



SOUTHERN CALIFORNIA
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IN THIS ISSUE ...

- » SCE Charges Ahead to Help Customers Get Plug-In Vehicle Ready
- » Visit World Ag Expo and SCE's Energy Center-AGTAC in Tulare
- » Kinder Morgan Keeps Energy Savings in the Pipeline

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POWER BULLETIN

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INDUSTRIAL SEGMENT

SCE Charges Ahead to Help Customers Get Plug-In Vehicle Ready

With several plug-in vehicle (PEV) models coming to market in late 2010—and estimates of 100,000 PEVs in Southern California Edison's (SCE) service territory by 2015—SCE is working to streamline the process for business and residential buyers and make certain the grid is ready to support the full-scale commercial introduction of these vehicles.

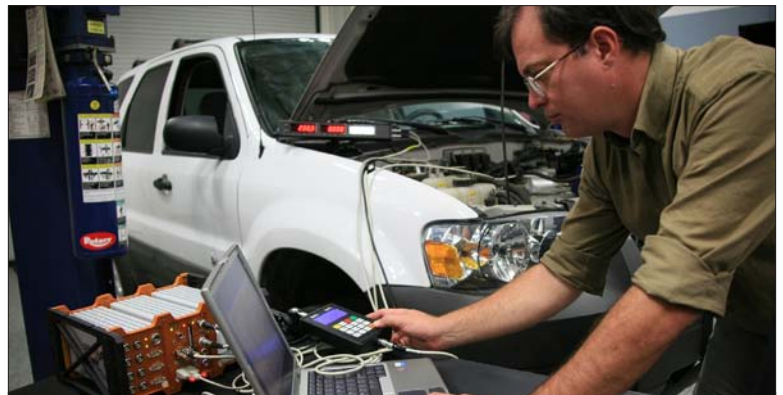
Business customers interested in incorporating PEVs into your fleet should contact SCE early on to:

1. address any potential upgrades needed for your site's electrical service (such as for commercial charging at Level Three, with a 480-volt connection), and
2. determine the best rate option for you.

Vehicle Purchase Survey

To help SCE make the customer experience as convenient and simple as possible, please take the PEV purchaser survey at www.sce.com/pev.

The widespread adoption of PEVs represents an important element of efforts to reduce greenhouse gas emissions. A study by the Electric Power Research Institute and Natural Resources Defense Council concluded that by 2050, the



An engineer works on vehicle research programs at SCE's Electric Vehicle Technical Center in Pomona, Calif. As SCE prepares its own operations and infrastructure for the arrival of plug-in vehicles, the company is informing prospective purchasers about the need to get "plug-in ready" before buying.

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widespread adoption of plug-in hybrid-electric vehicles could reduce annual vehicle emissions of greenhouse gases by more than 450 million metric tons, the equivalent of removing one-third of today's light-duty cars and trucks from the road.

Plug-In Readiness Pledge

SCE is currently working with state and local officials, automakers and other key stakeholders to prepare for greater use of PEVs in our electrical system. Last fall, SCE joined other member utilities of the nationwide Edison Electric Institute to sign a pledge for PEV market readiness addressing infrastructure, customer support, education, vehicle and infrastructure incentives, and utility fleets.

In the last area, SCE already operates the nation's largest private fleet of 300 electric vehicles. Since the program's inception, SCE's electric vehicles have traveled more than 18 million miles, reducing greenhouse gas emissions by 9,800 tons and pollutants by more than 2,200 tons. In addition, SCE leads the nation in generation from renewable sources, so PEVs charged in SCE's service territory will be among the cleanest in the nation.

For more information on getting plug-in ready, contact your account representative and visit www.sce.com/pev.

Visit World Ag Expo and SCE's Energy Center-AGTAC in Tulare

SCE will showcase a variety of energy-efficient programs and services at the upcoming World Ag Expo—the world's largest agricultural exposition, taking place Feb. 9-11, 2010, in Tulare, Calif.

Stop by and visit SCE's booth areas—6138, 6139 and 6140 in the Dairy Center, and 1333, 1334, 1433 and 1434 in Pavilion A. The SCE Dairy Center exhibits will highlight energy-saving opportunities for agricultural and industrial customers, including free pump tests. The SCE Pavilion A booths will include information on SCE's extensive program offerings available for customers to improve their bottom line.

