

California State University, San Bernardino Green Campus Program

Green at a Glance

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Issue 16, April 5, 2007

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What's Next for the CSUSB Green Campus Team?

- Office Audits
- Second Annual CSUSB Celebrates Earth Day
- The Light Display and CFL giveaways at the Expo

Get involved!

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Down with Excessive Lighting!

When Walking through The Arrowhead Village (AV) Apartment Hallways at CSUSB, the Green Campus Interns noticed that there are just too many light fixtures. In many cases there would be two ceiling fixtures and two wall mounted fixtures with in 2 feet of each other. After meeting with the Housing Maintenance Supervisor, Louie Alvarado, and Associate Director of Residential Education, Juan Regalado, the interns were given permission to take light readings in the hallways, day and night, to establish which fixtures can be removed and which ones need to be repaired in order to achieve the hallway lighting standards set by the Illuminating Engineering Society (IES).

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Wall mounted sconce to be removed.



Ceiling Fixture to be repaired.

The Weather's Getting Warmer and the Days are Getting Longer...

*Here are some tips to save energy in the
spring/summer months.*

- Take advantage of that sunlight: Study outside!
- Close window shades to keep the heat out. Open windows at night to allow for cool and fresh air ventilation.
- Replace your incandescent (and heat generating) light bulbs with cool ENERGY STAR® qualified compact fluorescent lamps (CFL).



The Alliance to Save Energy's "Green Campus Program" is funded by the California Ratepayers under the auspices of the California Public Utilities Commission.



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Creating an Energy-Efficient World

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AV Hallway lighting Audit; Continued from page 1...

...Once the readings were taken, and counts of the fixtures were made, the interns informed the Housing staff that many of the wall mounted fixtures (sconces) could be removed and lighting standards would still be met. Louie Alvarado asked the interns to place stickers on fixtures that can be removed and fixtures that need to be repaired (in need of new 18 watt CFLs that may of burnt out, or reconnection of the bulbs if they were taken out intentionally). If it is assumed that Housing Maintenance was going to replace these bulbs already, then the increase in energy usage caused by turning those lamps back on is negligible. In all of the five buildings, three floors each, the interns counted 98 sconces that can be removed; 77 fixtures in need of repair (as mentioned above), in order to achieve the lighting standards; and 29 fixtures that can be changed from 26watts to 18watts. Accounting for the fixtures that can be removed and the ones that can be changed from 26watts to 18watts, **18,681.60 kWh** will be saved annually, which translates to **\$2,615.42** a year. If the fixtures that need to be repaired are not ignored, the savings are still substantial: **9,367.68 kWh** saved annually, or **\$1,311.48** saved each year.

Energy Savings for AV Hallway Lighting Audit

Assuming that Housing maintenance was going to make the repairs/replacements needed on some of the ceiling fixtures prior to the audit.

98 fixtures to be removed *26watts*24hrs*7days*4weeks*10months/1000.....	17122.56kWh
29 fixtures changed 26 watt CFLs to 18watt*(26w-18w)*24*7*4*10/1000.....	1559.04kWh
Totals in annual savings:	
17122.56kWh +1559.04kWh	18681.60kWh
18681.60kWh*\$0.14.....	\$2615.42

Probable Investments:

*77 fixtures*18watts*24hrs*7days*4weeks*10months/1000=9313.92kWh to be used, that was used not previously. 18681.60kWh-9313.92kWh=9,367.68kWh still to be saved a year, \$1311.48 saved annually.*