Summer grid outlook identifies local reliability concerns for Southern CA during heat waves

FOLSOM, Calif. – The 2013 summer assessment released today by the California Independent System Operator Corporation (ISO) forecasts an adequate supply of electricity for most of California. However, the shutdown of the 2,200 megawatt (MW) San Onofre Nuclear Generating Station (SONGS) continues to heighten reliability concerns in Southern California this summer.

For the purpose of upcoming summer power projections, both SONGS units 2 and 3 are assumed to be unavailable, there is no supply coming from the Huntington Beach units 3 and 4 following retirement of the units, and a growing economy increases electricity peak demand by more than two percent as compared to last year. For these reasons, the summer assessment notes the reliability risks to southern Orange and San Diego counties are “marginally more challenging” this summer, but still within planning standards.

A coordinated industry contingency plan developed by local utilities, state energy agencies and the ISO includes converting the retired Huntington Beach units to synchronous condensers, which will provide critical voltage support. The equipment along with newly installed transmission upgrades in the Los Angeles Basin will increase the ability of local transmission lines to carry increased imported power into the area.

However, the ISO cautions that heat waves complicated by higher than expected power plant outages in key areas of Southern California or transmission limitations triggered by wildfires or other reasons could challenge grid reliability, especially in the areas affected by the SONGS outage -- southern Orange and San Diego counties. During these peak periods, ISO operators will count on customers participating in local demand response and conservation programs to help out during rapidly changing grid conditions.

“We ask consumers to watch for Flex Alerts on TV and radio and conserve electricity to ensure enough power for everyone,” said ISO President and CEO Steve Berberich. “Californians can do their part to help relieve the stress on the system by reducing their electricity use during the afternoon peak created by air conditioning. We thank them in advance for responding when Flex Alerts are issued.”

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Meanwhile, under normal summer conditions there is an adequate supply of electricity resources for the rest of the system-wide ISO grid although the drought this year will limit typical hydroelectricity levels by more than 1,000 megawatts (MW). The snowpack water content, as measured on May 2, 2013, was 17 percent of average statewide for that date, 16 percent for northern portions, 23 percent for central California and 9 percent for the southern region.

Operating reserve margins could narrow from about 20 percent down to 7 percent in Northern California during extreme conditions, but above the level that puts customers at risk of power outages. In Southern California, the cushion could drop to 6 percent during high peak demand, but is still expected to be above the 3 percent reserve level at which service interruptions could occur.

The system-wide peak electric demand is expected to reach 47,413 MW during summer 2013, which is 738 MW more than the actual peak of 46,675 MW in 2012. The all-time record peak demand was 50,270 MW in 2006.

There is an estimate of 51,068 MW of power plant capacity available this summer within the ISO grid, which includes new generation. From June 1, 2012 to April 1, 2013, a total of 2,502 MW has come on line and an additional 891 MW is expected to energize by June 1, 2013. Twenty-four percent of the new power plant supply comes from wind and solar power, which will help the state achieve its 33 percent by 2020 green power goal.

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