California Assembly Utilities and Commerce Committee Briefing Paper on Summer 2012 Electricity Reliability

Abstract

This paper discusses the State's preparedness for providing power in the event that one or both units at the San Onofre Nuclear Power Station are not in operation during the Summer of 2012.

Background

In January 2012, Southern California Edison (SCE) shut down both electric generation units at the San Onofre Nuclear Generation Station (SONGS). One was shut down for planned maintenance and the other as a result of a leak in a generator steam tube. It is possible that one or both of the units at SONGS will remain offline through this summer, which raises questions about whether there will be sufficient alternate sources of electricity this summer.

SONGs can produce enough electricity to meet the needs of 1.4 million homes (2,200 megawatts of power, MW). SONGs also provides the nearby regions of San Diego and the Los Angeles Basin with 'voltage support.' Voltage support is similar to water pressure in a water system. Voltage keeps electrons flowing to their destination.

The oversight of the state's electricity supply and demand, transmission operation, and utility regulatory oversight is trifurcated among state agencies and one non-profit California Corporation:

- California Energy Commission (CEC): electricity supply and demand forecast, permitting for thermal power plants 50MW and larger.
- California Public Utilities Commission (PUC): regulatory oversight of electrical corporations, permitting of transmission facilities, electricity procurement planning and implementation.
- California Independent System Operator (CAISO): management of transmission systems for reliability, access, and wholesale market transactions. CAISO operates within its regional boundaries. CAISO is also known as a 'Balancing Authority.' CAISO's boundaries include areas served by PG&E, SCE, SDG&E, as well as several publicly owned utilities (these publicly owned utilities are members of the Northern California Power Authority and known as the NCPA pool: City of Alameda, City of Biggs, City of Gridley, City of Healdsburg, City

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¹ CAISO is one of several Balancing Authorities in California. Publicly Owned Utilities in California are serving as Balancing Authorities, with responsibilities similar to CAISO: Imperial Irrigation District (IID), and Turlock Irrigation District (TID), and the Los Angeles Department of Water and Power (LADWP). Other Balancing Authorities serving California are: PacifiCorp-West, Bonneville Power Authority, Balancing Authority of Northern California (BANC), Sierra Pacific Power, Nevada Power Company, and Western Area Lower Colorado (WALC).

of Lodi, City of Lompoc, City of Palo Alto, Plumas Sierra Rural Electric Cooperative, Port of Oakland, and the City of Ukiah).

Note that California's publicly owned utilities are governed by their elected Boards of Directors and not regulated by the PUC.

Questions to the CEC, CPUC, and CAISO

- 1. What steps are being taken or should be taken to assess whether the state will have sufficient electricity supplies to meet its needs?
- 2. What steps are being taken or should be taken to ensure sufficient voltage support is available, particularly for the San Diego and Los Angeles Basin regions?
- 3. To what extent are the CEC and PUC coordinating with Publicly Owned Utilities?
- 4. To what extent is the CAISO coordinating with Balancing Authorities that might be impacted by a power outage or may have a role in delivering electricity to areas within the CAISO boundaries?
- 5. What, if any, likelihood is there for market manipulation to occur that would result in price spikes and what steps should be taken to prevent it?
- 6. Are there steps or actions that should be taken to help reduce electricity consumption or curtail demand?
- 7. Are there steps or actions that should be taken to help prepare customers for outages, particularly those with medical or special needs?
- 8. Are there steps or actions that should be taken to help prepare municipal water or waste agencies for outages?