

Ventura County Regional Energy Alliance

2010 Annual Report

*Using Energy Efficiency as the First Step Toward
Energy Independence for the Ventura County Region*



Ventura County Regional Energy Alliance
Home of the Ventura County Energy Resource Center

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2010 Governing Board

City of Oxnard

Andres Herrera, Chair
Dean Maulhardt, Alternate

Casitas Municipal Water District

Jim Word, Vice-Chair
Richard Handley, Alternate

County of Ventura

Kathy Long, Member
Steve Bennett, Alternate

City of Ventura

Brian Brennan, Member

City of Thousand Oaks

Dennis Gillette, Member
Jacqui Irwin, Alternate

City of Santa Paula

Fred Robinson, Member
Ralph Fernandez, Alternate

Ventura County

Community College District

Cheryl Heitmann, Member
Larry Miller, Alternate

Ventura Regional Sanitation District

Jonathan Sharkey, Member
Charlotte Craven, Alternate

Ventura Unified School District

Mary Haffner, Member
Barbara Fitzgerald, Alternate

City of Camarillo

Jan McDonald, Member
Don Waunch, Alternate

City of Fillmore

Patti Walker, Member

Ojai Valley Sanitary District

John R. Curtis, Member
George Galgas, Alternate

Ojai Valley Sanitary District joined the Board this year, extending the interest and collaborative efforts to 12 public agencies. Membership may be expanded at any time to include new public agency members from throughout the region with shared interests and powers in common.

VCREA is a Joint Powers Agency (JPA) composed of public agencies working in collaboration to address the availability, reliability, conservation and innovative use of energy resources in the Ventura County region. Each agency appoints a representative Board Member and Alternate to serve on the VCREA Board.

Quarterly Board meetings are held in January, April, July and October on the third Thursday of the month. Meetings are open to the public and agendas are posted on the VCREA website.

2010 Technical Advisory Council Members

Nan Drake

Harrison Industries

Janet Gagnon

SolarWorld Industries

Rudy Gonzales

Southern California Edison

Poul Hanson

Ventura County Office of Education

Dan Hardy

*Housing Authority of the
City of San Buenaventura*

Doug Nelson

MainStreet Architects

Tom Nielsen

Energy Systems, Inc.

Michelle Pettes

Southern California Gas Company

Wayne Tanaka

Verified Inc.

Tom Umenhofer

NRG, LLC

Mike Villegas

*Ventura County Air Pollution
Control District*

Nancy Williams

Southern California Edison

The Technical Advisory Council (TAC) provides a valuable public/private partnership connection to VCREA and lends essential technical and business support to the Board and staff.

TAC Member appointments are based on their skills and background with public agencies; utility and business partners; research or education; and general energy interest and willingness to serve. The TAC meets three times a year and is "on-call" to assist in strategic planning and long term projects.

During 2010, TAC focused on developing VCREA as a regional energy planning office, developing a service bureau approach for public agencies, and raising the visibility of the organization through a joint presentation in October with the Economic Development Collaborative – Ventura County (EDC-VC) to advance energy options in the manufacturing business community.

Year In Review

Building on past efforts as the regional energy planning office, VCREA was available to track opportunities and lend technical support to Ventura County cities, public agencies and non-profit organizations to access various energy efficiency funds. This year's funding sources included state and federal energy stimulus funds, maintenance budgets, capital funds and utility incentives.

LENDING SUPPORT TO ENERGY STIMULUS FUNDED PROJECTS

- VCREA provided technical support to 9 cities and the county that included refining project proposals and feasibility analysis, developing contract documents and supporting report documents for approximately 93 local projects for interior and exterior lighting, and heating and ventilation systems.

SERVICE BUREAU CONTRACTS

- ◆ Ventura County Office of Education – Completed Solar Study to introduce 16 school districts to the concepts and decision points associated with proposed photovoltaic installations.
- ◆ City of Ventura – Provided technical support for the City's Non-Profit Energy Efficiency Program that will benefit 17 non-profits using a portion of federal stimulus funds to install various lighting improvements.
- ◆ Ojai Valley Sanitary District – Energy Efficiency Identification Study to help the agency verify best practices undertaken and determine opportunities for immediate improvements.

