



the GREEN @ UC Irvine

Save the Date:

- 7/18/08 Sustainability Committee Meeting
- 7/31/08—8/3/08 UC/CSU/CCC Sustainability Conference held at Cal Poly San Luis Obispo

Points of Interest:

- Campus Energy Manager, Paul Wingco, used 23 watt Green Campus CFLs to replace 561 150 watt light bulbs in the underground utility tunnels at UCI. Assuming 6 hours of use daily, this will save 156,031 kWh of energy per year!

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May 2008—June 2008

Spring Quarter Lab Competition

By Samantha Kao

Congratulations to the researchers in Professors Corn and Borovik's laboratories as the winners of our third fume hood competition!

Professor Corn's researchers exemplified energy efficiency in lab behavior by maintaining the lowest average inches of sash opening and the highest average percentage of their closed fume hoods. The average number of inches for sash opening in Corn's labs was 1.1, showing a decrease of 2.7 inches from preliminary data. Corn's percentage for closed fume hoods was 66%, which was an increase of 52% from the preliminary data.

The other competition winners, Professor Borovik's researchers, showed a clear increase in energy efficient lab behavior by their reduction of sash opening. They began with an average sash opening of 7.9 inches and reduced 3.6 inches to 4.3 average inches of sash opening for unused fume hoods.

In evaluating the data, we noticed that Professor Holt's lab

seemed to be an outlier based on the sash height measurements we were able to record. For much of the competition, rooms were locked or under maintenance, preventing Green Campus from measuring fume hood sash heights at regular intervals and resulting in inconsistent data collection. The few readings we were able to make, in which sashes were left open, may not have accurately represented lab behavior and could have skewed energy-use data, resulting in negative savings. Because of these conditions, we calculated competition savings both with and without data from Holt's lab.

Excluding Professor Holt's lab, we are excited to note the significant overall savings upon the conclusion of our competition. Across labs, we found that there was an average reduction of 2.6 inches in sash height, meaning each hood saved approximately 1,184kWh and \$159.29 per year. Overall, competition energy savings totaled 100,681kWh per year, equivalent to \$13,554 and over



Award Luncheon for Lab Competition

80,000 lbs of CO₂ equivalent.

With the conclusion of our third fume hood competition, we would like to thank the Department of Environmental Health & Safety and Rama Singh for invaluable assistance in contacting researchers and providing necessary safety gear. We would also like to extend thanks to the following professors in the Physical Sciences whose labs participated in the competition: Professors Holt, Borovik, Corn, Lopez, Guan, Overman, Vanderwal, and Shea. The Green Campus Team would like to encourage all researchers in energy efficient behavior and we look forward to our next competition. See you next year!

Competition Results (Without Holt)

Professor	Inches Open (Preliminary)	Average Inches (Post-Competition)	Change in Inches	Savings in KiloWatts per Year per Hood	Savings in Dollars per Year per Hood	# of Fume hoods	Total Savings (kWh/year)	Total Savings (\$/year)
Corn	3.8	1.1	2.7	1,357	183	7	9499	1281
Borovik	7.9	4.3	3.6	1809	243	8	14472	1944
Lopez	13.1	9.5	3.6	1809	243	8	14472	1944
Guan	13.8	13.1	0.7	352	47	9	3168	423
Overman	9.5	7.3	2.2	1105	149	42	46410	6258
Vanderwal	13.3	8	5.3	2663	358	12	31956	4296
Shea	7.9	9.5	-1.6	-804	-108	24	-19296	-2592
Holt	0.7	7.9	-7.2	-3617	-487	28	-101276	-13636
Outlier								
Total Savings Overall							100,681	13,554





Samantha Kao



Andrew Sata



Max Broad

A Fond Farewell and a Warm Welcome

By Kong Sham

As the 2007-2008 school year is coming to an end, we will say "goodbye" to our graduating senior Samantha Kao. Samantha has taken great strides forward on the UCI Fume Hood Campaign and has been involved in many other projects. Samantha has helped UC Irvine's Green Campus a tremendous amount and will be dearly missed. Andrew Sata will also be leaving the Green Campus team. He will graduate mid-year in the 2008-2009 school year. Andrew has helped immensely with the LED Exit sign program, taken the lead on office auditing, and was

the official treasurer. His work has been greatly appreciated.

Though we are sad to lose Samantha and Andrew and wish them only the best, we are pleased to introduce our new intern, Max Broad who has just jumped on board.

Max will be a fourth year in the fall, majoring in Social Ecology with minors in both Global Sustainability and Environmental Analysis and Design. Influenced by his first environmentally conscious class E8, taken at UC Irvine, he has been interested in conservation and preserving the environment.

Max said, "I am glad to be part of an environmental

network, opening doors. Green Campus is a great opportunity to be involved on campus."

Prior to joining Green Campus, he assisted the city of Berkeley in putting together its Climate Action Plan in fall of '07 for Iclei, a non-profit organization focused on mitigating and adjusting to climate change.

Max will be a great addition to our already successful crew, by bringing additional experience and service action. We are looking forward to having him on board the UCI Green Campus Team.

"This exchange turned out to be one of our most successful CFL exchanges ever!"

By Alyssa Penacho

On Wednesday May 9, 2008 the UCI Green Campus Program held a CFL exchange in Palo Verde, one of the on campus housing communities for Graduate students. This exchange turned out to be one of our most successful CFL exchanges ever!

We set up our booth in a well traveled area of the Palo Verde housing community. Many of the graduate students were very

excited to hear that we were giving away CFLs, and wanted to know more about our program. All tolled, we were able to exchange a total of 127 CFLs! Assuming each 23 watt CFL was used to replace a 60 watt incandescent light bulb, and that each light bulb was used for 4 hours a day, a total of 6,861 kilowatt hours will be saved each year. That is a lot of energy savings!

This was our first time having a CFL exchange

with graduate students, and it was extremely successful. We believe the graduate students were more interested in using CFLs because they pay for their own electricity, as opposed to undergraduates who live in campus dormitories. Due to the high success of this exchange, we hope to have more CFL exchanges with UCI graduate students in the future.

Special thanks to Michael Lawler for helping to organize the event.

Who Killed the Electric Car? Green Campus Knows!

By Courtney Gill

On May 7, 2008, UC Irvine's Green Campus Program hosted a movie screening of "Who Killed the Electric Car?".

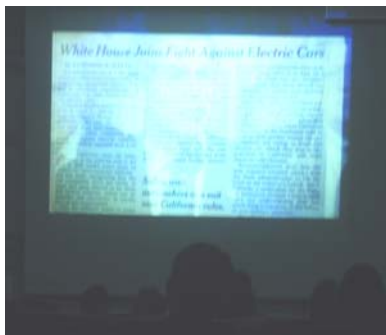
Green Campus club members requested that we screen this film to increase awareness about one of the

biggest setbacks to electric vehicle use. General Motors' EV-1 was a vehicle model that ran solely on electricity. However, all of the models were confiscated from their drivers and destroyed by GM. The riveting documentary provided an in depth look at corporate politics as well as U.S. dependence on oil.

We were thrilled to have 30 people in attendance at the screening. It was a great

event because the majority of students who participated in the event had not been involved in Green Campus events before. Several people expressed interest in becoming members of the club!

This educational program was able to reach out to students beyond the scope of energy conservation on campus and interest them in involvement in our organization.



Students watching "Who Killed the Electric Car?"

Anteater Award Recipient—Green Campus

By Samantha Kao

On May 28, the annual Anteater Awards ceremony for 2007-2008 took place to honor various UCI student organizations that have had a significant impact on the campus community. The Green Campus team's application won an award in the category for Outstanding Collaborative Program! Green Campus Interns Samantha Kao and Kong Sham were present to receive the plaque presented by ASUCI in recognition of the program's efforts.

