

2006-08 Energy Efficiency Portfolio Monthly Report Narrative

Program Implementer Name: Alliance to Save Energy
Program Name: Green Campus Program
(UC/CSU/IOU Energy Efficiency Partnership)
Program Month: December 2008

1. Program description

The Alliance to Save Energy's Green Campus Program is a student-oriented education and outreach program that fosters environmental stewardship by raising awareness about the relationship between energy and the environment on University of California and California State University campuses. Through its activities, the Green Campus Program seeks measurable energy savings on the campuses which it serves.

The Green Campus Program is implemented by the Alliance to Save Energy, its subcontractors (hereafter referred to collectively as "Alliance Green Campus team members"), and paid student interns ("Green Campus interns").

The Alliance to Save Energy operates on nine campuses through the UC/CSU/IOU Energy Efficiency Partnership's Training and Education budget: Humboldt State University, CSU Chico, Cal Poly San Luis Obispo, UC Berkeley, UC Santa Cruz, UC Merced, UC San Diego, and San Diego State University. In addition, funds from the UC/CSU/IOU Energy Efficiency Partnership's Training and Education budget also supplement programs at UC Santa Barbara, CSU San Bernardino, Cal Poly Pomona and UC Irvine. These campuses are located in the SCE, SCG, SDG&E, and PG&E service territories.

Administrative activities (describe)

Green Campus team members conducted weekly check-in conference calls with interns at all Green Campus schools in order to discuss ongoing projects and track action items.

2009 Green Campus Energy Efficiency Summit

This month, a large amount of Alliance staff time was spent organizing logistics for the Green Campus Energy Efficiency Summit, which will be held January 24 – 26 in Irvine. The final invitation was sent out on December 12. During an in-person half day meeting on December 18, the Direct Implementation Team also finalized the process agenda for the event (**attached**), which follows the following framework:

- Saturday, January 24th: Informal Intern welcome and introductions, over pizza.
- Sunday, January 25th: Intern training day and evening career panel and welcome reception for Interns and stakeholders.
- Monday, January 26th: Best practices showcase, project planning, and keynote address by CA Public Utilities Commissioner Timothy Simon at the UC Irvine campus.

CPUC WE&T Meeting

On December 3, Project Manager Renee Lafrenz, Senior Program Associate Jennifer Alvarez and Program Associate Peter Jenkins attended the first California Workforce Education & Training informational meeting at the CPUC in San Francisco. Over 50 colleagues joined them for this meeting which was facilitated by Keri Bolding and Lisa Paulo from the CPUC; these

colleagues included Carlos Hernandez and Cheryl Wynn from SCE and Charles Segerstrom from PG&E. This meeting was meant to convene the group and assess next steps in terms of forming an ongoing task force. The Alliance has confirmed membership in this group.

Pacific Energy Center Seminar – Energy Careers

On December 4, Project Manager Renee Lafrenz attended a seminar at the Pacific Energy Center entitled “Energy Careers.” During the course, the facilitator outlined careers and the skills necessary to penetrate the field. She was also joined by colleagues from PG&E and Sustainable Spaces to speak about their initiatives and related new jobs.

Direct implementation activities (describe)

NOTE: Implementation activities were minimal this month due to finals and the start of winter break.

Intern Implementation Budget

See ***attached December 2008 Intern Implementation Budget Summary*** to gauge the status of the implementation budgets for each Green Campus.

CFL Exchanges

2007-08 Academic Year to Date (i.e., since August 1, 2007), Green Campus has exchanged a total of **16,228 CFLs**. During December, Green Campus interns in the SCE, PGE, and SDGE territories exchanged a total of **256 CFLs provided by SCE**. December CFL exchanges break down as follows:

CFLs Provided by SCE

SCE – 62
PGE – 194
SDGE – 0

CFLs Provided by Others

SCE – 0
PGE – 0
SDGE – 0

See ***attached December 2008 CFL Exchange Summary*** for details, including bulb wattage and origin. SCE Program Manager Carlos Hernandez instructed Green Campus that outstanding CFLs from 2008 can be exchanged in January 2009, at which time we will report these numbers.

CSU Chico

Energy Reduction Competition

This month, Interns began preparing for next semester’s dorm energy reduction competitions. Interns met with the Residential Community Coordinator for Shasta and Lassen Halls to discuss scheduling a month-long competition between the two dorms early spring semester (these two dorms have similar carbon(?) footprints and populations, as well as real-time energy feedback

systems). In January, Interns expect to set a timeline for the competition and begin outreach efforts to prepare residents.

As part of their efforts, Interns spoke with the Residential Community Coordinator (RCC) for Whitney Hall to discuss holding a ‘Do It In the Dark’ game/information night to garner resident interest in energy efficiency and participating in a month-long dorm energy reduction competition (the dorm will compete against its own baseline electrical energy consumption). The RCC was supportive of holding the game/information night and directed Interns to work with the dorm’s Environmental Ambassador to schedule and prepare the event. In January, Interns will continue working on this effort and expect to hold the competitions in February 2009.

