

Green Pastures

CAL POLY POMONA

**California Higher Education
Sustainability Conference @ UC Davis**
and Green Campus Name Change Announced!!



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A Publication of the PowerSave Green Campus Program at Cal Poly Pomona

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What is the PowerSave Green Campus Program?

The Alliance to Save Energy's Green Campus Program empowers college students to be tomorrow's energy efficiency leaders. Currently on 16 universities and colleges and employing over 100 interns each year, the program engages students in building pathways to green careers, realizing measurable energy savings, infusing energy and energy efficiency concepts into academic curricula, and promoting energy efficiency awareness. Green Campus interns work closely with faculty, staff, administrators, and other students to engage them in energy efficiency projects.

For more information please visit our website:

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CHESC 2012

Every year, PowerSave Green Campus interns attend the California Higher Education Sustainability Conference, this year at UC Davis. New project ideas are discussed, current projects are refined, and new concepts are learned. It is a great opportunity for any conference attendees to get caught up on sustainability efforts throughout the nation. You can't help but feel inspired and motivated to affect change, read all about our experience on pages 4-5...

On the Cover

Interns from 16 California PowerSave Green Campus teams alongside the Alliance to Save Energy staff at the CHESC conference on the UC Davis Arboretum grounds

Right

Participants of the EDR Design Charrette designed an educational facility for the client, Trash4Teaching. Read more on page 6...



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Green Campus Name Change

By Crystal Huang

Within the past few years, the meanings attached to the word “green” have become ubiquitous, combining all sustainable efforts and divisions under one extensive umbrella. Green can represent anything from forestry, to recycling, sustainability, and efficiency. For this reason among others, it is our pleasure to announce that the Green Campus program has changed its name and logo to the PowerSave Green Campus Program. This decision has been discussed over the past month, through conversation among the Alliance to Saver Energy staff and interviews with the student interns and stakeholder representatives. It has been decided that this name change will make it easier to discern between the PowerSave Green Campus Program from other programs (such as Green Team) and clarify emphasis on energy and water efficiency as opposed to other sustainable efforts.

To further clarify, this name change will be taking place for the following 2-3 years, in which the transition will ultimately drop “Green Campus” and make the name PowerSave dominant. This will allow for time to adjust and adapt the new logo and name throughout our campus and nationwide. One of the few concerns that many of our more technically inclined representatives have brought up is that power cannot, in fact, be saved. Though this is correct, PowerSave was intended to convey a more general message as opposed to a technical one, and encourage empowerment to effect change.

Ultimately, we understand that change is difficult and will take some time to adapt to. However, we hope that you are all as excited as we are for this change as it can only bring in new opportunities. Please let us know what you think, or if you have any questions or concerns with this change. Email us at greencampus.cpp@gmail.com or contact us individually through emails listed on page 7.

Photo above: Green Campus interns setting up for the event in front of Encinitas.

CHESC Conference at UC Davis

By Lynae Salgado

On June 18th to 21st, the PowerSave Green Campus flew to UC Davis for the 11th annual California Higher Education Sustainability Conference (CHESC). CHESC is an annual conference that holds a variety of discussions, tours, workshops and award ceremonies concerning energy efficiency and sustainability. The Cal Poly Pomona team was able to meet and collaborate with PowerSave Green Campus interns from other California campuses. Apart from student interns, attendees included higher education professionals such as sustainability coordinators, facility managers and college planners. Members of the team participated in a variety of topic discussions that covered areas such as water efficiency, retrofits and green jobs. The experience of the entire event left the team inspired and eager to begin working on many new project ideas for this upcoming school year. Also, Cal Poly Pomona's sustainability coordinator, **Meaghan Smith, was awarded the honor of Sustainability Champion for Cal State schools!** Her efforts to make the campus more sustainable was greatly recognized throughout the conference. Meaghan spoke at several discussions where she was able to share her past projects and future plans with other higher education professionals. The conference proved to be a very beneficial and awarding experience for all Cal Poly Pomona representatives, we all certainly look forward to next year's conference!



Photo Above: PowerSave Green Campus interns goofing off during a group photo at the CHESC conference.

“Smart Lighting” Demo

By Brandon Sauer

As the sun set on the PowerSave Green Campus interns, another experience was beginning at this year’s California Higher Education Sustainability Conference. The interns were given the opportunity to explore the UC Davis campus at nighttime and see their futuristic outdoor lighting system in action. The campus implemented this nearly million dollar retrofit under the Smart Lighting Initiative, enacted in 2010 to help the campus save 60 percent of energy levels— or 30 million kWh — by 2015.

