

Renewing California's Essential Electricity Infrastructure

Demand for power continues to grow throughout the region served by Southern California Edison (SCE). SCE customers have set nine demand records since 2003. To keep pace with growing peak demand, and ensure future service reliability, SCE is executing major infrastructure expansion and replacement projects. The company is investing up to \$21.5 billion over the next five years to expand and renew the region's essential distribution and transmission grids, making the power grid greener and smarter for nearly 14 million Californians.

Infrastructure Project Goals

- Increasing power delivery capacity and system reliability
- Accessing untapped renewable energy resources
- Accessing lower-cost import power
- Reducing system congestion and related customer costs



Expanding California's Power Super Highway

The projects that comprise SCE's \$5.5 billion transmission expansion program will ensure that Californians have the solid,

robust transmission system essential to bringing new sources of renewable energy to a dynamic, growing region. SCE recognizes the importance of tapping into renewable energy sources to help California meet its goal for a clean, green energy future. That commitment is exemplified by SCE's historic Tehachapi Renewable Transmission Project, one of the nation's largest grids designed specifically to tap renewable energy sources. When completed in 2015, the network will be capable of delivering enough power to serve almost 3 million households. SCE is pursuing construction of other major renewable projects, such as Devers-Palo Verde 2 (California portion) and Eldorado-Ivanpah.

Enhancing Community Distribution Grids

To expand and strengthen its power delivery system and support the customers within the region it serves, SCE is investing \$10.9 billion over the next five years on its local distribution network. In the process, SCE is creating one of the nation's most advanced grids, including:

- Upgrading computer systems that dispatch repair crews and restore service more efficiently
- Installing pioneering technology to enable enhanced, automated monitoring of grid conditions, minimizing the number of customers affected by power failures and limiting damage to grid components
- Exploring emerging technologies that promise greater reliability, longer life and reduced customer costs

Infrastructure Scope

SCE operates approximately 104,400 miles of distribution circuits and more than 900 substations, delivering power to approximately 4.9 million homes and businesses.

As part of its major infrastructure expansion and replacement project, during 2010 SCE expects to:

- Replace thousands of distribution and transmission structures reaching the end of their expected life
- Build miles of high voltage transmission lines
- Replace miles of primary underground cables
- Replace a number of substation transformers
- Build additional distribution circuits
- Expand the capacity of several distribution substations

Proposed and approved transmission projects:

