



SOUTHERN CALIFORNIA
EDISON[®]

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– www.cpuc.ca.gov
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SOUTHERN CALIFORNIA EDISON

POWER BULLETIN INDUSTRIAL SEGMENT

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Save Energy and Money With New SCE Learning Opportunities

The New Year brings a number of new learning opportunities at Southern California Edison's (SCE) Energy Centers to help you develop and implement energy management solutions that improve your bottom line.

In addition to its many existing free classes on lighting, HVAC, motors, refrigeration and other key energy topics, in 2011 Edison's Energy Center in Irwindale, the Customer Technology Application Center, introduces the following new free courses:

2008 Nonresidential Standards Essentials for Energy Consultants: Feb. 10, Event No. 27246

This intermediate-level seminar for energy consultants will explore the nonresidential building energy standards and the importance of staying up-to-date to effectively communicate energy efficiency compliance options and requirements to clients. Attendees will learn to identify key nonresidential building energy efficiency standards and compliance issues for new construction, alterations and additions; recognize the purpose of compliance-related documents; communicate compliance options and requirements to builders and clients; and apply knowledge of the standards to typical job tasks. This seminar provides seven AIA/HSW Learning Units.

California Advanced Lighting Controls Training Program Five-Day Workshop: March 7, 8, 9, 10 and 11 (all from 8 a.m. to 7 p.m.), Event No. 27810

The California Advanced Lighting Controls Training Program (CALCTP) is a statewide initiative aimed at increasing the use of lighting controls in commercial buildings. CALCTP will educate, train and certify general electricians in the proper design, installation and commissioning of advanced lighting control systems, which typically include dimmers, occupancy sensors, photo-sensors, relay modules and communication-based control devices. The course will include a combination of lectures and hands-on lab sessions (attendees should bring basic tools) and conclude with a final exam.

For CALCTP enrollment, participants must be state-certified electricians and provide a certificate of completion for the Lighting Controls Association online program before beginning the CALCTP course. Mandatory prerequisites are EE101: Introduction to Lighting Controls, EE102: Switching Controls, EE103: Fluorescent Dimming and EE201: Daylight Harvesting. Find these courses at www.aboutlightingcontrols.org/Education_Express/accr_orgs.php

Industrial Lighting Applications: March 24, Event No. 27016

This advanced-level workshop geared toward architects, engineers and designers will serve as a practical guide to designing energy-efficient lighting for industrial facilities. Attendees will receive an overview of industrial environments' special lighting requirements as well as an examination of design standards, energy and safety issues, controls and state-of-the-art equipment. Design charrettes will showcase solutions to specific industrial lighting challenges. Prerequisites for this workshop include The Lighting Design Process and its prerequisites. This workshop provides seven AIA/HSW Learning Units.

For more information about how SCE's Energy Centers in Irwindale and Tulare can help you make smart energy choices, to review the complete list of course offerings (including those held offsite) and to register for a class, log onto www.sce.com/energycenters.

Visit World Ag Expo for Energy Solutions From SCE

SCE will showcase a variety of energy management programs and services at the upcoming World Ag Expo—the world's largest agricultural exposition, taking place Feb. 8-10 in Tulare.

Stop by the SCE exhibits—spaces 6138-40 in the Dairy Center and booth L40 on North Greenbelt—to learn more about SCE's energy efficiency, Demand Response, solar and other programs that can help improve your bottom line. You also can view free pump tests and hybrid fleet truck demos, plus receive updated information about the new Smart Meter technology and plug-in vehicles.

In addition, SCE customers who bring a recent electric bill to SCE's booth area will receive a free gift (one per customer, while supplies last).

During the World Ag Expo, SCE's Energy Center, the Agricultural Technology Application Center (AGTAC), will offer the following free seminars/workshops:

- **Feb. 8, 11 a.m.-12 p.m.: Pump Efficiency:** Learn practical issues and choices available for efficient pumping systems and pumping efficiency maintenance. Dairy Center Booth 6138-40.
- **Feb. 8, 12 p.m.-1 p.m.: Solar Energy Panel Discussion:** Find out more about SCE's programs and solutions to harvest the sun's power and reap the savings. Dairy Center Booth 6138-40.
- **Feb. 10, 9 a.m.-10 a.m.: Integrated Energy Solutions:** Learn how to make the most of the kilowatts you use through SCE's energy efficiency and Demand Response programs, which can help you earn financial incentives and other benefits. Booth L40 North Greenbelt.
- **Feb. 10, 10 a.m.-11 a.m.: Smart Meter and the Smart Grid:** Explore SCE's leading Smart Meter and Smart Grid strategy and advancement efforts. Booth L40 North Greenbelt.
- **Feb. 10, 11 a.m.-12 p.m.: Electrical Safety:** Learn about electrical safety for agricultural workers through safety demonstrations, tips and practices. Booth L40 North Greenbelt.