But what exactly is this “Smart” Lighting system? With the help of the California Lighting Technology Center, UC Davis has replaced almost all of their old outdoor light fixtures with new, low-wattage LED technology. The LED fixture remains in a dim setting (about 30% power) until it senses someone along the path and automatically flips to 100% power. Much of the “smarts”, however, is seen when simply walking down a path. Using adaptive lighting technology, which is a mixture of occupancy sensors and communication, the lights can essentially determine which direction a person is moving, and thus light the path accordingly. After the lights determine the person is no longer in the vicinity, they return to the default dimmed setting. Additionally, each fixture is connected to a network which can be accessed remotely to control each light individually or in groups. This can be used to control default dimming percentages, see what lights are active, flash lights in case of an emergency, or just to calculate savings, among many other uses.

Upon completion, the outdoor lighting network is projected to save more than 1 million kWh annually, which in combination with indoor lighting retrofits will save \$3 million a year. In addition, Keith Graeber, director of engineering at the UC Davis California Lighting Technology Center and leader of the tour, emphasized that one of the key features of the smart lighting system is the safety it provides, “and that’s something you just can’t put a price on”.



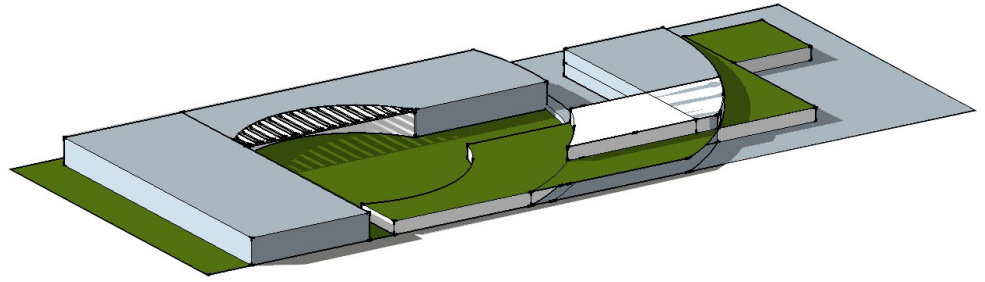
Field Trip: California Lighting Technology Center

By Sony Bui

The PowerSave Green Campus interns were given a chance to take a tour around the CLTC’s (California Lighting Technology Center) facility during the California Higher Education Sustainability Conference at UCDavis. However, you might ask yourself, what exactly does CLTC do up in northern California? Its mission is simple, to assist and accelerate the development of energy-efficient lighting, such as the Adaptive Campus Control System recently entering its finishing stages at UCDavis. CLTC accomplishes these goals by demonstrating new technologies and reaching out into the community by providing partnership with utilities, lighting manufacturers, designers, builders and other governmental agencies. Through demonstration and education, CLTC helps establish key market connections by promoting next-generation, emerging lighting technologies and designs. Furthermore, CLTC offers technical assistance in the adoption of emerging technologies.



Photo Left: CLTC representative shows off the network capabilities of the lighting system at UC Davis Photo Above: Demonstration of lighting capabilities from dim to full power Photo Below: Lighting demonstration at the tour of the CLTC center.



EDR Design Charrette

By Crystal Huang

Photo above: The educational facility design that won second place at the Design Charrette. On the team include PowerSave Green Campus CPP interns Brandon Sauer and Crystal Huang.

Following a long, but informative week at the CHESC 2012 conference at UC Davis, students were given a great opportunity to participate in the Energy Design Resources (EDR) design charrette. So many of you might be wondering what exactly does a design charrette entail. It is a two-day intensive brainstorming session, where groups of four to six simulate an integrated design process. Each participant is given a role: project owner, architect, contractor, engineer, and landscape architect. With these roles, the team must collaborate on the design of a zero net energy building and at the same time consider this interdependent system where each role is involved in most, if not all of the design process. Ideally, this would reduce on-site problems, technical issues, and reduce overall cost.

The project was an educational facility for the client Trash4Teaching in Gardena, California. Throughout these two days, each group of students were able to consult with energy and design professionals from firms such as PG&E and Architectural Energy Corporation among others. Using computer programs such as climate consultant, students were able to analyze site details, determine building lighting solutions, and climate accommodations. At the end of the charrette, groups presented their project to a panel of design and energy professionals to win an iPad. A fair trade for an intensive two-day brainstorming session.

Stakeholder Meeting Success!