Also this month, Interns accessed meter data from Shasta and Lassen Halls to calculate energy savings based on their dorm energy reduction competition in November 2008 (see November 2008 monthly report for background on the competition). Below are the savings results for the competition held November 3rd – 7th. Energy savings are based on each building’s energy performance during the week of the competition compared to its performance the week prior to the competition (October 27 – 31st).

Dorm	Week before competition	Week of competition	Savings	% Reduction in Energy Use
Shasta Hall	2,304 kWh	1,750 kWh	554 kWh	24%
Lassen Hall	2,150 kWh	1,847 kWh	303 kWh	14%
Total savings			857 kWh	

Sustainability House

This month, Interns continued their efforts to improve recruitment of sustainability-minded residents into the Sustainability House (see November 2008 Monthly report for background on this project). Interns developed text to be uploaded to the CSU Chico Honors Program web page describing the Sustainability House, as well as information to be added to the Honors residential application (**see Chico SH Info, attached**). Interns also developed an informational sheet, to be deployed to incoming residents during freshman orientation events (**see Chico SH Fact Sheet, attached**).

In January, Interns will meet with the Honors Program Administrative Support Coordinator Barbara Brautigam to discuss the material. Interns expect the material to be approved by Ms. Brautigam’s supervisor (Director of University Housing and Food Services John Mahoney) before updates to the Honors Program web page and application are made. Also in January, Interns will update the Green Campus website with more information for Honors students on how to apply to live in the Sustainability House.

Vending Miser Project

This month, Interns installed watt-meters on one vending machine in Langdon Hall and one machine in the student union to obtain energy consumption figures prior to the installation of VENDING MISERS (see November 2008 Monthly report for background on this project):

Vending Machine Energy Use Assessment Results -

1. Siskiyou Hall

Date conducted: November 15, 11AM – November 22, 1PM (7 days, 2 hours)

Watts: 1472

kWh: 94.8

Cost: \$ 13.28

2. Langdon Hall (Pepsi)
Date: December 1, 11AM – December 8, 11AM
Watts: 45w, Max: 823, Min 43
KWH: 18.27
Cost: \$2.56

3. Butte Hall
Date: December 2, 10:30AM – December 9, 12:15PM
Watts: 86, Max: 6540w, Min: 0w
KWH: 69.7
Costs: \$9.76, Monthly Avg: \$41.4

Also this month, Interns spoke with Teri Randolph in the Institute for Sustainable Development regarding proper procedure to access the Green Campus account to withdraw funds to purchase VENDING MISERS. In January, Interns will meet with Ms. Randolph to complete the necessary paperwork.

Greeks Go Green

This month, for-credit Interns involved with planning the Greeks Go Green Project developed a project summary/evaluation to describe their work on the project in the fall semester (**see Chico Greeks Evaluation, attached**). In December, the interns presented the project before the Greek Councils and successfully formed a committee of individuals in the Council who are interested in supporting the project. In the spring semester, Interns will begin implementation.

Humboldt State

HSU CFL Distribution in December 2008

Event	Watts	Source	Amt. distributed
December Class Presentations	23	SCE	131

Stadium Lighting Project

See October 2008 and November 2008 reports for more information about this project. On December 18th, Director of Plant Operations Tim Moxon joined Interns for a conference call with Project Manager with Musco Lighting Bob Crookham to discuss the company's proposal to supply energy efficient stadium lighting for the Redwood Bowl. Mr. Moxon continued drafting a project proposal to put out to bid to local electrical contractors (Neeper Electric and O&M Electric). Mr. Moxon expects to launch the bid in the next month and to select a contractor by early spring semester.

Campus Outreach

In December, Interns hosted four class presentations on the Green Campus Program and campus energy efficiency efforts. During these events, Interns distributed a total of **131 CFLs** (provide by SCE).

Also this month, Interns completed an evaluation on their tabling efforts in the fall semester (**see *HSU Tabling Evaluation, attached***). Interns will continue similar tabling activities in the spring semester.

Energy Audits

This month, Interns completed an evaluation of the fall semester energy audit project. In the course of four departmental energy audits, Interns identified and recommended measures that, if implemented, could save the offices a total of **42,200 kWh a year (see *HSU Energy Audit Evaluation, attached*)**.

Dining Hall Ventilation Control Project

By the beginning of December, Housing and Dining Services had completed installation and calibration of a demand control ventilation (DCV) system for the four hoods in the HSU Jolly Giant dining facility. Interns initiated this project in 2007 following a meeting with Richard Young, Director of Education for the Food Service Technology Center (www.fishnick.com), to discuss the University's dining facilities and opportunities for energy efficiency measures. Following meetings with Richard Carlson, Associate Director of Housing Facility Services, Interns scheduled a walk-through audit of the Jolly Giant dining facility with Mr. Young on October 8th, 2007. Among other findings, Mr. Young recommended the installation of a demand-ventilation control package to manage ventilation energy consumption. **See *HSU Dining Report, attached***.

