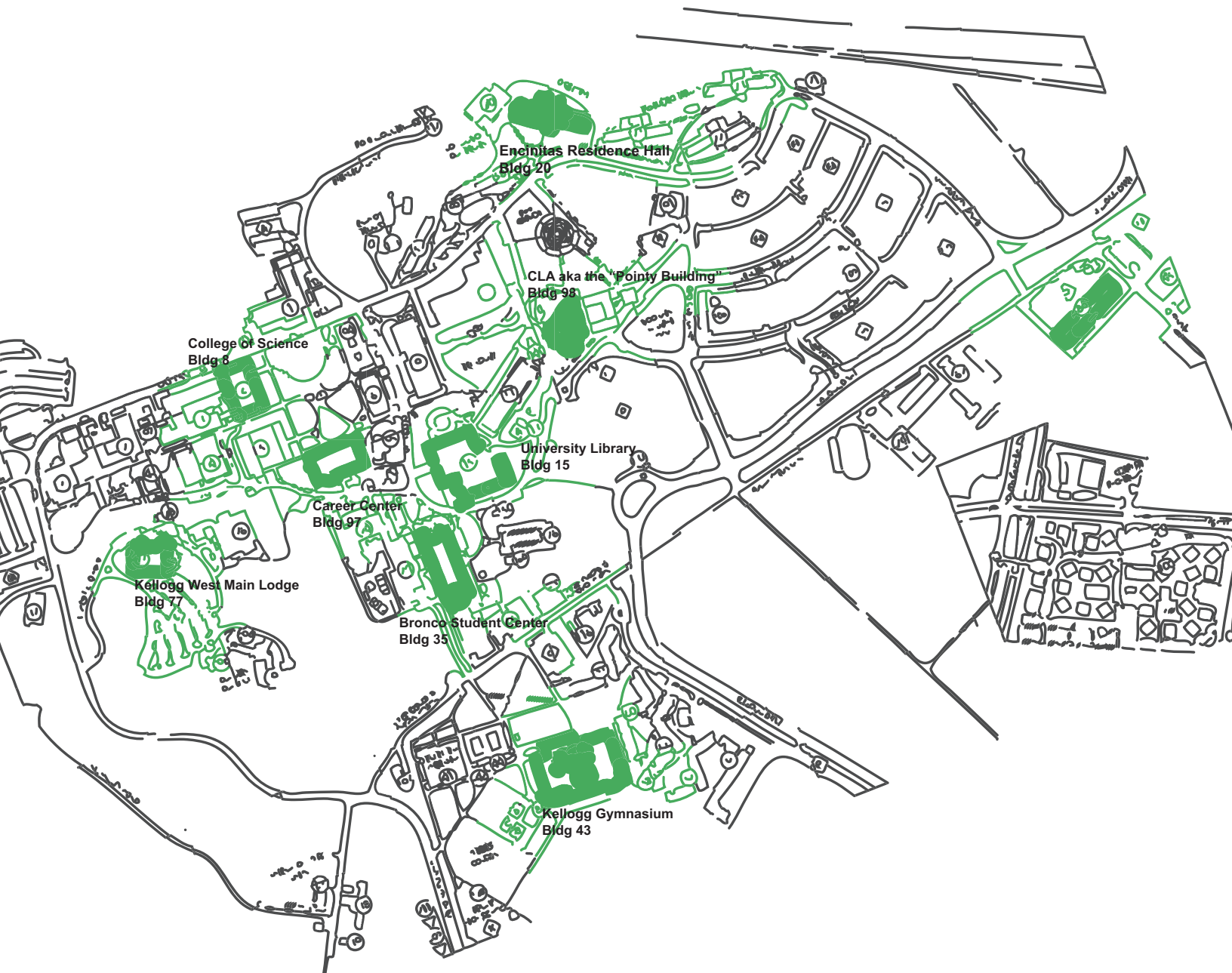


Green Pastures

CAL POLY POMONA



Happy New Year from Green Campus!
What we are looking forward to this year



v.VI | n.1 | January 2012
A Publication of the Green Campus Program at Cal Poly Pomona

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Green Pastures

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What is the 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 75 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:

www.GreenCampusCPP.org

For general inquiries contact us at:

green-campus.cpp@gmail.com

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Bringing in the New Year...

