GREEN SCHOOLS / GREEN CAMPUS UPDATE NEWSLETTER

Using Energy Efficiency to Strengthen Education

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ALLIANCE TO SAVE ENERGY

Creating an Energy-Efficient World

WATT'S NEW

UT Austin Launches the Green Campus Program

First Campus in TX to Join Green Campus

The Alliance to Save Energy is thrilled to announce that the University of Texas at Austin has joined the Green Campus program. UT Austin will be the first school outside of CA to implement Green Campus, and we hope to build on their already robust commitment to energy efficiency and environmental protection projects.

Background: The Energy Challenge

The University of Texas at Austin is one of the largest universities in the country, and it continues to grow. The population of the people who attend classes (about 50,000), work, and teach on campus exceeds the population of many moderately sized towns in Texas. There are hundreds of buildings and facilities on campus, some dating back to the 1880's. The size and growth of the University adds to the dynamic and exciting atmosphere and inspires innovation.

However, while much intellectual energy flows from the community, much energy is wasted. This wasted energy results in many forms of pollution, including increased emissions of greenhouse gases.

Many campus buildings were designed and built before energy conservation was a primary concern and the building additions required to keep up with increasing technological demands may only add to their inefficiency. Nearly fifty-percent of all greenhouse gases emitted in the United States are a result of the energy used to keep buildings functioning, according to the U.S. Energy Information Administration. With this in mind, UT students and staff have joined the growing international effort to reduce the impact of their homes and offices on the environment. Currently, all of UT's power is generated on campus through an efficient combined-cycle power station that uses natural gas. However, other measures to increase energy efficiency are crucial in further cutting costs and reducing emissions.

Action: Conserving Energy at the University of Texas

During the month of October, students from residence halls across campus took part in the challenge to see by how much they could reduce their energy usage and carbon footprint in a month. They pledged to conserve energy during the first annual Residence Hall Energy Challenge. The students competed for the top prizes of a party given in their honor and cash toward a prize of their choice. Following a week of human powered kick-off events, such as a moonlit "capture the flag" game and acoustic concerts, the students got down to the business of saving energy, greenhouse gas emissions, and money.

The results were impressive. Over 10% (760) students took the pledge to reduce energy. Whitis Hall, the winner in the “Highest Participation” category had 100% of its residents committing to reduce. Breckenridge Hall led the “Highest Reduction” category with 31% reduction in total energy consumed. In fact nine out of the 13 dorms on campus showed a reduction in energy use.

In recent years, UT has made big strides toward reducing their energy and carbon footprint. But can they achieve even more by harnessing their intellectual and creative energy?

With the help of the State Energy Conservation Office (SECO) and the Alliance to Save Energy, they are initiating more programs that they hope will inspire students and researchers to continue to answer these questions and more. These projects encompass saving power through efficient computer lab operations, a solar panel audit of the campus, increasing local and organic food options in the dining hall, and ensuring that all new buildings are LEED Certified. Some projects will focus on the technology of sustainable energy, while others will encourage changes in habits. Both will be required to confront our energy challenge. We look forward to publishing updates of UT's progress as they save energy!

GREEN SCHOOLS & GREEN CAMPUS INNOVATIONS

Interns Spread the Energy Efficiency Message

Presidential Upgrades

On December 18, Green Campus Interns at Cal Poly Pomona and Energy Services Manager, George Lwin conducted a home audit of President Michael Ortiz’s home, replacing incandescent bulbs with 40 23W Compact Fluorescent Lamps (provided by SCE) and providing home energy saving tips to his wife, Mrs. Betty Ortiz, who also actively participated in the audit. In follow-up, the Green Campus team drafted a letter of thanks to the Ortiz’s for their participation and hope to garner greater support from the President on upcoming projects.

Reaching Out

In coordination with PG&E, the Green Campus team at UC Berkeley arranged an event with the Las Lomas High School environmental club in Walnut Creek, CA in order to provide students with energy efficiency project ideas. Alliance Program Associate Jennifer Alvarez provided an overview of the statewide Green Campus Program, and UCB Green Campus Intern Kameron Kitajima told the high school group about some of UCB's successful projects, such as the Blackout Battles residence hall energy competitions, Compact Fluorescent Lamp (CFL) exchanges, and lighting audits. Interns also led an idea sharing exercise for the implementation of similar programs at Los Lomas. The high school students were very interested in conducting a CFL exchange with sponsorship from PG&E in 2008. Next semester, the Green Campus team hopes to follow-up their initial presentation by training the high school students on basic lighting and appliance audits.

Peer-to-Peer Audits

In an effort to reach out to students residing outside of dorms, Interns at UC Santa Cruz identified the Crown/Merril Apartments as the pilot location for their Peer-to-Peer Apartment Auditing project. They have begun assembling Peer-to-Peer Apartment Auditing kits comprised of informational materials, audit forms, and other energy efficiency related items. At these apartments, Green Campus will be providing two versions of the program: 1) the audit, energy kits and more hands-on discussion with residents; 2) an educational campaign. Interns will track energy consumption before, during and after the campaign as well as survey apartment residents' attitudes and energy conservation behaviors during these same intervals.

Green Schools Spread the Word Too!

Elementary Students Learn from High School Students

The Juniper Elementary principal and Sultana High School teacher Mark Ziesmer have arranged for Juniper students to meet with Sultana High School students who completed the Student Energy Audit Training program. Sultana students plan to present energy basics to the elementary students, highlighting ways in which they can promote energy efficiency in their day-to-day lives.

Sultana High School students that completed the Student Energy Audit Training (SEAT) program have already made a presentation of their audit findings and recommendations to the school staff. Numerous parents attended the event in addition to school staff members. As part of the presentation, the student prepared an agenda and PowerPoint presentation, and solicited the assistance of preschool students as visual aids. Based on their audit findings, students estimated that Sultana High School could save $60,000 in energy costs if all recommendations were implemented. According to Local Project Leader Lorraine Gutierrez, this was one of the best student presentations of the hundreds that she has witnessed.

In addition, the Juniper Green Schools team plans to hold a CFL exchange event in February during the school Science Fair. But the Juniper Elementary students are getting involved in teaching as well; a Juniper student created an energy-themed skit that was performed in several school classrooms. The skit identified common energy wasting behavior and easy ways for kids to promote energy efficiency.

Mesquite Trails Publishes Energy Tips

The Mesquite Trails Elementary School team included a Green Schools reminder and energy saving tips in the "Eagle Express," a newsletter sent out to the school community.

They're also "walking the talk:" the school has implemented a number of energy saving practices as a result of Green Schools communications and activities. The Energy Patrol Club has begun conducting weekly walk-through assessments of the entire school to identify classrooms as “Energy Stars” or “Energy Wasters.” Students will post their results in the cafeteria, and will announce the Energy Star classrooms during the morning announcements.

In addition to using only half of the room lights wherever possible, the school has installed motion sensors in the classrooms, new blinds in the portables, and regularly turns off the 50 computers in the computer lab when they are not in use.

SCHOOL & CAMPUS RESOURCES

Events

The 2008 Green Campus Energy Efficiency Summit

The 4th Annual Alliance to Save Energy’s 2008 Green Campus Energy Efficiency Summit convened a diverse group of students, faculty, staff, and administrators from 13 California State University, University of California and private campuses. Summit attendees experienced a valuable networking opportunity, presentations of best practices, structured campus planning sessions, and high caliber speakers – including San Diego State University Dean of the Division of Undergraduate Studies Geoffrey Chase, climate action plan expert Peter Garforth, and co-founder of WorldChanging and Fellow at the Institute for Ethics and Emerging Technologies, Jamais Cascio. Attendees left the Summit with a deeper knowledge of the current state of, and next steps for, energy and energy efficiency issues as they pertain to campus communities and the environment.

The Summit represented one of the biannual program convergences which drew representatives from the UC/CSU/IOU Energy Efficiency Partnership; campus-specific faculty, staff and administrators; and national program affiliates to San Diego. Also in attendance were Alliance staff including Executive Vice President and Chief Operating Officer Brian Castelli,

Vice President for Education Merrilee Harrigan, Director of CA Education Programs Jo Tiffany, and over 50 state-wide student Interns.

