



GREEN SCHOOLS / GREEN CAMPUS UPDATE NEWSLETTER

Using Energy Efficiency to Strengthen Education



Issue 45 • December 2007

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ALLIANCE TO
SAVE ENERGY

Creating an Energy-Efficient World

WATT'S NEW

In the Spotlight

Green Campus at CSU Facilities Management Conference

Alliance to Save Energy's Green Campus Program served as a main feature of the recent California State University (CSU) Facilities Management Conference in Sacramento, CA. As a result of the student competition leading up to and during the event, four Green Campuses were recognized at the closing plenary by California Public Utilities Commissioner Dian Grueneich and CSU Office of the Chancellor Chief of Plant, Energy and Utilities Len Pettis. The student intern teams awarded include Humboldt State University (1st Place), UC San Diego (2nd Place), UC Irvine (3rd Place) and UC Berkeley (Honorable Mention). Student representatives from these teams presented program highlights to nearly 500 conference attendees by way of accepting their awards.

In total, 23 Green Campus Interns participated in the three day-long event, along with Alliance staff members including Vice President of Education, Merrilee Harrigan, and Director of CA Education Programs, Jo Tiffany.

On Sunday, November 4, Interns sponsored tables at the Sacramento Convention Center Exhibition Hall as part of the conference opening reception. With energy demonstrations, posters and informational handouts, the students engaged campus and industry stakeholders alike. Competition semi-finalists received final judging during this reception time based on their displays.



[Above: Student Competition Award Winners Pose with CPUC Commissioner Dian Grueneich and Len Pettis, Chief of California State University's Plant, Energy & Utilities]

On Tuesday, November 6, Green Campus sponsored a breakout session highlighting their tremendous success in fostering cohesive and effective student/staff partnerships. This session was moderated by Alliance Senior Program Associate Renee Lafrenz and featured four Green Campus Intern speakers.

The Green Campus Program was overwhelmingly well-received and highly praised for its energy saving successes; Alliance to Save Energy has already been invited to play a major role in the 2008 CSU Facilities Management Conference.

Chico Leads the Way at Sustainability Conference

The Third Annual "This Way to Sustainability" Conference was held on the CSU Chico campus from November 1-4. Chico GC interns helped host the event and facilitated three sessions: (1) How to Conduct Campus Energy Audits (which was co-presented with Humboldt State GC Interns); (2) Student Led Initiatives to Save Energy; and (3) Tour of the Sustainability House.

In the first session, Interns screened Humboldt State's video Phantom Hunter, discussed fundamental auditing techniques, and led the participants in a hands-on demonstration of watt meter, light meter and flicker checker usage. In the second session, Interns presented on their



experiences working with students, administration, faculty and facilities staff in implementing energy projects on the Chico State campus. Interns also discussed the procurement and installation of real-time metering technology and its impact on behavior change and energy savings in campus residence halls.

Lastly, In the third session, Interns and Green Campus Club Volunteers led groups of participants on tours of the on-campus 'Sustainability House' to see an example of the program's achievements in generating energy savings through behavioral and operational changes by working with campus residents.

[Left: Chico Interns receive their rebate check.]

One of the highlights of the conference was when Chico GC Interns were presented with a check for \$48,444 from PG&E, which was equivalent to the campus' annual savings from computer power management. Chico GC initiated this program by installing EZ GPO network based power management software on computers across campus. The rebate check from the UC/CSU/IOU Energy Efficiency Partnership will enter a Green Campus revolving fund available to Chico Interns for use in future efficiency projects.

Hesperia Showcase

About the Pilot Program

The Alliance to Save Energy Green Schools Program is developing a unique pilot program called the Hesperia Unified School District Green Schools Showcase. This pilot is engaging five schools from the Hesperia district—Sultana HS, Desert Trails HS, Rancho MS, Topaz ES, and Mesquite ES—and working intensively with them in an effort to maximize student involvement in energy efficiency activities.

Green Schools will work closely with each showcase school on all aspects of energy use and energy conservation, including school activities and equipment retrofits. In addition, it will be possible to "highlight" a new and unique collaboration between the Hesperia and Murrieta school districts to support Green Schools activities and results. The Showcase will foster collaboration among all members of the Green Schools teams with ideas and information being exchanged among teachers, students, and energy managers in both schools.