In November 2007, Interns met with Aaron Klemm (CSU Energy Program Manager at the time) and Michael Dean of CulinAire Systems (a manufacturer of ventilation hood control systems). Mr. Klemm agreed to work with Green Campus and Housing Facility Services to deliver the \$0.24/ saved kWh rebate offered by the UC/CSU/IOU Partnership for the installation of the DCV system. Mr. Dean provided the Interns with a draft energy analysis report for the CulinAire control system, which they shared with Mr. Carlson to receive Housing Facility Services commitment for the project. On January 23rd, 2008 Mr. Carlson submitted to Mr. Klemm a Partnership rebate application for the DCV system. **See *HSU Dining Rebate Application, attached***.

Due to the success of this project, Mr. Young requested Intern Sarah Schneider join him in presenting on the project at the UC/CSU/CCC Sustainability Conference, July 31 – August 3rd 2008 at Cal Poly SLO.

Below are the estimated savings for the project based on the calculations included in the rebate application:

TOTAL ENERGY AND COST SAVINGS

Humboldt State University

Granite Avenue

Arcata, CA

Kitchen Exhaust Hoods, Higher Education

Dec-06-07

Full Speed Fan Energy

60,144 kWh/yr

DVC Fan Energy

21,672 kWh/yr

Peak Demand Reduction	6.87	kW
Fan Energy Reduction	38,472	kWh/yr
Percentage Reduction	64%	
Electricity Cost Per kWh	0.1400	\$/kWh
Full Speed Fan Energy Cost	\$8,420	/yr
DVC Fan Energy Cost	\$3,034	/yr
Fan Energy Cost Savings:	\$5,386	/yr
Heating Energy Savings	2,326	therms/yr
Heating Energy Unit Cost	\$1.0900	\$/therm
Heating Cost Savings:	\$2,536	/yr
Cooling Peak Demand Reduction	0.00	kW
Cooling Energy Savings	0	kWh/yr
Cooling Energy Unit Cost	\$0.1400	\$/kWh
Cooling Cost Savings:	\$0	/yr
Combined H&C Cost Savings	\$2,536	
Total Energy Cost Savings:	\$7,922	/yr
Total Electric Energy Savings	38,472	kWh/yr
Total Peak Demand Savings	6.87	kW
Total Gas Savings	2,326	therms/yr

UC Berkeley

Fall "Shut the Sash" Fume Hood Competition

This month, the Green Campus team concluded the fall "Shut the Sash" fume hood competition from November 7-December 7. Interns designed fliers and posters to demonstrate the energy intensity of lab fume hoods, which can be equivalent to the annual energy usage of three households. If occupants achieve a total energy savings goal of 5% or 8%, the whole building will be rewarded a fruit and cheese, or a fruit, cheese, and wine party respectively (NOTE: funding for this event has been provided by a grant through Bears Breaking Boundaries).

Green Campus interns have received building energy data and are currently analyzing results (to be reported in the January 2009 report). During the winter break, Interns began developing plans for the spring installment of the program.

Vending Misers

This fall, the Green Campus team continued monitoring the vending misers on machines throughout campus. Vending misers are occupancy sensor devices that power down machines in low traffic areas. The devices regulate the internal temperature of the machine to keep the drinks cold, and power on the machine when occupants are close by. Vending misers have been installed in four buildings, Soda, Kroeber, Cory, and Davis Halls. The team continues to work closely with the Associated Students of the University of California (ASUC), Coca-Cola

Bottling, and USA Technologies. Over the course of the winter break, interns plan to map out where to install additional misers in advance of their spring meeting with Tom Spivey of ASUC and Coca-Cola to discuss ramping up the program.

BS@C URAP Campus Equipment Inventory

Last month, Green Campus interns began working with the Building Sustainability at Cal Undergraduate Research Apprenticeship Program (BS@C - URAP) interns to perform a T-12, exit sign, appliance, and CRT monitor inventory of all campus buildings, starting with the College of Natural Resources. This inventory will directly assist UC Berkeley's strategic energy plan in identifying where changes can be implemented on campus to reduce energy usage through lighting retrofits. Each T-12 identified in this inventory will ultimately be replaced by the more energy efficient T-8 fluorescent lamps contributing to reduced energy costs and greenhouse gas emissions.

This month, interns assisted BS@C coordinators hire new URAP interns, and will collaborate closely with designing the T-12 inventory to be conducted next semester.

UC Merced

LED Tube Lighting

This month, Interns met with stakeholder Jim Genes (Special Assistant to the Vice Chancellor) and Yaasha Saaba (Student Body President) regarding a \$500 grant available through Associated Students to support student awareness campaigns in sustainability on campus. Interns discussed a proposal to use the \$500 for LED tube lighting outreach and study. For the study, Interns propose to install LED tube lights in the overhead fixtures of a study room that has the same floor plan as a study room lit by fluorescent fixtures. Interns will survey students leaving the test rooms to analyze their perception of each room's light quality. Following the survey, Interns will inform students about LEDs and their benefits in terms of energy efficiency. The grant proposal will be submitted with the January 2009 monthly report.

Energy Audits

This month, Interns updated Alliance staff and involved campus stakeholders about the progress of the project (***see attached***). The assessed the recently installed academic portables (19 total) and determined that they occupy 13,000 square feet of land and consume approximately 7,700kWh during the span of a week and a half. This amounts to approximately 40 kWh per modular per day.

Green Campus hopes to obtain more meter data to get a stronger estimation of portable energy consumption. The portables are not linked to the Central Plant's automated energy management system and Green Campus is currently in conversation with Energy Manager John Elliot to determine the feasibility of linking the portables into the system so to give Central Plant greater control over energy consumption. Green Campus has also been trying to find a way to hook up the heating and cooling systems to a watt meter to monitor when they turn on and off.

In the meantime, the team has distributed behavioral surveys to occupants for additional data. In January Interns will continue in their efforts to calculate energy consumption and develop energy efficiency measures for the portables.

Laboratory Fume Hood 'Napping' Project

This month, Interns met with Energy Manager John Elliot to discuss expanding the 'Fume hood Napping' campaign, which entails identifying unused or minimally used fume hoods in the campus laboratories to be taken off-line (see May 2008 monthly report for more information on this project). Mr. Elliot and Interns discussed a targeted effort to reach fume hoods in the instructional laboratories on campus in order to take them off-line over the winter holiday. Initial counts indicate that 20-24 fume hoods could be taken off-line over the holiday break. Although Mr. Elliot had indicated that the operation could take place as early as December 18th, he learned this month that a specific process and administrative sign-off needs to take place before a large-scale effort can take place to take fume-hoods off-line. Therefore, Mr. Elliot and Interns agreed to develop the process for the fume-hood napping campaign in the spring 2009 semester to implement on fume hoods over the summer break.

UC Santa Cruz

Bi-level Outdoor Lighting

See November 2008 monthly report for background on this project. This month, Interns worked with Energy Manager Patrick Testoni to update savings estimates (***see UCSC Outdoor Lighting Savings Calculations, attached***). Interns and Energy Manager Patrick Testoni estimate that by retrofitting 137 existing outdoor lighting fixtures with LED fixtures, the University will save approximately **54,500 kWh** a year. By retrofitting the same 137 fixtures with bi-level LED fixtures, the University will save approximately **61,000 kWh** each year.

Mr. Testoni requested Green Campus support to expand this project to the entire campus – not just outdoor lighting, but also *building* lighting. He also requested that they collect data about potential locations for occupancy sensors. Interns expect to leverage for-credit interns to support this project by conducting lighting audits for the entire campus in 2009.

In January, Interns will work with Mr. Testoni to install data-loggers on selected outdoor luminaries to measure traffic to more accurately generate savings estimates and cost-effectiveness of utilizing bi-level LED lighting fixtures. Interns will also develop exterior lighting maps of those areas of campus previously unmapped and design an educational display for the LED fixtures. Energy Manager Patrick Testoni plans on having the lights installed by spring 2009 in the pilot areas. ***See UCSC Updated Outdoor Lighting SOW, attached***. He will also be joined by Intern Sean Higbee to present on this project as part of the 2009 Green Campus Energy Efficiency Summit.

Energy Audits – Family Student Housing

This month, Interns continued planning efforts for an energy audit and efficiency project in Family Student Housing. **See UCSC FSH SOW**, attached. Families occupying this complex are on fixed budgets and responsible for paying their own utility bills. During winter quarter 2009, Interns expect to begin implementing the following measures:

- Conduct energy audits of the units and develop recommendations to share with residents and Housing;
- Educate residents of PG&E low-income assistance programs and weatherization efforts, and facilitate entry into these programs;
- Install CFLs;
- Implement other zero to low cost energy efficiency measures and outreach to curb lighting and plug load energy consumption.