Sunday, February 10, was an Intern-specific day in which they participated in rigorous trainings to hone their skills for all aspects of their energy and energy efficiency projects. Interns learned about emerging technologies such Smart Strips, vending misers, and real-time monitoring. Trainings also included metrics tracking tutorials, marketing seminars, resume, cover letter and interview sessions, and "Boot Camp" for all new interns. Sunday evening, representatives from the UC/CSU/IOU Energy Efficiency Partnership joined the Interns for a career discussion directly before a reception for all Summit attendees.

On Monday, February 11, campus interns, stakeholders, and other representatives from the Partnership participated in a full day of speakers, presentations, and planning sessions.

Preliminary assessment of our post-conference survey has shown that interns and stakeholders alike both enjoyed and benefited from the 2008 Energy Efficiency Summit.

Green California Summit and Exposition

Builders, property managers, developers, facilities managers, purchasing agents and anyone involved in greening their agencies or organizations should not miss the Green California Summit & Exposition (April 7-9, Sacramento Convention Center). The event, guided by an Advisory Board that includes senior state officials and leaders from the real estate community, combines an exposition featuring hundreds of green products and services with seminars and training. Discover green tools that can save you money, preserve the environment, and learn about regulations and how they will impact every segment of California government and industry. For more information, visit www.green-technology.org/gcsummit

National Environmental Education Week is Coming Up!

Being held from April 13 - April 19 this year, National Environmental Education (EE) Week is the single largest organized environmental education event in the United States. This year's theme is *Carbon Footprints,* so students will have the opportunity to learn about how their personal decisions are affecting the planet. Made possible by Canon, EE Week increases the educational impact of Earth Day by creating a full week of environmentally-themed lessons and activities in K-12 classrooms, nature centers, zoos, museums, and aquariums. Over the span of EE Week 2007 the combined efforts of nearly 1,450 schools, nature centers, museums, zoos, and other educational institutions taught over 3.5 million students about the importance of caring for our natural environment.

EE Week is coordinated by the National Environmental Education Foundation (NEEF) in cooperation with thousands of outstanding schools, environmental education organizations, education associations, and state and federal agencies.

For information about how to register your school and receive free curriculum resources and materials, visit www.eeweek.org.

Resources for Schools and Campuses

ASHRAE'S Energy Guide for Schools Available for Free

Energy costs are typically a school district's biggest cost after personnel, but energy costs can be controlled. The new *ASHRAE Advanced Energy Design Guide for K-12 School Buildings* will help your district save money--savings that can be devoted to educational resources. Follow the Guide and help your school save 30% or more on energy costs. Download it for free at www.ashrae.org/freeaedg or look for your hard copy—16,000 copies have been mailed to every school district in the United States.

About the Guide

The *Advanced Energy Design Guide* was written to help owners and designers of elementary, middle and high school buildings obtain at least 30% energy savings compared to the minimum requirements of ASHRAE Standard 90.1-1999. It features easy-to-follow recommendations for various climate zones, and how-to tips using real-life construction case studies of schools around the country that have achieved or exceeded the 30% target.

The Guide was developed through the collaboration of ASHRAE, the American Institute of Architects (AIA), the Illuminating Engineering Society of North America (IESNA), and the U.S. Green Building Council (USGBC), with support from the U.S. Department of Energy (DOE).

Get the Facts on Recycling and Energy

Everyone knows that recycling is good for our planet, but did you know that recycling can actually save energy? Value Added is a project conducted by CEEE Energy Educator Pat Higby and UNI graduate student Tony Fang which shows how much energy can be saved by recycling.

Many Green Schools participants have thought about the connection between recycling and saving energy. The University of Northern Iowa has an interesting PowerPoint presentation that makes the links clearer. For example, did you know that one recycled can saves enough energy to light 10 100 watt bulbs for one hour? Or that recycling in the USA saves enough energy to power the homes of 7 states like Iowa? Check out the complete PowerPoint here: http://www.uni.edu/ceee/programs/valueadded/index.html.