ROLLING OUT THE UTILITY LOCAL GOVERNMENT PARTNERSHIP PROGRAM

- ◆ Working in conjunction with Southern California Edison and Southern California Gas Company, VCREA took the local lead with the cities of Camarillo, Fillmore, Moorpark, Ojai, Oxnard, Port Hueneme, Santa Paula, Thousand Oaks and Ventura, and the County of Ventura to undertake the 2010-2012 program cycle with a goal of reducing 9,500,000 kWh over the next 3 years. This is a major commitment by VCREA and allows the municipalities and county to jointly participate in utility programs that benefit their individual public facilities, and each community's residential and business customers.
- ◆ The Partnership Program is expected to expand in the second year, 2011 to compliment various state programs that are coordinated with the utilities to expand technical training to contractors, complimentary information for residential customers making energy efficiency upgrades to their homes, and encouraging higher codes and standards to support the statewide goals leading to greater energy efficiency and less reliance on fossil fuels.

The Ventura County Partnership Program

Southern California Gas Company Southern California Edison Ventura County Regional Energy Alliance

The Ventura County Partnership Program is funded by California utility ratepayers and administered by Southern California Gas Company (SCG) and Southern California Edison (SCE), in partnership with Ventura County Regional Energy Alliance (VCREA), under the auspices of the California Public Utilities Commission (CPUC) for the purpose of advancing energy efficiencies in public agencies.

Since 2003, ratepayer public goods funds have come to the Ventura County region to benefit energy efficiency programs. Each program has taken a slightly different direction, pending the direction of the CPUC. The 2010–2012 Partnership Program was developed to support the CPUC's statewide strategic plan for even greater energy efficiencies through local building codes and operations.

Southern California Edison has focused the partnership on its "Energy Leader Model" which is aimed at supporting the cities of Camarillo, Fillmore, Moorpark, Ojai, Oxnard, Port Hueneme, Santa Paula, Thousand Oaks and Ventura, and the County of Ventura with incentives to develop energy and climate action planning and undertake facility improvements through retrofit projects that reduce energy consumption. Southern California Gas Company supports all public agencies in gas efficiency projects, recognizing these are found in cities, schools and other public facilities.

VCREA continues to be responsible for the day-to-day operations of a local energy efficiency clearinghouse office, website, training seminars, project identification, technical project support and energy planning. VCREA works to identify best available technology and new product information, enhance maintenance and operations, lend support for contract and bid documents, verify that facilities have installed improvements and their energy consumption has been reduced.

The Partnership Program also provides residential and small business utility customers with a direct link to dozens of energy rebates, training workshops and customer programs.

2010 Ventura Partnership Program Accomplishments

- ◆ 6 Technical Training Seminars benefitting approximately 200 individuals; 9 Community Events reached approximately 6,200. Coordinated BOC Level II Course for our Region benefitting 16 local individuals.
- ◆ Strategic Planning Efforts – 19 workshops and meetings covered planning efforts and codes benefitting approximately 244 individuals.
- ◆ 6 Bi-monthly Newsletters in print and electronic formats, and operation of informational website.
- ◆ Marketing and Information Outreach to 17 kiosks located at Libraries, Chambers of Commerce, and City Halls.

Projects Take Many Paths to Energy Efficiency

VCREA supported many public agencies in making strategic changes to their facilities and positioning for new projects that consume less energy.

Stronger Codes and Standards

California revises its Title 24 Energy Code every 3 years. The latest edition became effective in January 1, 2010. All new construction, additions and alterations are subject to the Energy Code requirements. Title 24 is the most robust energy code in the U.S., and has been key in keeping per capita electricity use flat in the state for 30 years.

The California Public Utilities Commission (CPUC) is encouraging local governments to establish their own energy standards ("reach codes") which go beyond Title 24. Whether these local codes are mandatory or voluntary, there exist many opportunities to go beyond the minimum standards set by Title 24.

During 2010, VCREA provided a series of training opportunities directed to architects, engineers, contractors and building officials that focused on increasing understanding of Title 24 and to highlight opportunities to improve efficiency beyond the code.

New Technology Benefits Exterior Lighting

When building owners and operators improve the lighting efficiency *inside* their facilities, they often overlook the lighting that is on the *outside*. In many cases, exterior lighting can be a significant cost. Over the past few years, cost-effective technologies are providing new solutions to lighting used on building exteriors, in parking lots and in other outdoor spaces such as parks.

New fixtures using induction lighting or LED's will cut energy use in half and reduce maintenance costs since the new technology lamps will last 5 to 10 times longer than older lighting systems. When new control options, such as motion sensors, photocells and "bi-level dimming" are added to the new lighting systems, overall energy use can go down by 75%.