The Cal Poly Pomona's Green Campus interns have a few exciting new projects for the new year and quarter!

- WiFi Thermostats
- Sustainability Course Guide
- Campus Conservationals Nationals
- PLOS Smart Strips

On the Cover

A preview of Cal Poly Pomona's poster for the 2012 Energy Efficiency summit featuring Green Space. pg 7



Right

The UC Berkeley campus, where 2012's Energy Efficiency Summit will be held.

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ALLIANCE TO
SAVE ENERGY

Creating an Energy-Efficient World



Pacific Gas and
Electric Company



Sempra Energy utility*

The Alliance to Save Energy's Green Campus Program is funded by the ratepayers of California under the auspices of SCE, SDGE, PG&E, and Sempra Energy.

Saving Energy Has Never Been This Simple

By Grace Jaen

If you want an easy way to save energy while simultaneously reducing your electricity bill, then the installation of Plug Load Occupancy Sensors or “Smart Strips” is the smartest way to go! Simply put, Smart Strips detect motion in the workspace. When the workspace is unoccupied for 30 minutes, the Smart Strip shuts off power to selected outlets, leaving power on only for the devices that need it. When the sensor detects motion in the workspace, power is restored. The power strip also protects all of your equipment with surge suppression and AC line noise reduction technology. The Green Campus has already installed over 1,000 Smart Strips around campus, including the colleges of Agriculture and Letters, Arts, and Social Sciences. And with the implementation of an additional 200 Smart Strips in offices like yours, the potential annual savings for Cal Poly Pomona will total over \$20,000. If your office is interested in having the power strips installed for free, contact the team at Green Campus for more information. We all should try to reduce our environmental impact while here on earth and Smart Strips are simple solutions that not only reduce our energy use, but help our campus save thousands of dollars.



Future of Etap

By Sony Bui

In May 2011, Cal Poly Pomona provided information on the HVAC (Heat, ventilation, air conditioner) systems of the Old Administration Building, Agricultural Building, and the Aerospace Building to ETAP, an Energy Technology Assistance Program. A plan was drawn using this information to estimate the energy and financial savings of retrofitting the buildings with the new wireless HVAC controls. ETAP claimed that the switch to the new wireless HVAC system shows a potential energy savings of approximately 272,000 kWh and 15,600 tlm per year with a total financial savings of \$45,000 a year after three years. In addition to the savings, the report also indicates a reduction of Green House Gas emission of roughly 202 MTCO₂ per year.

One of ETAP's wireless HVAC technologies, VigilantTMDARTTM, was recommended for the retrofit due to its additional HVAC advanced control system. Overall, DARTTM has a higher potential output due to its performance of handling Constant Air Volume (CAV) and Variable Air Volume (VAV). During ventilation and climate control, DARTTM operates using a network of wireless sensors which can monitor temperatures throughout a building and adjust the airflow accordingly. Compared to other ordinary retrofit, DARTTM optimizes its fan rotation cycle which is both cost and energy efficient. With the new HVAC installation, wireless control system can help modernize new ways of saving energy and lead Cal Poly Pomona to become a greener campus.



Career Center Green Certified!

By Grace Jaen

Congratulations to the Career Center for being the newest department at Cal Poly Pomona to become Green Certified! Dawn Finley, Job Location & Development Coordinator at the Career Center, stepped up as their representative and, along with the rest of the staff, dedicated their time and efforts to making their department more environmentally friendly. By making simple changes around the office like turning off unattended computer monitors and making recycling bins available in all common areas, Dawn Finley and her co-workers was able to successfully finish the Green Space program and received the highest certification level! But what is Green Space and how do I become certified? Green Space is a simple energy assessment and certification program for buildings on campus. The goal is to award departments and offices with a certification rating and recognize their outstanding sustainability efforts to lower their environmental impact. The Green Space program identifies a set of conditions and actions – some optional and some required – that departments should implement to improve sustainable practices. Essentially, a do-it-yourself audit! All levels of certification are based on a point system and are valid for 2 years. They include the following (from highest to lowest):

Green (Prerequisites and 40+ points)

