STAKEHOLDER SPOTLIGHT
Winifred Kwofie

Winnie joined UCSF in December of 2008 as Associate Director of Strategic Facilities Management. She is a licensed civil engineer by profession and her role is to provide the required leadership for two units: the Facilities Engineering Service Group and the Recycling Department.

The Engineering Services Group is a team of professional engineers responsible for all design and construction reviews, to ensure that buildings and facilities are designed and constructed to meet Facilities Management's operations and maintenance needs.

The team also works with other units in Facilities to identify and implement projects to improve and optimize the energy performance of Facilities systems as needed.

The Recycling Department, on the other hand, is responsible for educating the entire UCSF campus about resource conservation and providing training and resources to meet our conservation goals.

Winnie’s goal for working with Green Campus is to help UCSF explore other ways and means to meet energy conservation goals.

Winnie has truly been a powerful, organized, and determined leader. Within the UCSF Conservation is Contagious campaign, she has mapped out projects for Green Campus interns to complete.

Our success on those projects is directly related to Winnie’s willingness to provide us with whatever valuable resources we need, including, most importantly, her valued time, confidence, and continued support.
Starting this month the UCSF Green Campus Team, in conjunction with Winifred Kwofie from UCSF Facilities Management, will continue its energy audits, this time focusing its attention on the buildings around the UCSF campus.

The team will audit buildings located across the campus, including Parnassus, Mt. Zion, and Mission Bay. The objective of the audits is to identify energy-consuming equipment and make cost benefit calculations and recommendations on items that are eligible for rebates. The three areas that the Green Campus Team will focus on include:

- Refrigerators,
- Cathode Ray Monitors (CRT’s),
- Recycling and Waste/Signage

The team will put most of its attention towards identifying older refrigerators, specifically refrigerators found in lab in non-lab spaces and making recommendations for possible upgrades. Preliminary findings show that upgrading old refrigerators to newer Energy Star refrigerators can save UCSF up to $100 annually for each refrigerator.

Other areas of improvement include taking an in depth look at the number of cathode ray tube monitors also known as CRT’s, that each building contains.

According to the Energy Star Website, the average LCD display consumes half the amount of energy as that of a CRT. An LCD monitor also generates about half the amount of heat of a CRT monitor, thus reducing the buildings cooling requirement.

The green team will also examine the phantom loads of appliances and electronics in each building, the term phantom load refers to the amount of energy consumed by electronic equipment when not in use (computer, TV, space heater, etc.). The use of power-strips with an on/off button is a great way to control phantom loads when these electronic devices are not in use.

Our last area of focus will be on recycling and waste reduction. We will be investigating whether or not building occupants are recycling and possible ways to increase recycling and reduce waste in the buildings.

After the pilot audit the team will set its sights on the following buildings: Pathology, Pediatrics, Cell & Tissue Biology, Cardiovascular and Ob/Gyn Repro. Audits will continue through the month of November. The Green Campus team hopes that the initial findings will help UCSF and students improve, energy efficiency and help replace wasteful appliances and equipment.

“The Big Chill,” UCSF Refrigerator Project

Our Green Campus Team is working with Winifred Kwofie, Associate Director of UCSF Strategic Facilities Management, to find outdated energy guzzling refrigerators across campus that can be replaced with more efficient Energy Star models.

In an attempt to make a significantly positive impact on energy consumption numbers throughout buildings at UCSF, we have made “The Big Chill” project our most recent undertaking.

The goal of this project is to retire as many refrigerators as possible and replace them with energy efficient models in order to reduce UCSF’s annual carbon footprint.

By replacing an old refrigerator with a new Energy Star unit, we would be saving an average of 800 kWh (kilowatt hours) per year, resulting in annual savings of $120 for that one unit. This has the potential of savings us tens of thousands kWh a year, translating into thousands of dollars of savings. As of now, 17 refrigerators are in the process of being replaced, and we are planning on replacing 40 units during this stage.

With the help of PG&E, we are looking to expand this project and integrate it into our upcoming Campus Building Project. Because PG&E grants rebates for refrigerator retirement based on Kilowatt hours saved, we hope to replace as many units as we come across during our audits over the next few months.
This month, interns performed audits of 48 total units located throughout 145 Irving, Aldea San Miguel, and Mission Bay Housing complexes. Taken with the prior audits of 17 Avenue houses, interns have now assessed a variety of residences at all UCSF Housing locations to bring the audit phase of the Green Campus: UCSF Residential Resource Efficiency Project to completion.

Though each Avenue house seemed unique on the outside with its distinctive and beautiful Victorian facade, analysis of the audit data showed significant commonalities across the residences. Based on these trends, and utilizing information about general residential energy consumption, Green Campus was able to segment the data into four specific action areas. The “Water” category included sinks and showerheads, and savings from reductions in water and energy (for hot water) usage. The “Insulation” category encompassed insulation and airtightness of the entire house, from roof to garage, including the walls and ducts.

As shown in the chart, potential savings from improving insulation and airtightness dwarfed all the other categories, making this a high priority area to address to improve energy efficiency.

For the apartments and unit audits at 145 Irving, Aldea, and Mission Bay, interns narrowed their focus from the surveys used at the Avenue houses. The rationale was that UCSF Housing had already put significant resources into building-level improvements at these locations, including upgrading lighting, appliances, and windows to bring them into compliance with energy efficiency standards. Therefore, the audit teams targeted tenant owned lighting and electronics use behavior for data collection and educational leave-behinds.

The graph shows potential energy and cost savings in the electronics use category, extrapolated from audit data to all units at the indicated locations. Savings come from turning off power strips and electronics to eliminate energy consumption due to phantom load or “vampire power” draws. All together, these simple changes would save 38,000 kWh and over $4,500 annually.

Together, Green Campus and UCSF have made impressive progress on the Residential Resource Efficiency project. The team is enthusiastic about contributing our services to the upgrade implementation phase, and helping housing buildings become more “green,” benefiting UCSF, tenants, and the climate!
During the month of August, the Green Campus team completed residential housing audits of three multi-unit complexes. In addition to assessing energy efficiency of the units themselves, we took note of ways that the tenants could help save on energy costs. These “behavioral upgrades” include replacing incandescent light bulbs with CFL spirals in personal desk or floor lamps, and switching off power strips when not in use to reduce the Phantom or “Vampire” Load of electronic appliances. Also included in this month’s Metrics are the potential electricity savings from replacement of 17 refrigerators in UCSF’s research buildings as part of the Big Chill project.

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<th>Potential Annual Savings</th>
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