



Background: Southern California Reliability

2014 Integrated Energy Policy Report
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Michael R. Jaske

Energy Assessment Division

Mike.Jaske@energy.ca.gov / 916-654-4777

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Background

- OTC policy was adopted by SWRCB in May 2010 with compliance dates linked to known replacement projects
- Multi-agency effort to develop infrastructure plans for Southern California facilities
- January 2013, SONGS units shutdown
- For summer 2012, HB Units 3-4 brought back
- For summer 2013, HB Units 3-4 converted to synchronous condensers and ISO/utilities begin installation of reactive power equipment at selected substations

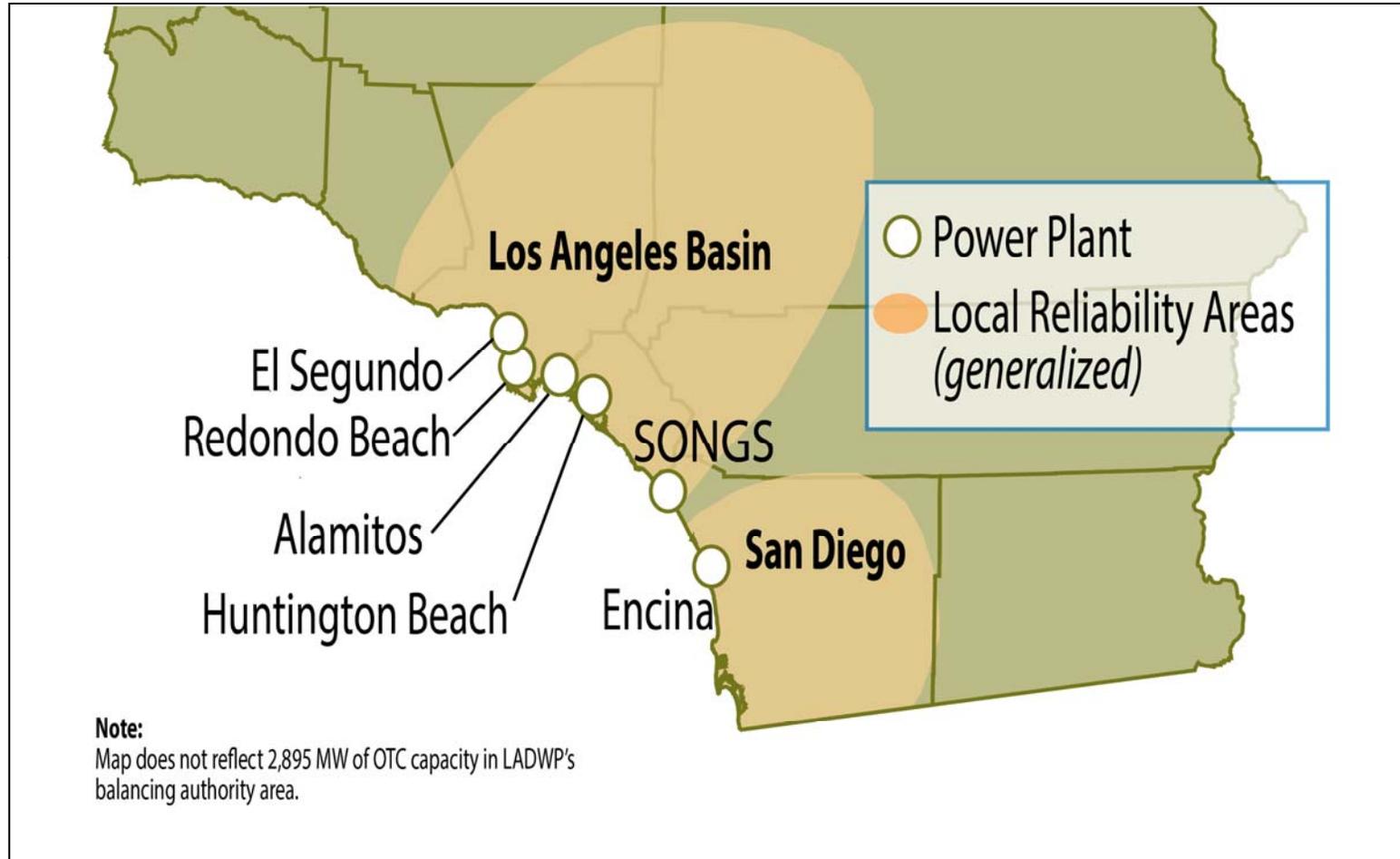


Addn'l Background

- Retirement of SONGS on June 7, 2013
- Governor's Office called upon energy agencies, utilities and others to develop a plan within 90 days
 - Multi-agency review of options to assure reliability
 - *Preliminary Reliability Plan for LA Basin and San Diego* developed by multi-agency team was reviewed in September 2013 at a CEC workshop as part of 2013 IEPR proceeding
- CPUC (2012 LTTP) and CAISO (2013-14 TPP) both made policy decisions in March 2014 that implement some of the concepts in the *Preliminary Reliability Plan*



Los Angeles Basin and San Diego





Multi-Layered Problem

- Energy agencies have realized fossil OTC plants needed to be replaced since 2008
- SONGS closure and retirement exposed vulnerability of San Diego/LA Basin area to voltage instability
- Transmission system upgrades providing reactive power to allow greater flexibility in resource location reduce local capacity requirements, but do not provide real power or energy to replace lost units
- GHG emission reduction goals accentuate an interest in preferred resource solutions



Implementing Reliability Solutions

- Agencies are pursuing resource development according to their fundamental responsibilities:
 - Preferred Resources (CPUC)
 - Authorized generation procurement (CPUC)
 - Generation facility permitting (CEC)
 - Transmission planning (ISO)
- Contingency mitigation will involve all agencies



Resource Authorization (CPUC)

- D.14-03-004 (and previous) authorized both preferred and conventional generation resources
- Preferred (EE, DG, DR, etc.):
 - SCE: 550 – 1450MW
 - SDG&E: 175MW
- Conventional generating capacity:
 - SCE: up to 1500MW
 - SDG&E: up to 943MW
- Details of preferred programs and PPAs are evolving



Power Plant Permitting (CEC)

- Energy Commission is reviewing replacement applications for all existing OTC facilities in San Diego and LA Basin
- District AQ permits and USEPA GHG permits may influence choice of gas-fired technology and operations



Transmission System Upgrades (CAISO)

- CAISO's initial focus has been on upgrades that provide reactive power – thus reducing LCR in San Diego and LA Basin
- CAISO Board has approved several projects in its 2012-13 TPP and 2013-14 TPP
- Some projects are sufficiently large that a CPUC CPCN will be required, while others can proceed simply upon CAISO approval
- Additional transmission line expansion projects are still being studied but have not been approved



Contingency Mitigation Measures

- Mitigation measures are a backstop to assure reliability if preferred resources, authorized generation or transmission are delayed or cannot be acquired
- For preferred resources and transmission, shortfalls may be satisfied by substitute projects
- For aggregate shortfalls, three options being evaluated:
 - OTC compliance date deferral requests to SWRCB
 - IOU targeted renewable DG program
 - Conventional gas-fired projects permitted and procured, but not developed unless triggered
- Mitigation is triggered by expected LCR shortfalls



QUESTIONS?