Silver (Prerequisites and 35+ points)

Bronze (Prerequisites and 30+ points)

And it's so easy to get started! Just go to the Green Campus website at www.greencampuscpp.org/greenspace.htm to begin the first steps by having a representative from your department or office submit an application online. And shortly after submitting your application one of the Green Campus interns will be in contact with your department to discuss the next steps. If you want to find out more about the Green Space program simply visit www.greencampuscpp.org/greenspace.htm


Engage our Energy Future

By Grace Jaen


Did you know Southern California Edison, a subsidiary of one of the largest electric utilities company in California, has dozens of environmentally friendly programs and rebates that help you save money, while reducing your carbon footprint? These changes can be as simple as replacing your old incandescent light bulbs with new CFLs, which use up to 75% less energy than incandescent bulbs and last up to 10 times as long. SCE believes saving energy is an important part of our future. Which is why Green Campus and the Green Team are helping SCE host Engage our Energy Future, a fun, educational event where representatives from all three organizations will have exciting activities for students to participate in while learning about the importance of energy efficiency. Engage our Energy Future will be held Monday January 23 at 10 am at University Park, outside the BSC. There you will be given the opportunity to voice your opinions on energy conservation, and discuss with SCE staff which programs you can become a part of in order to save money and help reduce your environmental impact. So what's stopping you?! Come join Southern California Edison, the Green Team and Green Campus on January 23rd, 10 am at University Park for Engage Our Energy Future!!




Sustainability Pledge Sheet



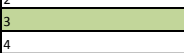
BUCK THE JUICE
SUSTAINABILITY CAMPAIGN



EDISON
SUSTAINABILITY CAMPAIGN



Pacific Gas and Electric Company



SDGE

"I pledge to sustain Cal Poly Pomona's climate commitment and sustainability efforts. This year, I will commit to at least 3 new ways to reduce my own environmental impact."

| Name | Email | I pledge to take shorter showers by 2 minutes | I pledge to turn the water off when I brush my teeth or shave | I pledge to turn off the lights when I leave a room. | I pledge to plug appliances into power strips and turn off when not in use. | I pledge to replace one incandescent light bulb with a CFL | I pledge to activate power save features on my computer so it "sleeps" when I'm not using it. | I pledge to wash ____ loads of laundry in cold water each month. | I pledge to dry ____ loads of laundry each month on a clothesline or drying rack instead of a clothes dryer. | Volunteer with Green Campus | Free monthly Newsletter subscription |
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NOTE: Pledging to all actions can potentially save up to \$1,000, 10,500 gallons of water, 3,500 kWh of energy, and 14,000 lbs CO2 emissions annually! (Source: EPA)

New Sustainability Pledge!

The Sustainability Pledge has been updated once more! An essential component of Cal Poly's Green Campus program, the sustainability pledge promotes sustainable behavior getting pledges to commit to a year of more efficient living. Available on our website and at our tabling events, come and join Green Campus in advancing to a more sustainable future!

<http://www.greencampuscpp.org/sustainabilitypledge.htm>

Wi-Fi Thermostats

By Sony Bui

Recently, the Green Campus team has been approved by the CSSA Greenovation to start implementing the WiFi Thermostats Project. With this approval, the team will begin retrofitting the Facilities and Management buildings with the new wireless thermostats. The objective of this project is to compare the energy savings of the programmable wireless thermostats with the ordinary thermostats. While ordinary manual control thermostats require the time and the effort to be individually maintained, wireless thermostats can easily be managed through a central unit which remotely monitors and controls all thermostat units within the network. These individual thermostat units can be programmed to automatically update for optimum energy savings, resulting in systems running at full capacity during the busiest times and running at lower capacity during nighttime or weekends. With this installation, technicians can simply flip a switch to adjust the changes for the thermostats without being on campus.

Between January and February 2012, the Green Campus team will be working with the staffs from the Facilities and Management to collect energy data from the two different thermostats. If the wireless thermostat proves to be the next innovative technology capable of reducing the usage of energy and the maintenance cost, a campus-wide installation project could be implemented in the future. Overall, Cal Poly Pomona University would greatly reduce the amount of GHG emission, save thousands of dollars per year, and also set an example for other CSUs to follow.