Also this month, Alliance staff and Interns held a phone meeting with Phil Furniss, PG&E Account Manager for UCSC, to discuss the Family Student Housing Project and PG&E assistance programs for which residents may be able to qualify. PG&E requires that one of its Energy Specialists inspect the Family Student Housing apartments for residents to qualify for the Energy Partners Program, which provides low-income residents free weatherization measures and energy-efficient appliances to reduce gas and electricity usage. Mr. Furniss agreed to support the project and to conduct an energy audit of the commercial systems and common areas of Family Student Housing at no cost to the university. Below is a summary of how Green Campus and PG&E expect collaborate on the project:

1. Interns will meet with Mr. Furniss and his staff in mid to late January 2009. This initial meeting will include a general energy audit training facilitated by Mr. Furniss for the Interns and 2-4 PG&E staff that will also participate in the project. This training may take place in a unit at Family Student Housing.
2. Interns and PG&E staff will focus their efforts on conducting outreach and energy audits for the residential units (NOTE: Audits will either be of a representative sampling of residential units or all of the residential units – this has yet to be determined). Meanwhile Mr. Furniss will conduct an audit of the buildings' hot water and common area lighting.
3. Green Campus will do the following:
 - Conduct outreach with families to schedule audits;
 - Obtain plug data from audits into a report and present that report back to families along with recommendations;
 - Educate families on PG&E assistance programs;
 - Conduct outreach to encourage the adoption of recommended measures;
 - Procure and install/implement low-cost measures (i.e., CFLs, power-strips, enable sleep modes on computers, etc);
 - Follow up with residents and track savings based on the adoption of measures.

In January Interns will follow up with Mr. Furniss and stakeholder Silas Snyder to schedule the meeting.

Cal Poly SLO

Cal Poly SLO CFL Distribution in November 2008

Event	Watts	Source	Amt. distributed
Tabling Event	23	SCE	63

Campus Outreach – Tabling Event

On December 4th, Interns hosted an information table in the quad of the Poly Canyon Village dorm complex. During this event, Interns spoke with approximately **80 campus residents** about the Green Campus Program, dorm energy savings tips, and opportunities to volunteer with the Program. Interns also distributed a total of **63 CFLs** during this event.

Greeks Go Green

See November 2008 monthly report for background information. This month, Interns conducted a walk-through energy audit of Sigma Kappa House to determine the building's electrical energy consumption and thereby develop energy efficiency recommendations and savings estimates. In the course of the walk-through, interns investigated lighting, appliances and other plug loads. Additionally, the president of the House committed to sharing current and historical energy and water bills with Interns.

In January Interns will compile data and develop savings estimates based on recommendations for energy efficiency measures and conservation. Interns will then present the report to residents in the Sigma Kappa House and plan efforts to implement the suggested measures.

Vending Miser Inventory

See November 2008 monthly report for savings estimates and inventory of vending machines on campus. This month, Interns followed up with stakeholders Dennis Elliot (Sustainability Manager) and Alan Cushman (Associate Director of Campus Dining) to get their feedback on the calculations and inventory and to request a count on the number of old VENDING MISERS that may have been re-installed to date. Due to end-of-quarter activity, Mr. Elliot and Mr. Cushman were unable to review the Interns' work before the end of the month. Interns will follow up with stakeholders in January to determine next steps and timeline for installation of VENDING MISERS on campus machines.

UC San Diego

IR/PS Energy Audit

Upon the request of Energy Manager John Dilliot and Melanie McCutchan, Green Campus Interns conducted an energy assessment for the International Relations and Pacific Studies (IR/PS) department on campus during spring and fall quarters. Surveyed areas included the library, study rooms, classrooms, language and computer labs, the Robinson auditorium, restrooms and the student lounge.

The team identified the following savings potential:

Potential Energy Savings per Month:

Energy Source	kWh	Cost	CO ₂ emitted (lbs)
Lighting	1,867.74	\$158.76	1,502.67
Computers	1,974.59	\$167.85	1,588.63
Miscellaneous	358.77	\$35.06	331.87
Total:	4,201.10	\$361.67	3,423.17

IR/PS can potentially save **\$4340** each year just by implementing the suggested changes in the Green Campus report (*see attached*).

Fumehood Competition

January 5 – February 6 Green Campus will be holding a "Shut the Sash" energy saving competition for the biology department labs at the Natural Sciences Building. The labs are challenged to close their sashes--the lowest average sash height will be awarded. Interns intend to track the metrics that this energy saving behavior will promote and report them in February.

San Diego State University

Greeks Going Green

During the fall 2008 semester, SDSU Green Campus Program initiated a dialogue with the campus Greek organizations to implement Greeks Going Green program (see November 2008 report for more information on the synthesis of this effort). In December, SDSU GCP intern Rob Ellsworth confirmed support from the SDSU Greek Councils (including USFC, NPHC, IFC, and Panhellenics) and established the Greeks Going Green Executive Board of approximately ten members. During spring quarter, the board will commence regular meetings to initiate energy competitions between residential Greek houses in an effort to reduce energy consumption.

2. Marketing activities (describe)

NOTE: Because of winter recesses, the Green Campuses will complete a double December/January newsletter during the next reporting period in order to inform their campus stakeholders about their current projects.

UC Berkeley

Green Career Panel

This month, the Green Campus team continued coordinating with Students for Responsible Business and Phi Beta Lambda Business fraternity to host a Green Career panel in the spring semester. Together, the three organizations plan to convene a diverse panel of energy and sustainability professionals. Potential speakers include Pacific Gas & Electric, the Environmental Protection Agency, Hewlett Packard, and other businesses supporting the green workforce. The event is tentatively planned to be held in mid-February.