If you're at the World Ag Expo, also visit SCE's AGTAC, located directly across the street. This state-of-the-art educational resource center showcases technologies through interactive exhibits, demonstrations and classes to help customers save energy, money and the environment.

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AgTAC classes and tours are free. For more information, visit www.sce.com/energycenters. Details on the World Ag Expo are available at www.worldagexpo.com, and the showgrounds map is located at www.worldagexpo.com/General-Info/Showground-Maps.htm.

INDUSTRIAL SEGMENT FOCUS

Energy Savings Grow at Sunkist Facility

A refrigeration system upgrade at Sunkist Growers Inc.'s facility in Tipton, Calif. (in Tulare County) is helping the citrus juice and oil producer squeeze more energy savings out of its production process.

The nearly completed project, which began in mid-2010, is projected to save Sunkist Growers approximately \$200,000 annually in electricity costs. Sunkist's estimated incentive from SCE (pending final post-installation inspection) is just over \$425,000.

As part of the Sunkist Growers—the world's largest not-for-profit produce marketing cooperative—the Tipton facility serves as the largest producer of citrus juice and oil (from oranges and lemons) on the West Coast. The facility uses two engine rooms (North and South) to meet the refrigeration demand for its process, but inefficient systems and equipment previously meant higher-than-necessary electricity bills.

Investments to Stay Competitive

When he joined the company early last year, Maintenance Manager Jerry Coble started to focus on ways for the 35-year-old plant to gain capacity and improve efficiencies and energy savings. "To stay competitive, companies need to go after every dollar they can," he said. "But you have to invest to stay competitive. Everybody here is working toward that same goal."

Sunkist completed the project with SCE through the Third-Party Implementer Program, with Lockheed Martin as the implementer that provided technical services and project management assistance, plus measurement and verification services.

Steps to a More Efficient Refrigeration Cycle

The upgrade of Sunkist's South Engine Room, which feeds the main plant, involved building a new system in parallel to the old one so the tie-in would reduce production impacts. Key work that helped facilitate a highly efficient refrigeration cycle included:

- Utilizing new and more energy-efficient condensers and compressors;
- Building new, properly sized piping and connections to reduce friction losses;
- Removing existing receivers and replacing them with one new 3,000-gallon receiver;
- Relocating condensers to achieve proper drainage;
- Resizing the heat exchanger to ensure use of the appropriate amount of cooling liquid; and
- Adding a new suction header and a liquid header, and replacing existing pumps.

The changes, Coble said, allow the South Engine Room to operate at lower condensing pressures and higher suction pressures while providing the same amount of cooling. They also enabled the facility to separate the two engine rooms since supplemental cooling from the North Engine Room is no longer necessary. Each engine room now can function independently.



A refrigeration system upgrade at Sunkist Growers Inc.'s facility in Tipton, Calif., is projected to save the produce marketing cooperative approximately \$200,000 each year in electricity costs. Shown left to right are Sunkist officials Keith Rudd, Jerry Coble, Barbara Ratchford and Ron Alexander.

A Tailored Incentive Package

Coble credited SCE and account executive Frank Yanes for helping bring the project to fruition.

"We initially sat down with SCE to identify the areas we wanted to redesign or upgrade," he said. "Once that was established, SCE helped put together an incentive package based on our current energy use vs. future savings after project completion. The process has gone very smoothly."

In addition, at the invitation of Yanes, SCE Economic Development Services Project Manager Laurel Shockley brought in the Tulare County Economic Development Corporation (EDC) to meet with Sunkist to discuss incentives available. The Tulare EDC worked to amend the current Targeted Tax Area boundaries to include Tipton, and specifically Sunkist's 17-acre facility, within zone boundaries. Sunkist will be able to claim a sales tax credit on all machinery and equipment purchased for production and processing within the Tipton plant.

To pursue opportunities to keep its energy savings growing, the Sunkist Growers' Tipton facility joined SCE's Demand Bidding Program (DBP) last year. A year-round, flexible, Internet-based bidding program, DBP offers participating customers credits for voluntarily reducing power when a DBP event is called, with no penalties for not submitting a bid and not reducing power.

As its next step to save energy and money, the facility is partnering with SCE to redesign its receiving process to eliminate 29 transition points and 300 horsepower of energy. Coble noted, "We plan to continue working with SCE on several other projects as well as exploring operations improvements. We want to get to a point where we can start adjusting our operational schedule to meet our production schedule and stay out of peak-production hours."

For more information on how you also can benefit from SCE's wide array of energy management programs and services, contact your account representative or visit www.sce.com/solutions and www.sce.com/drp.