



CONTROL CENTER



GRID RELIABILITY IS A 24-HOUR-A-DAY JOB requiring California ISO operators to assess the status of the transmission system at all times. The ISO operates two control centers on a 24/7 basis with at least 12 grid operators on shift around the clock. Folsom, California is home for the organization's 17,000 square foot main control center. A second center in southern California is a fully-functioning facility, ready within minutes to assume control of the ISO. As one of three Reliability Coordinators for the Western Electricity Coordinating Council (WECC), the California ISO also monitors transmission activity for a portion of 14 western states, Alberta, British Columbia and northern Mexico.



HIGH-TECH VISUAL DISPLAYS dominate the control centers in Folsom and Alhambra. These video and mosaic display systems allow operators to assimilate large volumes of information at a glance:

- **A giant mosaic map board** provides an instant overview of where electrons are flowing on the system. Dynamic indicators show what circuits are closed or open and the status of key power plants and substations. This enables the ISO to monitor the security and transmission reliability of California's high-voltage lines as well as those extending into neighboring states and portions of Canada and Mexico. Critical information on the map board is updated every four seconds.
- **Four large video projection screens** provide further system detail by displaying transmission data across a 180-degree horizontal viewing angle. Control Room operators set these screens to display: operational data regarding the ISO Control Area and western region; satellite monitoring of area weather conditions; and news broadcasts about natural disasters and other emergencies that could affect the grid.



MAKING SENSE OF THE MAP BOARD

Power Lines

Orange	1,000 kilovolts (DC)	Blue	230 kilovolts (AC)
Red	500 kilovolts (AC)	Yellow	115-138 kilovolts (AC)
Green	345 kilovolts (AC)		

Circuit Lights

Red	Closed circuit
Green	Open circuit

Digital Readouts

Show voltages, generation loads, frequency and power flows