"Green Living Workshops" Spring 2009 Welcome Week

This month, Green Campus Interns were invited to present a 20-minute workshop entitled "How to be Green" during Spring Welcome Week on Monday, January 19th. The event is hosted by the ASUC Office of the President's Department of Environmental Sustainability and Interns will be coordinating with the Residential Sustainability Education Coordinators (RSECs) to inform incoming freshmen about ways to live more sustainably and share upcoming projects plans. In addition, the team will be exchanging Compact Fluorescent Lamps (CFLs) provided by the Resource Solutions Group.

The Big Save: Stanford vs. Cal Residence Hall Energy Competition

This fall, Green Campus Interns from Stanford University and UC Berkeley took their rivalry off the sports field and into the residence halls. The 2-month long competition began on October 1 and continued through the end of November. Baselines were established using prior data from 2004-2007, and the winner will be determined using the highest per capita savings rate. Final savings results for the internal Blackout Battles competition and the "Big Save" competition will be determined in January due to the difficulty in accessing the data from Facilities.

In the meantime, Interns began developing publicity materials for the spring semester “Blackout Battles” energy competition between the residence halls. The competition is scheduled from February 1 – April 1, 2009.

Cal Poly SLO

This month, Intern Chad Worth was invited to go on the air to discuss winter energy efficiency and managing phantom loads on the nationally syndicated radio program "[On The House](#)". The show, which has over 1 million listeners, will air on January 3rd, 2009.

Humboldt State

Phantom Hunter Submission to Competitions

This month, Interns continued outreach efforts to gain votes for the energy audit video, *The Phantom Hunter*, in the National Wildlife Federation's "Campus Chillout" competition on GreenTube (<http://www.gogreentube.com/watch.php?v=NDq0NT11>). Interns worked with University Media Relations to post a short piece on the video and a link to view and vote on the video from Media Relations' main web page, Humboldt Now: <http://now.humboldt.edu/news/vote-for-hsus-phantom-hunter-video/>.

Voting ends February 1st 2009.

San Diego State

Green Campus Club Registered as Student Organization

In December, the Green Campus Club at SDSU met three times as an officially recognized as a student organization at SDSU (see December 2008 report for more information). During these meetings, Interns garnered support from an expanding volunteer base and conducted initial brainstorming and planning for spring 2009 projects. These (?) will begin with assisting team efforts in an energy competition in February between Chapultepec and University Towers.

3. Program performance/program status (describe)

- X Program is on target
- X Program is exceeding expectations
- Program is falling short of expectations

Note: The Alliance considers that the Green Campus Program is exceeding performance expectations in that it is meeting, and in many cases, surpassing the program deliverables; in addition, it is consistently producing new, creative and successful program activities.

4. Program achievements (for non-resource programs only)

Task 1: Convene a meeting with key campus administrators and staff to gauge interest in the Green Campus Program and to secure pledges of support.

UC Berkeley

Green Department Certification

This month, Green Campus Interns held a follow-up meeting with Sustainability Director Lisa McNeilly to continue plans for the Green Department certification standard. The team agreed to pilot the program in the HAAS School of Business, Health & Safety, and Residential Student Services Program buildings. Departments will earn points for sustainable attributes based on criteria the team puts together. Interns determined the following mandatory requirements:

- Each building must convene a “Green Team,” which would meet at least once a semester and develop a plan of action;
- Recycling bins are required on each floor;
- Offices must develop an individual behavior program and pledge system;
- Offices must use post consumer recycled paper.

Departments can also earn extra points for particularly innovative ideas of their own. The team will continue brainstorming energy efficient standards in the next few months.

UC Santa Cruz

On December 8th, Interns received a request from UCSC Sustainability Coordinator Aurora Winslade to provide summary information about their projects that may have bearing on the student involvement element of the campus’ Climate Action Plan. This Plan will be referenced by the entire campus, including the Chancellor and top administrators and used to develop programs, plans and allocate resources.

In order to take advantage of this opportunity, Interns submitted information about the following projects (***also see attached submission***):

- *Bilingual Food Service Worker Water Conservation Training*
- *CFL Exchanged Fall 2008*
- *Outdoor Lighting Retrofit Project*
- *Family Student Housing Energy Audits*
- *Green Campus ESLP Action Research Team (ART)*

Upon submitting this information, Ms. Winslade thanked the Interns and indicated she would be in touch with Green Campus in the winter quarter.

Task 3: Recruit and support Green Campus Interns at each campus in implementing program activities.

UC Santa Cruz

This month, Intern Lara White completed her Green Campus internship. Interns conducted outreach and advertisement efforts to recruit for the position vacated by Ms. White as well as for-credit internship positions. These efforts included:

- Advertising in the Green Campus Newsletter;
- Classroom announcements;
- Posting advertisements in the Career Center and with the Environmental Studies Internship office;
- Emailing announcement to residents in Family Student Housing.