These showcase activities will be assessed and evaluated carefully with the intent of enhancing both the Green Schools program and the schools' energy savings capabilities. Secondary, long-term goals include building a strong partnership and mentorship between the Hesperia and Murrieta districts and creating a sustainable culture of energy awareness that will live on at the school and be carried forth by the students that the Program reaches.

Thus far, the Alliance team has met with interested parties in the Hesperia District to collaboratively brainstorm a plan for the schools. In addition to normal Green Schools activities such as incorporating energy into school academics, doing energy-saving projects, involving students in training and leadership experiences, and advocating and reaching out to the community, Showcase participants have also discussed the possibility of high school students gaining college credit for learning about energy and auditing and constructing a comprehensive energy policy for the district based on the lessons learned throughout the Green Schools Showcase and student research.

Perhaps most excitingly, the Alliance is working with SCE to hold a high-profile publicity event to be held in early 2008 that will highlight the ongoing success of the Hesperia District in implementing the Green Schools program and their collaboration and mentorship of the Murrieta District schools.

The Alliance to Save Energy remains optimistic as ever that this new and innovative showcase will work to inspire students, schools, and communities to take action to save energy while fostering enduring experiences and partnerships.

Fall Workshops

The Alliance to Save Energy team has also conducted two Fall Professional Development Workshops, the first in the Hesperia Unified School District, and the second in the Murrieta Valley Unified School District. New and second year schools attended, along with district administrators, and regional representatives from Southern California Edison (SCE), the program funder.



[Right: Green Schools "champion" team member Barbara Ward-Lawe (Desert Trails High School, Hesperia USD) presents Green Schools activities and 5-strand program planning]

Marking a new and exciting partnership, Hesperia Energy Manager Mike Virden and Murrieta Energy Manager Jeff Boone attended both workshops, and worked together to share best practices and assist with facilitation by actively engaging school teams in the energy savings planning process.

In addition, 3 “champion” teachers from Graduated Green Schools – Sultana and Desert Trails High Schools, and Urbita Elementary School – attended the workshops and assisted new school teams with their planning process. Together, both the Energy Managers and the champion teachers provided invaluable insights into the Green Schools program by sharing their experiences and answering questions from an on-the-ground, insider’s perspective.

Finally, SEAT trainer Elric Boardman attended the Murrieta workshop on October 18 to discuss the SEAT program with the school teams that are doing SEAT this year.



[Left: SEAT Trainer Elric Boardman discusses the SEAT program with Vista Murrieta High School's team]

The response to both of these preliminary meetings has been enthusiastic and energetic.

Energy managers from Hesperia and Murrieta have been in contact to share ideas and strategies. Energy Star ratings have been prepared for all five Hesperia “showcase” schools and all participating Murrieta schools. Four Student Energy Audit Training (SEAT) sessions are already scheduled to take place in the districts, with Hesperia students planning on presenting their findings to their school board.

GREEN SCHOOLS & GREEN CAMPUS INNOVATIONS

Efficiency Upgrades

EXIT signs

UC Irvine GC interns are working to retrofit the exit signs on campus. So far, interns have audited three buildings and have found 24 exit signs that are currently using 60 W incandescent bulbs. They have reported their findings to the UC Irvine Energy Manager and they are now working to get the signs replaced with much more efficient 5 W LED exit signs. Interns estimate that changing these fixtures will save 11,663 kWh per year, equivalent to 9,308 lbs of avoided CO₂ and \$1,156 in energy cost savings.



Copying Machines

In the course of conducting office energy audits this school year, Humboldt GC Interns discovered that most copy machines on campus, even though they are using the Energy-Star mode, were only saving 4 kWh. Interns felt that there must be a way for the Energy Star ratings to generate more savings, and contacted the service company earlier this semester to inquire about optimizing the machines for energy efficiency. The company agreed to train the Interns and gave them clearance to reset the modes on all of LD127 copy machines on campus in order to achieve the 60 percent reduction in energy usage. Interns then spoke with Campus Procurement to get a listing of the number and location of photocopiers on campus.

