

January/
February 2008

Energy Leader

A Publication of the *Ventura County Regional Energy Alliance*

Home of the *Ventura County Energy Resource Center*

Energy Efficiency Resolutions

For the New Year

Annual household electricity averages about 6,000 KWH in the State of California.

Consider putting your house on "energy efficient diet" for the New Year by monitoring use, making energy efficient improvements and comparing billing data from last year to current year.

With the darker winter months upon us, lighting is used more hours of the day. Consider replacing old incandescent lamps with new Compact Fluorescent Lights (CFL's).

Take the Southern California Edison Energy Savings Pledge by going on line:

www.SCE.com

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There's a New Light in Your Future

A new family of lighting products is rapidly changing the nature of lighting systems that we use in our homes, offices and public spaces: light emitting diodes, more commonly known as "LED's."

Super efficient LED's are being positioned as replacements for all types of conventional lighting, including fluorescent, metal halide and high pressure sodium (commonly used in outdoor lighting) as well as incandescent lamps.

LED's have been with us for many years although their uses have been limited to indicator lamps (think of those little lights on your answering machine and other home or office electronics). When first developed over 45 years ago, the original LED's put out a tiny amount of light and were not designed with energy efficiency in mind. By contrast, today's commercial offerings put out as much as a **million times** more light than original experimental devices.

So why have commercial LED products become the "holy grail" of lighting technology? First, in certain applications LED's use only 1/10th the energy of the light source they are replacing. Second, they are extraordinarily long-lived. LED's can produce useful

light for 50,000-100,000 hours. By contrast, most incandescent lamps have a rated life of 750-2,000 hours. Common fluorescent lamps last somewhere between 15,000 to 30,000 hours.

LED's have become the lamps of choice for traffic signals. Traffic lights have used incandescent lamps in the 130-watt range, burning out after less than 2,000 hours of use. Replacement LED's use between 7 and 15 watts and are rated for 50,000 hours. This translates into reduce energy costs and maintenance savings.

Most communities within Ventura County are well on the road to, or have completed the LED conversion of their traffic signals. For example, in 2007 the City of Oxnard completed the retrofit of **all** of their traffic signals. The energy savings from this conversion will reduce the City's energy use by over one million kilowatt-hours per year, saving around \$120,000 annually. Project costs were substantially reduced with \$161,000 in energy efficiency incentive from the VCREA and its utility partnership program

Traffic signals are, of course, red, yellow and green. The real challenge in LED development has been the creation of "white" light that could replace other conventional energy sources.

In many ways the challenge has been met. The latest generation of LED products can produce large amounts of high quality light that can compete with conventional light sources. In some instances, super efficient fluorescent lamps will outperform LED's, but that could all change in the next 2-3 years of research.

Today, you can buy small desktop LED task lights, parking lot and street lighting, "area lighting" for building walls, walkways and parks; and LED exit signs. Other available products include recessed ceiling fixtures, wall sconces and a variety of indoor lighting fixtures. However, it may be awhile before high output, energy efficient LED's will compete with fluorescent fixtures for general use.

VCREA will offer a workshop on LED's presented February 27, 2008 by Stan Walerczyk, an internationally recognized lighting expert. Stan will get you up to speed on the technology, products and applications, and future of LED's. To register and obtain information, contact VCREA offices at 805-289-3335 or visit us on the web at www.vcenergy.org.

VCREA Member Agencies:

- County of Ventura
- City of Ventura
- City of Oxnard
- City of Santa Paula
- City of Thousand Oaks
- Ventura Regional Sanitation District
- Ventura County Community College District
- Casitas Municipal Water District
- Ventura Unified School District

VCREA Mission

To establish Ventura County, its communities and neighboring regions as the leader in developing and implementing durable, sustainable energy initiatives that support sensible growth, healthy environment and economy, enhanced quality of life and greater self-reliance for the region by:

1. Reducing energy demand and increasing energy efficiency and
2. Advancing the use of clean, efficient and renewable local resources

www.vcenergy.org



2008 Calendar of Events

<p>Wednesday, January 9 3 p.m. – 5 p.m. VCREA Conference Room</p>	<p>Plan Review Workshop (Greening Your Project Through Energy Efficiency) Participants may bring their building plans for review with a Certified Energy Manager to help achieve greater efficiency than Title 24 building code standards.</p>
<p>Thursday, January 17 10:15 a.m. 1001 Partridge Drive, Suite 150 Ventura</p>	<p>VCREA Board Meeting The VCREA Board meeting is open to the public.</p>
<p>Wednesday, February 13 3 p.m. – 5 p.m. VCREA Conference Room</p>	<p>Plan Review Workshop (Greening Your Project Through Energy Efficiency) Participants may bring their building plans for review with a Certified Energy Manager to help achieve greater efficiency than Title 24 building code standards.</p>
<p>Wednesday, February 27 9:00 a.m. to 1:00 p.m. VCREA Conference Room Lunch Included</p>	<p>Lighting for Energy Efficiency Presented by Stan Walerczyk of Lighting Wizards. Seminar on how lighting can be replaced for greater energy efficiency, reduced cost and improved lighting quality.</p>
<p>Wednesday, March 12 3 p.m. – 5 p.m. VCREA Conference Room</p>	<p>Plan Review Workshop (Greening Your Project Through Energy Efficiency) Participants may bring their building plans for review with a Certified Energy Manager to help achieve greater efficiency than Title 24 building code standards.</p>

Contact the VCREA Office for Details and REGISTRATION for these Free Events

Ventura City “Shared Employee” Benefits the Region

Jamie Kuhl, Ventura City Public Works Supervisor, is the first “Shared Employee” to work at VCREA, filling a halftime position over the past six months. The Shared Employee Program is a concept adopted last year by the VCREA Board to leverage resources and build skills that mutually benefit public agencies and their residents, as well as support VCREA efforts.

The Ventura Experience

Since 2003, the City of Ventura has been active in developing an energy efficiency ethic and city programs through its charter membership in VCREA. Over the past four years, the City has reduced energy use by **2,161,733 KWH** through the installation of various energy project up grades.

The City has benefited from VCREA support to complete energy efficiency projects at the Corporation Yard, City Hall, Police/Fire Headquarters and Westpark Gym, as well as gain VCREA support for the City’s recently adopted Green Initiative.

In order to meet the targets set by the Green Initiative, the City is in need of dedicated staff that can administer current programs and meet the test of new standards. Wearing hats for both the City and VCREA, Mr. Kuhl helped facilitate City employee technical trainings designed to increase knowledge, minimize travel time and contribute to a growing network of in-house house skills that will advance the City’s green efforts.

Residents have enjoyed the benefits of this shared employee who was available to local schools and non-profits to undertake energy efficiency audits and offer technical support that save the usually scarce resources that fund these important community support services.

And, city residents have been able to take advantage of new products such as LED holiday light strands, which were exchanged at City Hall through a VCREA program that enjoyed staff support from Mr. Kuhl.

The staff support and professional development emerging from the Shared Employee Program help the City and the greater Ventura community in reducing the carbon footprints of all residents, and allow the VCREA to open its doors and services to more organizations.

