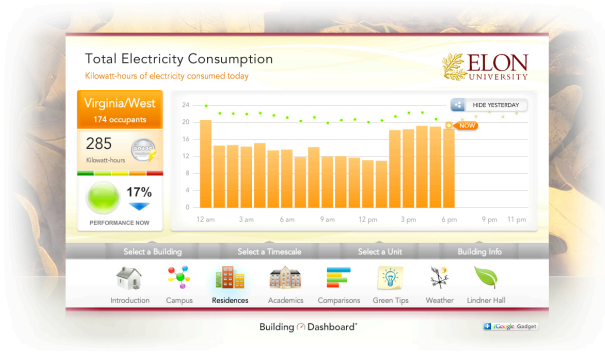
Students

Elon’s sustainability staff uses the Dashboard in a number of ways, integrating it into hall programs and grassroots organizing efforts, effectively communicating to different campus constituencies the goals and outcomes of their efficiency programs. “I can bring up the Dashboard and people instantly understand what we are trying to do,” said Sustainability Coordinator Elaine Durr.

The students involved in the Eco-Reps program use the Dashboard in their interactions with other students. In this peer to peer education program students give Sustainable Living lessons for classes and work with Residence Life staff to promote sustainable living in residence halls. The Eco-Reps and RAs host hall programs for which they use the Dashboard to show savings and promote conservation within the halls.

Fostering Behavior Change (and Saving Money) Through Competitions

For the past three years Elon has hosted an annual electricity reduction competition, POWERless , making them a national leader in developing and running conservation and behavior change programs. The results of



recent competitions have been impressive. In 2010 the seven-week POWERless competition saved 231,454 kilowatt-hours (compared to baseline consumption) and \$14,000.

In addition to providing monetary and resource savings, POWERless has been a powerful platform for student organizing by offering a variety of programs aimed at engagement and education. During the 2010 competition Elon hosted a Lights Out Bingo event, which encouraged students to turn off and unplug, and join friends for a social event aimed at building community and saving energy. The Dashboard offered “a visual illustration to students that individual actions and collective organizing can really make an impact on what we consume,” said Durr.

Well Positioned for Change

For Elaine Durr, Building Dashboard is really just the first step. Having the Dashboard makes their campus energy visible for the first time, and awareness is always the first step. The more challenging next steps are figuring out how to move a campus from awareness to greater action. Elon is planning a number of different initiatives to empower students, faculty and staff to change their behavior and plans to make the Dashboard a central part of that effort.

Read more about Elon University’s sustainability initiatives: <http://org.elon.edu/sustainability/>

