

CSU Stanislaus is Creating a Sustainable Environment

As we begin a new academic year, we would like to share some successes in making our campus environment sustainable and energy efficient. Our success is the result of strong support and cooperation of the campus community in partnership with the Facilities Services team. Together we have taken steps to increase energy efficiency, reduce energy costs, and reduce our carbon footprint.

Since 2007/2008, we have reduced the electrical kWh per gross square foot by 18%, which equates to approximately \$280,000 in savings. Our carbon footprint has also been reduced by 15.4% or 1,536 tons since 2008.

These reductions can be attributed to many things, including:

- *Maintaining the HVAC temperature settings at 68 degrees in winter and 78 degrees in summer.
- *Improvements in classroom scheduling of Summer and Winter Intercession classes.

- *Shutting down the HVAC system in some buildings & zones during summer.

- * Replacement of Air Handlers to more efficient units in Bizzini Hall, Science I, Cafeteria, Art & Library buildings.

- * Upgrades made to our Energy Management System Software which controls the campus Heating, Ventilation and Air Conditioning (HVAC).

- * Installation of a cover for the swimming pool and turning off the heat during Summer and Winter terms.

- * Installation of roofs with improved insulation & high reflectivity at the Art, Gym & Fieldhouse buildings.

- * Removal of approximately 30% of light bulbs from fixtures in many areas in Mary Stuart Rogers Gateway Building and Naraghi Hall of Science.

- * Replacement of the failed boiler at the Fieldhouse with a more efficient unit.

- * Installation of a small photovoltaic (PV) solar system at the Fieldhouse.

- *Reducing the number of campus-owned gas consuming vehicles by 28% since 2009/2010. When replacing critical Facilities vehicles (other than mowers), electric vehicles have been procured. This has led to a reduction in fuel consumption of 29% and contributed 90 metric tons to the reduction in our carbon footprint.

- * Webinar trainings across campus, rather than traveling out of town. In the Facilities department alone we saved \$14,152 in travel expenses and reduced our carbon footprint by 5.3 tons in 2011/2012.

Other efforts made to improve our environment include:

- * Use of only low VOC paints in the campus paint shop.
- * Diverting 300.25 tons of waste from our landfill (approximately 75% of our total) through the recycling efforts of every department on campus, and the recycling of used concrete, asphalt, wood and metal.
- * 85% of the cleaning products used across campus are Green Certified.
- * 50% of our campus grounds are maintained organically.
- * The pumping of run-off from the campus storm & irrigation water into the front reflection pond and then utilizing it for irrigation purposes.





Moving Forward Into the Future

Continuing efforts will be made to improve the environment by:

* Retrofitting existing parking lot and pathway lighting with new LED fixtures, estimated to reduce energy consumption by 65%, in turn saving dollars & reducing the carbon footprint.

* Replacing a cooling tower in the Central Plant that has reached the end of its useful life with a high-efficiency unit.

* Installation of a large PV system on the roof of the renovated Science I Building. This system is estimated to generate enough power for all of the electrical needs of the building (excluding the HVAC).

* Installation of a PV system to run the campus irrigation pump station.

* Improvements to the Central Plant system operations based on a Monitoring Based Commissioning Study performed in 2010.

* Installation of an individual building boiler at the Naraghi Hall of Science, which allows the large Central Plant boiler to be shut down off season.

* Further improvements in classroom, camp & meeting scheduling

* A study to determine if thermal storage is a worthy alternative for our campus will be completed in September of 2012.

* Installation of "Smart" irrigation clocks across campus that will use weather & moisture sensors to control irrigation cycles, saving water & electricity to run pumps.

* A commitment from members of the campus community to turn off computers or utilize sleep modes and to eliminate, remove or disconnect small appliances.

* Maintaining temperature settings throughout campus at 68 degrees in winter and 78 degrees in summer.

Many of the utilities savings that have been realized have been reinvested to further improve our efficiencies. Without the help and cooperation of all of the faculty, staff and students on campus these efforts would not have been possible. We appreciate your efforts and look forward to working with you to further help meet our goals in improving our environment!