By the end of the month, Interns had received a total of **six applications**. Interns will be accepting applications until January 11th, and hold interviews between January 12th and 16th.

Cal Poly SLO

Following a successful and productive tenure with Green Campus, Intern Chad Worth concluded his internship with the Program. This month, Interns conducted outreach and advertisement efforts to recruit for the position vacated by Mr. Worth (see November 2008 Monthly report for more information on the recruitment effort). By December 5th, Interns had received a total of **nine applications**. On December 15th, Interns and Alliance Staff held interviews for three applicants (NOTE: Due to Finals and other scheduling conflicts Interns resorted to scheduling the remaining interviews in January. By the end of this reporting period, no new Interns were hired to replace Mr. Worth.

UC Merced

This month, Interns completed outreach and advertisement efforts to recruit for two paid positions to commence in January. These efforts included:

- Advertising in Green Campus Newsletter;
- Recruiting during a tabling event;
- Classroom announcements;
- Career Services advertisements.

By December 12th, Interns had received a total of **eight applications**. On December 15th, Interns and Alliance staff interviewed four of the top candidates and chose Bron Davis (Mechanical Engineering student) and Diana Franklin (Biology student) to begin paid Internships in January.

Humboldt

Following a successful and productive tenure with Green Campus, Intern Chris Escarcega concluded his internship with the Program. This month, Interns completed outreach and advertisement efforts to recruit for the position vacated by Mr. Escarcega as well as another paid internship position (see November 2008 Monthly report for more information on the recruitment effort). On December 11th, Interns and Alliance staff interviewed **three applicants**, all of whom were for-credit interns with the Program fall semester. Alliance staff extended internships to Jon Mitscha (junior Environmental Science major) and Max Tanti (sophomore Environmental Resources Engineering major).

Chico

This month, Alliance staff interviewed and hired three students for positions recently vacated (this month Tami Kauz and Fumiko Motohashi completed their internships; last month Amelia Gulling completed her internship with the Program). The three students - Haley Gilmore, Jackie Mercure, and Mahmoud Saad - were for-credit interns with the Program during the fall semester and were selected by the outgoing Interns and continuing Intern Shannon York as optimal replacements. Alliance staff interviewed these candidates and confirmed their eligibility.

San Diego State

Recruitment is ongoing for the position vacated by Simarjeet Sahota in December 2008. By the end of this reporting period, the team had received two resumes and plan to review submitted materials on a rolling basis through January.

Task 7: Integrate energy efficiency and conservation into course curricula.

Campus/Course	Number of students
HSU Project-based Course	6
UC Merced Course	5
UC Berkeley Energy DeCal	30
UC Berkeley ER199	14
UC Santa Cruz	--
Chico Observe and Conserve	90
Chico For-credit Internships	7
TOTAL	154

This month, **5 Green Campus teams integrated energy efficiency into course curricula:** UC Berkeley (two courses), UC Merced (one course), Humboldt, UC Santa Cruz and Chico. These academic opportunities contribute to the workforce education and training efforts of the Green Campus Program to prepare the broader student body as the next generation of energy efficiency professionals. The first four campuses structured an entire course (or two in the case of UC Berkeley); Chico integrated projects into course assignments; finally, Chico also organized for credit volunteer internships. Note that the descriptions below are separated into the following three categories: Structured Entire Course, Integrated Course Assignments;, and For-Credit Internships.

Structured Entire Course:

UC Berkeley

Energy DeCal

Green Campus interns facilitated the 8th consecutive semester of the 2-unit Energy DeCal course in the fall semester. The course educates Cal students about the relationship between energy and the environment and how to make small changes in their lifestyle to reduce their energy consumption and carbon footprint. Last semester, the class featured popular guest speakers who informed students about cutting edge technologies and energy issues such as hydrogen fuel, consumer footprint, and sustainable living in an urban environment, took students on tours of campus solar panels and the green demonstration areas, performed a personal energy audit, and held debates and discussions on up and coming energy related

topics. About **30 students** were enrolled in the course with backgrounds ranging from political science to environmental science.

Interns closed out the semester with a Green Living at Cal tour of the Green Suite, and final quiz and celebration. Located in the Global Environment Theme House (GETH) in Berkeley's Foothill residence hall, the Green Suite features a suite of apartments which demonstrates sustainable living.

Interns plan to facilitate the course during the spring semester, with newer interns Morwenna Rowe and Lamia Mamoon taking a greater role in teaching the class. Course syllabus and meeting time/location will be determined by early next month.