Green Campus By the Numbers - A Summary of 2011

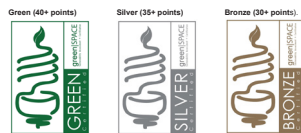
| | Actual Savings | Potential Savings |
|---------------|----------------|-------------------|
| ENERGY | 22, 492 kWh | 3,890,539 kWh |
| WATER | 17,600 gal | 319,010 |
| COST | \$3,115 | \$527,695 |

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

WHAT IS GREEN SPACE?

Green Space is a sustainability assessment and certification program for departments and offices on the Cal Poly Pomona campus. The goal is to award departments and offices with a green certification rating and recognize their outstanding sustainability efforts to lower their environmental impact. The Green Space program identifies a set of conditions and actions – some optional and some required – that departments and offices should implement to improve sustainable practices. Essentially, a do-it-yourself audit.

All levels of certification are based on a point system and are valid for 2 years. They include the following (from highest to lowest):



THE APPLICATION

1) Application A representative from the department or office fills out and submits the Green Space application through the Green Campus website. Then, Green Campus Project Coordinators will set up a meeting to answer questions and go over the next steps on getting green certified.

2) Prerequisites There are three prerequisites that must be completed by each department or office before proceeding to the checklist that will make your office Green Space eligible.

I. Choose a Green Delegate: The Green Delegate represents the office/department throughout the certification process and meets regularly with the department/office to discuss green goals, announce certification progress, offer training, etc.

II. Take the Green 101 Quiz: At least 75% of the department or office staff must review and/or see the "Green 101" presentation and take the online quiz.

III. Sign the Pledge: At least 75% of the department or office staff must pledge to go green by participating in the online Sustainability Pledge.

3) Assessment + Checklist Upon completion of the prerequisites, the checklist is used to perform an assessment of the office.

I. Office Assessment: There are seven areas of sustainable office practices that are taken into consideration. These include:

1) Energy 2) Waste 3) Transportation 4) Purchasing 5) Food + Dining 6) Networking + Awareness 7) Innovation.

II. Using the Checklist: While assessing the office, use the checklist to document each point that is pursued and provide a brief description explaining how your office has complied with the requirement. Once the assessment checklist is complete, the forms are submitted online and interns will confirm that it was received.

4) Verification A team of student Green Campus Project Coordinators will schedule a time to come to the office to verify your assessment and application. At that time, a short audit and review meeting will be scheduled where additional information or minor modifications may be requested.

5) Certification Based on the total number of points the department or office earns from the Assessment, you will be awarded a level of certification. The department or office will be widely recognized across campus for having achieved this certification, featured in the monthly newsletter and are also issued a Green Space certificate of achievement based on the level of certification. Certification is good for 2 years; criteria and other requirements are subject to change.