In December, Interns have been working with Department heads to conduct photocopier setting 'sweeps' during the Winter break. The sweeps will include training sessions for users and signage about the energy-saving program. GC Club Volunteers will follow up after several weeks to deliver a survey to help determine if any staff have had problems with the new settings. It will also be an opportunity to ensure the power down mode is still enabled on the machines. When this project is applied to the nearly 100 copy machines across campus, Interns expect to generate an estimated 36,500 kWh reduction over one year – a savings of \$3,650 annually in energy costs.

By the Numbers

1000 dollars awarded to UC Irvine by Wells Fargo Bank to support Green Campus activities

7978 CFL's exchanged by Green Campus Interns in October

44 California schools currently participating in the Green Schools program

Getting Campuses Involved

Take the Stairs Day

On October 25th, UC Santa Barbara GC held its first "Take the Stairs Day" of the year. Interns set up a table inside the Davidson Library lobby where they gave out snacks and petitioned students to take the stairs instead of the elevator. During their three hours of tabling, 44% of people took the stairs compared to the elevator, compared to just 13% taking the stairs in the week before when they just tallied behaviors. In addition to raise awareness about elevator energy use, Interns also promoted their CFL exchange website. Other Take the Stairs Day's will be held throughout the year, and often before a major GC event to help promote it.

Residence Hall Competition

CSU Chico GC held a week-long energy competition between Shasta and Lassen Halls. Prior to the Energy Competition, volunteers hung posters in the resident halls and coordinated with Student Environmental Ambassadors and Resident Advisors for each building to prepare the residents. Then during the competition, volunteers set up information tables and distributed 62 CFLs as well as information on energy efficiency techniques. Because both of the residence halls are equipped with real-time metering, residents and Interns were able to easily track building energy consumption and monitor each hall's respective lounge area. In the end Shasta Hall was named the winner of the competition with Lassen trailing close behind. Shasta hall used 13,600 kWh and Lassen consumed 14,200 kWh during the week. In comparison to the week directly preceding the competition, the efforts of the halls combined to save 13,018 kWh.

SCHOOL & CAMPUS RESOURCES

Student Contests

Igniting Creative Energy

Igniting Creative Energy (ICE) is a national student challenge to motivate learning, ignite the imagination, and fuel the creative potential in youth. In this competition, students are asked to develop entries in the categories of Visual Arts and Music, Science and Technology, and Language Arts that demonstrate environmental stewardship and that show how people can make a difference in their home or community. Among the 2007 winning entries were a children's book and pottery. There are a variety of prizes, including a trip to Hawaii for national winners, and prize packages valued at \$1,000 for each of the state and province winners. Students in K-12 throughout the U.S. and parts of Canada are eligible to participate. Entries must be postmarked by January 31, 2007. For more information, please visit <http://www.ignitingcreativeenergy.org/>

Essay Competition

The Presidential Forum on Renewable Energy is sponsoring a student essay contest in which three college students will be named and awarded a \$10,000 educational prize. The contest asks students to develop strategies that will minimize America's current and future dependence on non-renewable energy sources. The contest is open to students who, as of January 1, 2008, are between the ages of 18 and 24; enrolled, full-time or part-time, in an undergraduate college program; and a citizen of the United States of America. Essay submissions are due February 1, 2008. Visit <https://www.2008energyforum.org/essayContest>

Online Guides

Natural Lighting

The Daylighting Collaborative has just re-launched their website and it now contains new tools and resources for design teams and building owners and occupants. The site offers an all-in-one resource for daylighting, from research to design recommendations. Available for free are guides, links for photos and virtual tours, and listings of designs labs. With a \$60 annual membership, you get access to three online trainings and additional documents. Visit <http://www.daylighting.org/>



In the Media

- **The Fall 2007 issue of Current Magazine (a subsidiary of Newsweek) recognized the University of California for its sustainability efforts and quoted Vice President of Education, Merrilee Harrigan, in their cover story entitled “Planting a New Crop of Planeteers.”**
- **Education Associate, Emily Curley, was quoted in the article “Green Light on Energy Use” in the November issue of District Administration, a magazine for leaders in K-12 education.**