

*Energy Efficiency & Customer Research & Development presents...*

## *Customer Advanced Technologies Program Newsletter*

Volume 2, Number 3, October 5, 2004



### **In this issue...**

- From the Editor's Desk
- Customer Spotlight: County of Sacramento
- Upcoming Events & Current Research Projects

### **From the Editor's Desk**

#### **A Job Well Done...**

Last month the Los Rios Community College District received a well-deserved pollution prevention award from the Business Environmental Resource Center (BERC) for installing and using a non-chemical water treatment system known as the Dolphin. Los Rios has been using the system for over two years and is planning to implement the system throughout their district.

Historically speaking, the non-chemical water treatment industry has been plagued with questionable technologies, snake-oil salesman and dismal failures. Needless to say, it took a lot of courage for the Los Rios Community College District to step up and try something new.

Today, there are nearly three hundred Dolphin systems installed in California and the HVAC industry is starting to recognize pulse-power water treatment as a viable option. Kudos to the Los Rios Community College District for their pioneering spirit!

To learn more about the project, please download the report "Pulse-power Water Treatment for Cooling Towers" available at [www.smud.org/education/cat/other.html](http://www.smud.org/education/cat/other.html)

### **Customer Spotlight: The County of Sacramento** *The Electrical Harmonizer™*

SMUD and other electric utilities strive to provide their customers with power at "acceptable voltage levels" at all times (e.g. nominal voltage plus or minus five percent). Practically speaking this means that some customers receive voltage at the higher end, while others will receive voltage at the lower end of the spectrum. Theoretically, customers receiving higher voltages are

overdriving their equipment and 'wasting' energy. However, if the supply voltage is too low, electrical equipment may be severely damaged.

The County of Sacramento recently installed a device known as the Electrical Harmonizer™ at the County Administration Building. The Harmonizer™ is designed to optimize voltage levels, filter harmonics, improve power factor, and reduce phase voltage imbalance. Monitoring data from the project shows impressive energy savings of 5 to 10%. However, like the old saying goes - there's no free lunch: lowering voltage levels may have some potential risks. Care must be exercised to properly identify appropriate applications for this technology. To learn more, please download the report "The Electrical Harmonizer™" available online at [www.smud.org/education/cat/other.html](http://www.smud.org/education/cat/other.html)



County Administration Building

### **Upcoming Events**

#### **Insulated Concrete Forms**

**Date:** Tuesday, October 05, 2004  
**Time:** 8:00 a.m.-12:00 p.m.  
**Fee:** \$15.00

#### **FREUS (evaporative condensed air conditioners)**

**Date:** Thursday, October 21, 2004  
**Time:** 8:00 a.m.-10:00 a.m.  
**Fee:** No charge

Pre-registration required. Class space is limited. Both classes will be hosted by SMUD's Energy & Technology Center. To register, please call (916) 732-6738 or send an email to [etcmil@smud.org](mailto:etcmil@smud.org)

### **Current Research Projects**

- FREUS (residential air conditioning)
- 3<sup>rd</sup> generation indirect/direct evaporative cooling
- Coolerado (compressor-less cooling)