SPOTLIGHT: ENERGY SERVICES UNIT

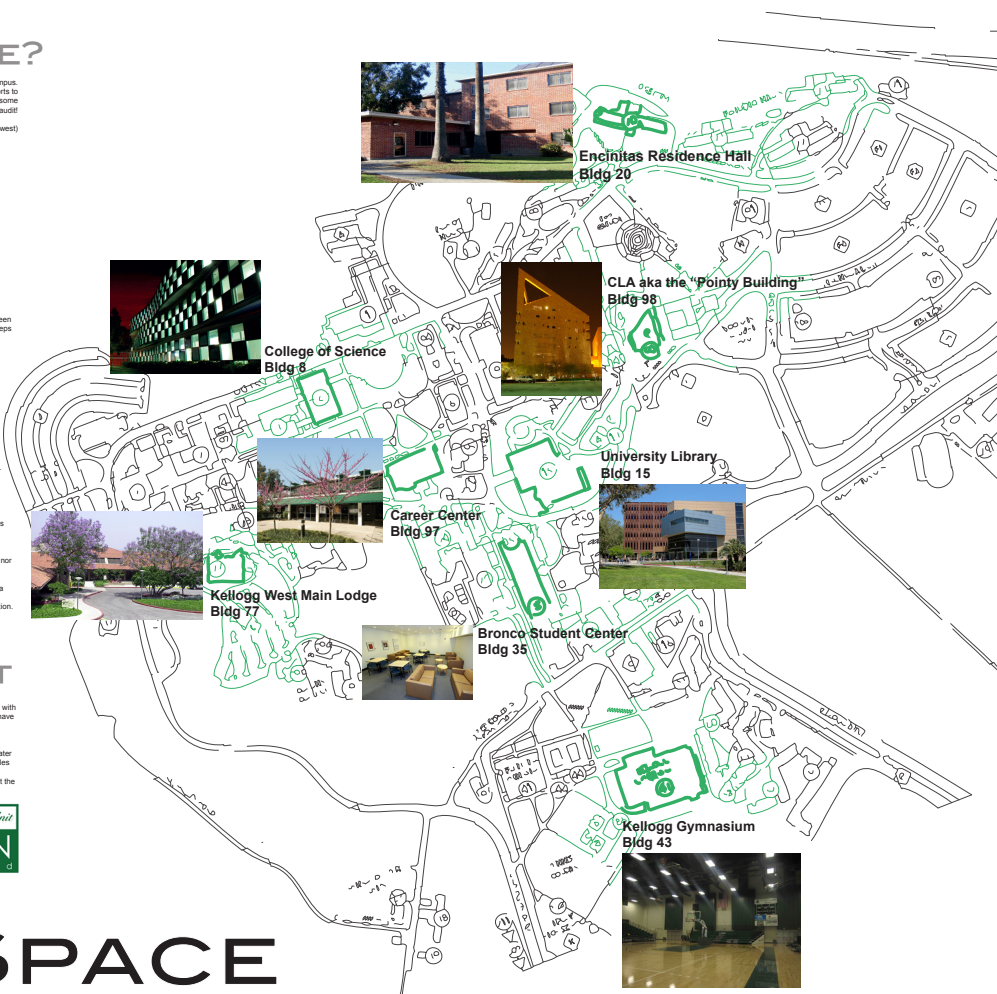
The energy services unit was the first office to be green certified through the Green Space program. The office began their application in the spring of 2011. A great factor in their success with the program was their Green Delegate who worked closely with the Green Campus interns throughout the process. By keeping the interns updated on the office's progress, they were able to have their questions answered and get quick feedback on their application. Another crucial part in their green certification was taking advantage of the "innovation points" section of the checklist. Innovation points rewards the office for innovative ideas that save energy or water that is not covered on the checklist. The Energy Services Unit was awarded a few extra points through the innovation points, going above and beyond in their efforts to make the office more sustainable. Their first idea was starting a water club to reduce the amount of plastic bottles used in the office. The central office was equipped Sparklets refillable 5 gallon bottles available for any office member signed up with the club. Also qualifying for an innovation point was their second idea, placing reminder stickers to turn off monitors at every desk. In addition to completing the overall checklist, the innovation points brought the energy services unit to a total of 45 points.

NEXT STEPS

We, at the Cal Poly Pomona campus, are looking forward to getting all offices on our campus Green Certified. With every office certified, the process is refined and continues to change in order to accommodate the needs of every office in order for completion of the program. Probably the most difficult aspect of the Green Space do-it-yourself audit is simply getting offices invested in completing their certification. Hopefully, as more offices jump on board, it just gives more of an incentive (and competitive spirit) for everyone else to participate.



CAL POLY POMONA'S GREEN SPACE



Sneak Peek: 2012 Summit at UC Berkeley

By Crystal Huang

In just a few weeks, the Green Campus interns will be attending the annual Energy Efficiency Summit at UC Berkeley! Events featured include training sessions and networking opportunities, as well as speakers such as the Director of Global Facilities for Adobe, Michael Bangs. This 2012 Summit will leave attendees with a better understanding and deeper knowledge of current energy efficiency issues and possible next steps. Also featured during the Summit is a poster competition between the Green Campuses, highlighting their favorite project from the past year. This year, the Pomona campus designed a poster to detail the Green Space office audit project. On the track to get the entire campus certified, the Poster competition gives each campus a chance to show off how much they have done and also receive some feedback. Each poster is also judged on design and content. Hopeful, the Cal Poly Pomona interns are excited to attend the three-day summit.

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