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**GOVERNMENT & INSTITUTIONS** 

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# Strengthening SCE's Electric Network: Transmission Projects

Even as the current economic downturn is causing many businesses to reduce operations, Southern California Edison (SCE) must still serve new customers and continue to build facilities now to meet anticipated new loads in the future. To keep pace and ensure future service reliability, several years ago SCE began a major infrastructure expansion and replacement project. Between 2001 and 2007, SCE invested approximately \$1.84 billion in transmission and subtransmission projects.

SCE continues to make significant investments in our transmission grid to serve new customer load, maintain reliability, access renewable energy resources, and support a competitive and robust electricity marketplace. Current plans are to invest approximately \$4.9 billion in additional transmission infrastructure over the next five years as part of an up to \$19.8-billion investment to expand and renew the region's essential distribution and transmission grids, making the power grid greener and smarter for SCE's customers. Transmission investments include projects that are expected to:

- facilitate the development and delivery of renewable resources to customers.
- maintain reliability of the electric system,
- reduce system congestion and related customer costs, and
- serve growing customer load in the long run.

The projects that make up SCE's transmission expansion program will ensure that California businesses and residents have the solid, robust transmission system essential to a dynamic region. A list of SCE's current and completed transmission projects is available at www.sce.com/ PowerandEnvironment/Transmission.

SCE also is making substantial investments in new substations, transformers and distribution facilities, plus advanced technologies that will move us toward a more integrated "Smart Grid."

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## Supply-Demand: Looking Back at 2009

As SCE looks ahead to further strengthening our system to meet customers' future energy needs, we look back on a relatively mild summer in which we reached our 2009 peak demand (21,786 megawatts (MW)) on Sept. 3, 2009. (SCE's alltime system peak of 23,303 MW occurred on Aug. 31, 2007.)

Despite a summer that did not see major heat storms, SCE still tapped into some of its demand response and interruptible programs to meet power needs when transmission or distribution issues occurred that impacted the power delivery

Even though this summer did not have any high and extended temperature events, that does not mean next summer will follow suit. The National Weather Service has predicted a mild El Niño this winter, and that is usually followed by higher summer temperatures.

SCE continues to develop additional levels of customer energy-efficiency and demand response programs, in addition to existing programs, to help meet future grid needs and help you improve your bottom line.

So, contact your account representative to discuss 2010's energy-efficiency and demand response programs that can enable you to help keep the electrical system whole and save energy and money.

For more information on all of SCE's programs to assist you in improving your bottom line, visit www.sce.com/b-rs/large-business/.

## Put Your Energy Into Holiday Savings

Here are some simple tips to help you celebrate the holiday season more efficiently and safely:

Efficiency Tips:

- Select more efficient LED (light-emitting diode) or miniature lights, or use lower-watt bulbs as replacements for standard strings.
- Set holiday lights on a timer so they do not stay on longer than needed.
- Replace standard lighting with compact fluorescent bulbs, halogen lamps and high-intensity discharge lights (HIDs) for year-round savings.

Safety Tips:

- Only use UL (Underwriters Laboratories Inc.)-approved lighting and cords.
- Do not insert nails or tacks through any electrical cords, and replace damaged, brittle or frayed cords.
- Keep electrical connectors off the ground and away from moisture.
- Never use lighted candles on trees or decorations.
- Keep holiday lights away from carpeting, furniture, drapes or other combustible materials.

For more information on energy efficiency and safety, visit **www.sce.com**.

## **GOVERNMENT & INSTITUTIONS SEGMENT FOCUS**

## Energy Action Plan Puts Loma Linda on Road to Savings and Sustainability

The City of Loma Linda, billed as a national center for health and wellness research, is also becoming renowned for its integrated approach to energy management, leading to lower energy costs, improved system reliability and reduced greenhouse gas emissions.

"We want to be good stewards of the limited resources we have available," said City Manager Jarb Thaipeir. "We believe that by working together as a community, we can make a significant difference in protecting our environment for our children and future generations."

The City began its aggressive focus on energy management a few years ago with an SCE Energy Action Plan geared to reducing energy consumption and achieving long-term cost savings. Loma Linda's approach to all of its energy-associated projects starts with energy efficiency. Under the plan, the City's progress includes:

- Taking part in energy-efficiency rebate and incentive programs like Express Efficiency, Standard Performance Contract and the Agricultural Energy Efficiency Program to install more efficient equipment
- Using the Savings By Design Program to receive design assistance and incentives for high-performance new building design and construction
- Installing solar energy systems on four buildings in its Civic Center complex



The City of Loma Linda shows its commitment to renewable energy with solar energy systems on its Civic Center that generate about 282 kW.

- · Joining demand response programs like the Demand Bidding Program and Summer Discount Plan to reduce energy usage during peak-period times
- Using the Technical Assistance and Technology Incentives Program for demand response site audits and financial incentives to install technologies that temporarily reduce electricity usage during peak-demand times

All of these projects came about due to close collaboration between the City and SCE, including account manager Gerald Wilson. "SCE performed a free energy audit to identify areas for savings," said Associate Engineer Jeff Peterson. "It took us awhile to understand this 'too good to be true' concept of SCE helping to pay for projects that reduce our bills."

Facilities Coordinator Brian Bolger continued, "Gerald Wilson brings so much to the table. He gives us assistance that ends up putting money in the City's pockets with both incentives and lower bills. SCE is helping us do more with less by enabling us to increase our efficiencies and putting us on the cutting edge of technology."

## The Solar Solution

One technology Loma Linda definitely is embracing is solar, with approximately 1,600 solar panels on its City Hall, Senior Center, Fire Station and City Library. According to Bolger, the systems produce about 282 kilowatts (kW), saving the City approximately \$6,000 each month. He added that the \$817,000 California Solar Initiative rebate received with support of SCE paid for about 40% of the project cost.

"Locally produced renewable energy reduces greenhouse gas emissions, our carbon footprint, dependence on foreign oil and our electricity bill—it's the right thing to do," Peterson said. "Technology is advancing the efficiency of solar energy while reducing the construction costs, so we are now looking at adding a 50-kW array at our Public Works Corporation Yard."

## The Energy-Water Connection

In another major initiative, the City tapped into SCE's Technical Assistance and Technology Incentives Program to receive an incentive of more than \$250,000 to install a SCADA (Supervisory Control and Data Acquisition) System and variable frequency drives to better enable participation in demand response programs for control of water pumping operations.

"The City's biggest energy cost is pumping and moving water," Peterson said, crediting Water Superintendent Russ Handy for his role in this initiative. "How much, when and by what means make a huge difference in energy usage. In these times of tight budgets, we are searching every corner for savings.

Loma Linda remains committed to this search for opportunities to lower energy costs. Besides an additional solar energy project, the City plans to implement an irrigation efficiency program to reduce pumping needs for greenbelt areas, leading to even more savings.

To learn more about how you can benefit from SCE's wide array of energy management programs and services, contact your account representative or visit www.sce.com/b-rs/large-business/.