ER199: Applications of Energy Efficiency and Conservation

The Building Sustainability at Cal (BS@C) program facilitated the 2nd semester of the *ER199: Applications of Energy Efficiency and Conservation* course this fall semester, providing Cal students with hands-on experience in assessing the energy usage and costs of campus buildings. The course was co-facilitated with Environmental Science 98/198 which concentrates on other sustainable aspects of building including water and waste. Both classes will focus on 6 buildings on campus. This semester Green Campus took on a more supportive role in facilitating the course, and will provide class organizers and students with energy audit training.

Students completed one large structural project ranging from foot candle assessments, lighting audits, or an appliance audit in their building, and one educational project such as tabling or bathroom newsletters. This month, ER 199 students submitted their final project reports and presented their building recommendations Building Managers on December 10th.

UC Merced

This month, students participating in the fall semester ES 199 course completed their work on the energy audit and sustainability brochure projects and submitted final papers to Interns. **See *UCM ES 199 Paper, attached***, from a student in the course. Interns reviewed the papers and recommended to the course's faculty sponsor that all students receive credit (i.e., a pass for the pass/no-pass course).

Also this month, Interns continued in their efforts to recruit for the spring semester ES 199 course. On December 4th, Interns hosted an informational table on campus, at which they gave away cups of coffee (donated by Starbucks) with cardboard cup sleeves upon which Interns had attached a flyer describing the course. Interns also handed out the ES 199 course syllabus. The team gave away a total of 45 coffees to students and some professors, who offered to announce the upcoming class in their classes and pass out the syllabus to interested students. By the end of the month, two students had officially enrolled in the course.

In January, Interns will follow up with the remaining eight interested individuals to ensure they register for the course.

UC Santa Cruz

Academic Integration – ESLP

This month, Interns continued their planning efforts to lead a class spring quarter as part of the Education for Sustainable Living Program (ESLP). Students will receive academic credit for their

participation in the peer-taught and project-based course with an emphasis in energy conservation.

Integrated Course Assignments:

Chico

Observe and Conserve

This month, students in UNIV 101 completed 'Observe and Conserve' reflection papers as part of ongoing Green Campus efforts to infuse energy efficiency in existing academic courses. For this assignment, students were directed to come up with a topic for their 'reflection papers', which required that they spend time observing a practice or operation on campus involving excessive energy consumption. For example, some students observed light usage at different times of the day in the library, while others visited computer labs to observe patterns of occupancy and energy consumption. Students then were responsible for writing a reflection paper on a solution for the problem that they saw. Interns plan to meet with the instructor in January to discuss methods for enhancing the assignment in the future.

For Credit Internships:

Chico State

On December 9th Interns hosted an informational table in Whitney Hall's dining room to recruit for academic internships with the Program. During this event, Interns signed up **seven students**. In January, Interns will follow up with the students to identify their interests in the Program and, if compatible, offer them an interview to become a for-credit intern.

Humboldt State

This month, Interns continued to oversee the efforts of **six students** receiving academic credit (2 – 3 units) completing their work on Green Campus projects through ENVS 482 in the areas of office energy auditing, hosting informational tables, and in marketing. To receive credit, Interns required each student to write a reflection paper on her/his experiences in the course. **See HSU ENVS 482 Reflection Paper, attached.** Interns reviewed the papers and wrote evaluations on each student's performance, which will be used by faculty advisor Dr. Richard Hansis in his determination to dole out academic credit to all the students. **See ENVS 482 Evaluations, attached.**

Also this month, Interns updated Statements of Work to include an evaluation of the ENVS 482 course and the fall semester energy audit seminar. **See HSU ENVS 482 and HSU Fall Seminar Evaluation, attached.**

5. **Changes in program emphasis, if any, from previous quarter** (e.g., new program elements, less or more emphasis on a particular delivery strategy, program elements discontinued, measure discontinued, budget changes, etc.).

None.

6. Changes to staffing and staff responsibilities, if any

None.

7. Changes to contracts, if any

None to report this month.

8. Changes to contractors and contractor responsibilities, if any

None to report this month.

9. Number of customer complaints received

There are no complaints to report.

10. Revisions to program theory and logic model, if any

No revision to program theory and logic model to report at this time.

Supporting Documentation:

1. Process Agenda
2. December 2008 Implementation Budget Summary
3. December 2008 CFL Exchange Summary
4. Chico SH Info
5. Chico SH Fact Sheet
6. Chico Greeks Evaluation
7. HSU Energy Audit Evaluation
8. HSU Dining Report
9. HSU Tabling Evaluation
10. HSU Dining Rebate Application
11. UCM Energy Audit Status Report
12. UCSC Outdoor Lighting Savings Calculations
13. UCSC Updated Outdoor Lighting SOW
14. UCSC FSH SOW
15. UCSD IR/PS Energy Audit Recommendations
16. UCSC Green Campus Submission
17. UCM ES 199 Paper
18. HSU ENVS 482 and HSU Fall Seminar Evaluation
19. ENVS 482 Evaluations
20. See HSU ENVS 482 Reflection Paper