If you're at the World Ag Expo, also visit SCE's Energy Center, the Agricultural Technology Application Center (AGTAC), located directly across the street from the expo. This 24,200-square-foot, state-of-the-art facility showcases technologies through interactive exhibits to help customers save energy, money and the environment.

During the World Ag Expo, AGTAC will offer a free seminar on "Improving Energy Efficiency in Drip Irrigation."

At AGTAC, you'll find displays on indoor and outdoor lighting, HVAC, cool roofs and more. In the Outdoor Demonstration Grounds you'll see displays on chemigation, growing grounds, and irrigation and pumping technologies, among others.

Plus, check out the Ground Source Heat Pump display—which demonstrates geothermal heat pump energy efficiency capabilities—and a grid-connected, power-generating photovoltaic section.

AGTAC classes and tours are free. For more information, call 800.772.4822 or visit www.sce.com/energycenters. Details on the World Ag Expo are available at www.worldagexpo.com, and the showground map is located at www.worldagexpo.com/General-Info/Showground-Maps.htm.

INDUSTRIAL SEGMENT FOCUS

Kinder Morgan Keeps Energy Savings in the Pipeline

Kinder Morgan, one of North America's largest pipeline transportation and energy storage companies, is tapping into its relationship with SCE to increase savings on power costs through energy efficiency and demand response initiatives.

The company operates close to a dozen major pump stations or terminals in SCE's service territory, transporting gasoline, diesel and jet fuel through pipelines which originate in the Los Angeles basin and serve terminals from Southern California to Las Vegas and Phoenix. Given that energy represents the largest individual cost of Kinder Morgan's Products Pipeline Group, the company makes energy management a priority.

"Anytime we have an opportunity to interact with SCE, we do," said Kinder Morgan Energy Forecaster Joel Hvidsten, noting the value of current SCE account manager James Trejo in providing assistance and information on energy-saving opportunities, and in listening to Kinder Morgan's input.



Pipeline transportation and energy storage firm Kinder Morgan participates in SCE energy efficiency and demand response programs to save on power costs at its Southern California facilities, including the Watson pump station in Carson.

"We run a very energy- and cost-conscious pipeline system," Hvidsten added. "Every expenditure is scrutinized. When we know we can save on power costs or reduce energy usage, that's a project we know we need to be involved with."

"Spectacular" Success With VFDs

A significant Kinder Morgan energy-saving project occurred at its Colton, Calif., pump station and terminal (near San Bernardino), where it installed a variable frequency drive (VFD) with incentive funding from SCE. Along with a myriad of smaller pumps and motors for local distribution activities, the facility includes two 3,000-horsepower mainline pipeline pumps used to move refined petroleum products from Colton to Phoenix. Hvidsten said that, due to the various operating constraints on the pipeline, running both pumps often created too much volume or pressure, while running one didn't create enough.

"Now," he said, "we run one pump at full capacity and only run the second pump to the capacity needed by the pipeline system...usually it's at about 50%. Without the VFD, the second pump will run at full capacity [regardless of demand]. The VFD allows us to maximize efficiency by reducing the amount of power supplied when needed. It saves us a lot of money and energy and it's been spectacularly successful."

Hvidsten noted that Kinder Morgan has previously installed VFDs at other local facilities, and continues to use drag reducing agent (DRA) to reduce energy loss from friction in its pipelines. DRA, a petroleum compatible product, is injected in minute quantities into the refined petroleum products shipped by Kinder Morgan. DRA reduces pipeline turbulence, which as a consequence also reduces the pumping energy needed to transport the products shipped.

The company also plans to involve SCE and its energy efficiency programs in assessing and improving the operational efficiency of pipeline pumps, which may become less energy-efficient with age. In addition, Kinder Morgan closely examines how and when it uses its pumps relative to Time-of-Use electric rates to optimize its energy usage and cost.

Continued Demand Response Savings

Adjusting when it operates its pumps ties into Kinder Morgan's participation in demand response programs like the Time-of-Use Base Interruptible Program (TOU-BIP) and the Demand Bidding Program (DBP).

Under TOU-BIP, Kinder Morgan receives a monthly credit for committing to reduce load to a pre-determined level during state-initiated interruption events. Through the DBP, the company gets the opportunity to receive bill credits for voluntarily reducing load when a DBP event is called. Each year the company holds a training session with its controllers on how to handle program curtailments.

"We've been very pleased with our involvement for years with TOU-BIP. We joined DBP about five years ago and have had 100% success," Hvidsten said, concluding, "We're always looking for ways to save energy and money."

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.