This award commended Green Campus's partnership with UCI's Department of Environmental

Health & Safety, a relationship which has significantly strengthened the efforts of the fume hood campaign. Based on the EH&S department's support by means of lab gear, contact information, and access to laboratories, Green Campus has been able to effectively coordinate the fume hood campaign for the past year and a half, resulting in significant reduction of energy use in campus laboratory facilities. Green Campus was recognized particularly for the savings achieved during the fume hood competition during Fall 2007.

As stated in Green Campus's application, "Since the project's inception in Fall of 2005, Green Campus has consistently worked with UCI's

Department of Environmental Health and Safety (EH&S) and its safety coordinators within the targeted laboratories...

Having the support of EH&S increases credibility of the Green Campus Program as we continue our work in the laboratories."

Green Campus is genuinely grateful for the acknowledgement of this key partnership and the invaluable collaboration with the Department of Environmental Health & Safety. As an Anteater Award winner in the previous year, Green Campus had also won in the category



2007-2008 Anteater Award Plaque

for Best Educational Program with respect to the Shut the Sash campaign. We are grateful for the continual support in our energy efficiency efforts and hope that the campus community will expand such partnerships.

Arroyo Vista CFL Exchange

By Max Broad

The first ever Arroyo Vista CFL Exchange was held on Wednesday, May 14. Green Campus members set up a booth next to the AV bus stop and let the residents flock to the free light bulbs.

The promotion was designed to encourage energy conservation. A compact fluorescent light bulb uses at least 2/3 less energy than the filament driven incandescent light bulb that most AV residents were familiar with growing up. As technology improves, CFLs are being established not only as a beacon of energy efficiency, but also as a provider of quality light, in contrast to the crude earlier models.

The light bulbs we handed out used only 23 watts of electricity, but had the equivalent output of a 100 watt incandescent bulb. In total, 63 new CFLs were given to the

AV community. Assuming that each CFL replaced a 60 watt incandescent bulb and was used for 4 hours a day, a whopping total of 3403 kilowatt hours was saved by the Green Campus efforts!

Leading the way, first year transfer student, Brett Weir, brought in 20 light bulbs to be replaced in his building. This upgrade alone will save approximately 1000 kilowatt hours. Go Brett!

The AV Exchange was part of a Green Campus effort to encourage energy conservation and promote awareness at UCI. CFLs from Green Campus can be spotted throughout campus communities. Included this



year in the campaign were CFL Exchanges in Mesa Court, Middle Earth, and Palo Verde. Be sure to keep an eye out for other Green Campus efforts around UCI!

"An Energy Proposal"

This photo from the AV CFL exchange made an appearance on the Green Campus Wall of Fame!



The Green Campus Program

The Alliance to Save Energy's "Green Campus Program" is funded by the California ratepayers under the auspices of the California Public Utilities Commission. Strategic Energy Innovations is a Sub-contractor of the Green Campus Program.



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The Green U

Project Title	Time Period (May-June, 2008)	Estimated Energy Savings (kWh/yr)	Money Saved	Lbs. of CO ₂ Avoided
Palo Verde CFL Exchange	May 9	6,861 kWh	\$567.69	5,523.1 lbs of CO ₂
Arroyo Vista CFL Exchange	May 14	3,403 kWh	\$281.61	2,739.4 lbs of CO ₂
Spring Quarter Lab Competition	April 24—May 22	100,681 kWh	\$13,554.00	81,048.2 lbs of CO ₂
CFLs in UCI Maintenance Tunnels	June	156,031 kWh	\$13,160.27	125,605.0 lbs of CO ₂
Total for May and June:		266,976 kWh	\$27,563.57	214,915.7 lbs of CO₂

2007-2008 in a Snap Shot:

