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# Energy Leader

A Publication of the *Ventura County Regional Energy Alliance*

Home of the *Ventura County Energy Resource Center*

## Don't Drown in Energy Costs Energy Savings for Pools

### Energy Efficiency Resolutions

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

Consider putting your house on an "energy efficient diet" for the New Year by monitoring use, making energy efficient improvements and comparing billing data from last year to the 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](http://www.SCE.com)

### For Information about VCREA and Energy Efficiency in the Ventura County region

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The City of Ventura and the Pleasant Valley Recreation & Park District (PVRPD) have installed technology that is slashing energy use at their recreational swimming pool facilities. Special motor control systems known as variable speed or variable frequency drives (VFD) are reducing the amount of electricity used by the pools' filter pumps by **40% or more**. This is a technology that every public pool operator should seriously consider.

**How can such large savings be possible?** The majority of these pumps are oversized with excess pumping capacity. Designers include a number of "safety factors" to insure that the pump will move the right amount of fluid at the right pressure. Since flowrates at public pools are controlled by public health standards, it is better to be safe than sorry by oversizing the pump capacity. When the system is finally built and operating, the pump is likely to be moving too much water (gallons per minute or gpm). The operator will often turn valves down as a way of

slowing the flow to the desired rate. Reducing the flow with valves indicates that the pump is too large (too much horsepower) and unnecessary energy is being used. This is where the VFD comes in.

The VFD control units, which look just like another electrical box on the wall, have the ability to slow the pump motor down to the point where a predetermined flowrate is being accurately maintained. Because of the way motors use electricity even a small reduction in horsepower can lead to really large savings; hence the 40% plus reduction in electrical use.

The City of Ventura installed VFD's on three of the pool pumps at their Community Park. Before the upgrade, these three pumps, in the course of a year, used about the same amount of electricity as **70** average homes. The VFD's are reducing energy use by about 205,000 kilowatt-hours per year; which is a savings of 47%. At current rates the City will save about \$30,000 per year. Working with City Public

Works staff, VCREA was able to provide an incentive of \$28,000 for the project. Energy savings will pay for the system in about 1.5 years.

The Pleasant Valley Recreation and Park District Pool on Temple Avenue in Camarillo is a smaller facility with a single 15-HP filter pump, but electrical costs are still a big part of operating the facility. PVRPD staff decided to install a new super-efficient pump along with the VFD. The result: the system is using 37,000 kWh per year **less** and saving PVRPD almost \$6,000 per year. The district received a \$5,554 VCREA incentive, which was about 1/3 of the project cost.

You may not need a lifeguard to save you from drowning in energy costs; you just may need that box on the wall called a "variable speed drive."

If you operate a public pool, please contact VCREA to see if this technology is right for you. We can help you identify project costs and provide utility ratepayer incentives.

**Update Your Contact Information Online @ [www.vcenergy.org](http://www.vcenergy.org)** Please go online to register or update your contact information to receive Energy Leader newsletter and training seminar "Email Blasts"

**Energy Professionals and Energy Service Providers** are encouraged to register their company under the **Vendor** menu among the business service categories.

**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](http://www.vcenergy.org)



**2009 Calendar of Events**

<p><b>By Appointment</b>  <b>VCREA Conference Room</b>  <b>To schedule an appointment email:</b>  <b><a href="mailto:vcreea.admin@ventura.org">vcreea.admin@ventura.org</a></b>  <b>or call: 805.289.3335</b></p>	<p><b>Energy Efficiency Design Review With Energy Projects Manager</b> This design review will provide technical assistance, information and support to individuals who are in the early stages of remodeling or new construction of their homes and businesses. The focus will be on all aspects of energy efficiency in both residential and commercial buildings. Attendees should bring their plans and may invite their architects or building contractors.</p>
<p><b>Wednesday, January 7</b>  <b>8:30 a.m. to 12:30 p.m.</b>  <b>Southern California Edison Energy Resource Center</b>  <b>10600 Telegraph Road, Ventura</b></p>	<p><b>Adjustable Speed Drives (#20100)</b> Attendees will explore how adjustable speed drives can provide benefits such as reducing energy and maintenance costs in commercial, industrial and residential applications. <b>For a complete listing of SCE Energy Efficiency training opportunities visit: <a href="http://www.sce.com/RebatesandSavings/EnergyCenters/workshops.htm">www.sce.com/RebatesandSavings/EnergyCenters/workshops.htm</a></b></p>
<p><b>Thursday, January 15</b>  <b>10:15 a.m.</b>  <b>1001 Partridge Drive, Suite 150, Ventura</b></p>	<p><b>VCREA Quarterly Board Meeting</b>  The VCREA Board meeting is open to the public. The agenda is posted on the website: <a href="http://www.vcenergy.org">www.vcenergy.org</a></p>
<p><b>Wednesday, January 21 (Seminar #20248)</b>  <b>Wednesday, January 28 (Seminar #20249)</b>  <b>Wednesday, February 4 (Seminar #20250)</b>  <b>Wednesday, February 11 (Seminar #20251)</b>  <b>The Gas Company's Energy Resource Center</b>  <b>9240 Firestone Boulevard Downey</b></p>	<p><b>Regional Green Building Best Practices Series: LEED 2009</b>  The series of classes will not only provide an overview of LEED 2009 (#20248), but will discuss all six categories: Sustainable Sites, Water Conservation (#20249), Energy &amp; Atmosphere/Indoor Environmental Quality (#20250) Materials &amp; Resources (#20251) and will also cover the six basic LEED rating systems. Attendees will learn about the specifics of each category from a design and submissions point of view, as well as a LEED reviewer's point of view. Note: 3 AIA learning units per class. <b>For more information on this series and a complete listing of The Gas Company's Energy Efficiency training opportunities visit: <a href="http://www.socalgas.com/business/resourceCenter/ercHome.html">www.socalgas.com/business/resourceCenter/ercHome.html</a></b></p>
<p><b>Tuesday, February 24 (Seminar #20320 &amp; 20324)</b>  <b>Wednesday, February 25 (Seminar #20325 &amp; 20326)</b>  <b>The Gas Company's Energy Resource Center</b>  <b>9240 Firestone Boulevard Downey</b></p>	<p><b>EnergyPro® (State-Certified Software): Energy Modeling Series</b>  Learn how to model and document Title 24 compliance for building envelopes and windows (#20320), lighting (#20324), mechanical systems (#20325) and advanced (#20326). Note: 3 AIA learning units per class. <b>For more information on this series and a complete listing of The Gas Company's Energy Efficiency training opportunities visit: <a href="http://www.socalgas.com/business/resourceCenter/ercHome.html">www.socalgas.com/business/resourceCenter/ercHome.html</a></b></p>
<p><b>Wednesday, March 25</b>  <b>8:30 a.m. to 12:30 p.m.</b>  <b>Location: TBD</b></p>	<p><b>Advanced Technologies in Outdoor Lighting with Stan Walerczyk</b>  Learn more about LED applications and new fixtures that reduce energy costs.</p>
<p><b>Thursday, March 26</b>  <b>8:30 a.m. to 12:30 p.m.</b>  <b>Southern California Edison Energy Resource Center</b>  <b>10600 Telegraph Road Ventura</b></p>	<p><b>Improving Pump Plan Efficiency To Lower Energy Cost (#20108)</b> Water management professionals will learn practical issues and choices available regarding efficient pumping systems and effective management to maintain pumping efficiency and minimize water use (4.0 Contact Hours, California Department of Public Health) <b>For more information on this class and a complete listing of SCE Energy Efficiency training opportunities visit: <a href="http://www.sce.com/RebatesandSavings/EnergyCenters/workshops.htm">www.sce.com/RebatesandSavings/EnergyCenters/workshops.htm</a></b></p>

*Visit our website at [www.vcenergy.org](http://www.vcenergy.org) and go to the calendar of events for more detailed information on these and other free seminars---registration is required.*