By Julia Hernandez

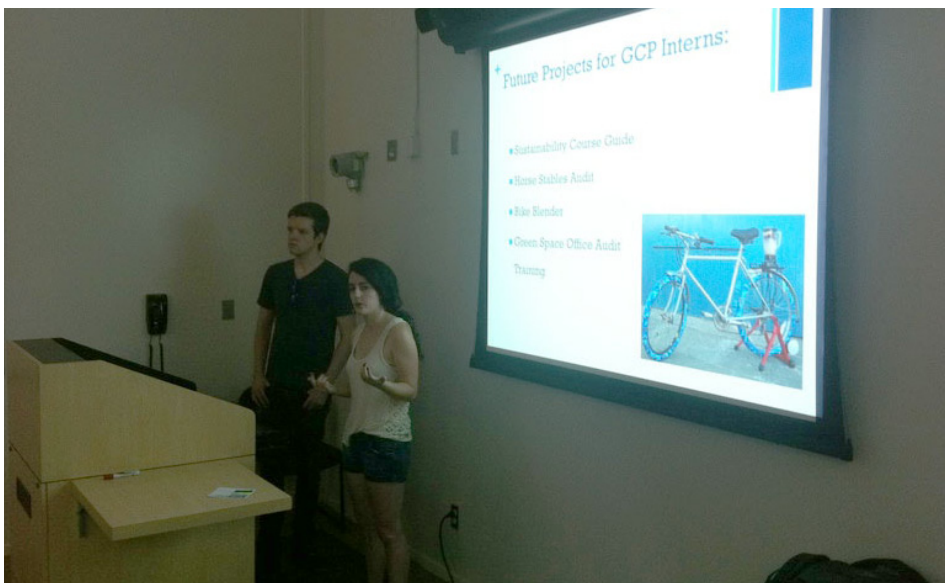
May 25th marked a much anticipated day for the CPP PowerSave Green Campus interns. The Annual Stakeholder Meeting took place at the Lyle Center of Cal Poly Pomona where interns and stakeholders alike congregated to discuss the various projects that the PowerSave Green Campus Program implemented throughout the 2011- 2012 school year.

The presentation brought forth projects that directly executed the valued four pillars of which the program is built on—energy savings, academic infusion, outreach, and workforce development. This included projects such as E-tap, WIFI Thermostat, and the Horse Stables and were also followed by the introduction of forthcoming projects. As the presentation continued, the PowerSave interns recognized the achievement of a new Green Space office certification presented to the Division of Student Affairs Career Center with the status of being Green Certified. The presentation concluded with feedback and project ideas generated by the present stakeholders. The successful meeting honored for their continued and appreciated support and interns left ready to apply newly surfaced ideas.

Green Campus By the Numbers - July 2012

EVENT	ENERGY	WATER	CO2 EMISSIONS	\$\$\$	People Attended
Sustainability Pledge*	6027 kWh	39,055 gal	9823 lbs.	\$1130	25

*NOTES: *Comprises potential, projected savings for 1 year. **Comprises of actual savings for 1 year.*



Professor Dan Yuhasz Welcomes Interns to Lyle Center

By Grace Jaen

As PowerSave Green Campus interns, it is not only a requirement that we reach out to students and try to get them involved with our organization, but also a pleasurable experience. And what better way to meet new people than by giving presentations to classrooms full of students we have not yet had the pleasure of meeting. Luckily for us, Professor Dan Yuhasz who teaches multiple Regenerative Studies courses, has worked with PowerSave Green Campus for years now on multiple projects and was more than happy to welcome PowerSave Green Campus interns Sony Bui, Brandon Sauer and Grace Jaen into his classroom. Hidden up on a hill by the Farm Store is the Lyle Center, located on a gorgeous 16 acre oasis that you would never even know was there if you weren't looking for it. The center is 100% carbon neutral thanks to two solar panels that rest on the top of the hill. In fact, George Lwin of Facilities, one of PowerSave Green Campus's most valuable stakeholders on campus, was instrumental in bringing these solar panels to Cal Poly Pomona back in 2010. Lwin procured these two concentrated photovoltaic (CPV) solar systems from California-based company Amonix, Inc., leading designer and manufacturer of CPV commercial solar power systems. The Lyle Center is extremely lucky to have these two amazing pieces of equipment which generate 210,000 kW hours of clean, renewable energy annually and save the university approximately \$30,000 a year in reduced energy purchases.

The interns were so excited to present at such a sustainable facility and came prepared to present to a large classroom that might be more concerned with, like most students, when they get out of class than what the presenters had to say. But the interns couldn't have been more wrong. Presenting to an extremely small classroom of only 8 students was shocking, yet extremely intimate. The interns first presented about current and future projects they were working on and how students could get involved, then left the floor open to any comments or questions. And almost every student participated in the open discussion, sharing amazing ideas with the interns. They were given so many suggestions for possible projects and how to get other students on campus involved that they couldn't write the information down fast enough! Reluctant to leave the Lyle Center because of its enticing beauty, the interns walked away having successfully reached out to students they had never had contact with before, while gaining new and valuable information of their own.

Photo above: Interns Grace Jaen and Brandon Sauer presenting the PowerSave Green Campus Program to Professor Yuhasz's class

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