Interior Lighting Systems

The newest generation of fluorescent lighting uses only one-third the electricity compared to fluorescent fixtures installed 20 years ago. If a building lighting upgrade was completed more than four years ago, then the latest fluorescent technology using "high output" lamps and programmed start ballasts could provide an additional 25% or greater savings.

LED (light emitting diode) technology is poised to make real inroads in interior lighting applications. Each year new LED products produce more light with less energy. Recessed downlights, desktop task lighting, and hallway lighting are examples of high performance LED fixtures. Over the next few years, reliable and efficient LED fixtures will become a viable option for general overhead lighting currently dominated by fluorescent lighting.

Lighting efficiency does not stop with the light fixture. *Lighting controls* such as occupancy ("motion") sensors, daylight sensors and dimming systems need to be part of a well-designed system. Future lighting controls will allow light fixtures to "talk" to the outside world. During periods of peak energy use when brownouts, or worse, are possible, lighting systems will have controls that reduce energy use and help to take some

of the pressure off the “grid.” VCREA continues to offer high-quality training presented by internationally recognized lighting experts. Training attendees can be assured that they are receiving the most up-to-date objective information on lighting technology.

HVAC Incentives

Energy efficiency incentives paid for through ratepayer dollars do not always go to the end-user. For example, HVAC equipment manufacturers receive incentives to bring high-efficiency units that stay cost-competitive with older, less efficient technology to the marketplace. This allows the end-user to upgrade to the most efficient units with little, if any, price increase.

By example, the cities of Fillmore, Ojai, Port Hueneme and Santa Paula will be using a portion of their federal stimulus funds to replace old, inefficient HVAC units. VCREA worked with the cities to develop specifications for highly energy efficient new units. To put this in perspective, the efficiency levels specified by VCREA *will cut energy costs for air conditioning by 50%*.

Many of the existing HVAC units are 20 years old and well beyond their rated service life. Replacing these units will greatly reduce maintenance and repair costs to further enhance energy savings.

Solar

Ventura County Office of Education took the lead to bring together 16 school districts who were seeking to explore solar opportunities for their district facilities. This interest led to a contract between VCOE and VCREA to study the solar potential at selected school sites. The study analyzed opportunities at 64 different sites. The mix included elementary, middle and high schools as well as administrative facilities. The study identified how much electricity could be provided by solar at each site, and installation options as well as different funding mechanisms including direct purchase, leasing and power purchase agreements.

Recently, The County of Ventura has contracted with VCREA to provide a similar study at approximately 35 sites. The County’s goal is to attain a significant portion of its greenhouse gas reduction goal by offsetting electricity use through solar.

Smart Meters

Smart Meters can mean different things to different people. At a minimum a smart meter will provide more and readily accessible information to each utility customer. Ideally, the meter will be accessed by the customer through their home or business computer and will provide “real time” information on usage and cost of electricity and natural gas. This will give the user the ability to make choices about how and when they use energy, and what the impact will be if they change their usage pattern. The meters will also have the ability to communicate to the utility. This will facilitate accurate and timely billing, as well as allow the utility to provide new rate options to their customers which could lower costs while minimizing grid disruptions due to very high demand.

The CPUC has mandated that the utilities install approved smart meters for all customers. These change outs will begin over the next one to two years. Future options may include integration with electric vehicle charging, improved utilization of on-site (e.g. solar, wind, etc.) generation and more automation of a building’s appliances and other systems.

Message from the Director

We are ten years into the 21st century and the “energy decade” is firmly upon us. VCREA grew out of the rolling brownouts of 2001 to emerge among the green economy that is taking root in our state. Over the past decade, VCREA helped public agencies identify energy efficiency as a first step toward recovering their utility and operations budgets. From organizational inception in 2003 through 2010, VCREA helped public agencies reduce energy consumption by 14,535,815 kWh.

Each year gives us reason to reconsider the opportunities we have to use resources more efficiently. Looking ahead to 2011, VCREA is poised to be actively involved with public agencies to reduce energy use and benefit from new technologies. VCREA will continue to work with public agency partners in the development of appropriate energy funding options to advance new projects. We will lend expertise as requested to advance greater investment in energy efficiency, provide reliable resource information, and prepare for public agency participation in the renewable energy sector. We remain committed to working with elected and community leaders to advance dialogue and understanding of energy policy, legislation and finance, and encourage public participation in reaching shared community goals.

Cheryl Collart, VCREA Executive Director

Mission Statement

The VCREA mission is 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.