

# **Briefing on San Onofre Nuclear Generating Station, Units 2 & 3 Retirement Plans**

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## SONGS Status

- As announced on June 7, both units of SONGS are being retired
  - A certification of permanent cessation of power operations has been submitted to the NRC
  - Preliminary planning for permanent shutdown and decommissioning SONGS is underway
- SONGS 2 & 3 provided power to Southern California for 30 years, supported by many dedicated employees
- “...the continuing uncertainty about when or if SONGS might return to service was not good for our customers, our investors, or the need to plan for our region’s long-term electricity needs.”

# SONGS Retirement

- Nuclear Safety
  - As always, we will continue to operate SONGS's remaining systems safely, to the highest standards, to protect the health and safety of the public and our employees
- Key SONGS Issues
  - Decommissioning
  - Staffing
  - Used Fuel Storage
  - Seismic
  - Once Through Cooling
- Grid Reliability
  - Short term considerations
  - Longer term considerations

# SONGS Issues

- Decommissioning
  - Long process over many years
  - Removal of radioactive material from site and storage of used fuel in approved dry cask containers
  - Funded by SONGS decommissioning trust
    - Current SCE trust is \$2.7 Billion
    - Re-evaluating estimate in light of retirement decision
- Staffing
  - Staffing will be reduced from about 1500 to 400
    - Mostly this year
    - Transition plans will ensure orderly and compliant plant closure
  - Working with unions and Human Resources for a fair transition plan
  - Evaluating contractor support on a case-by-case basis

# SONGS Issues

- Used Fuel Storage
  - Assemblies in wet storage - 2346
  - Assemblies in dry cask storage - 792
  - Removal of Unit 2 fuel from the reactor will begin in July
  - Movement of used fuel from pools to dry cask storage will occur over the next 7 – 12 years
  
- Seismic
  - Research (e.g., GPS, shallow surveys, seismometers)
    - The seismic reliability evaluation of SONGS required by AB 1632 was completed and provided in our February 2011 Report
    - Current seismic activities are under review and likely will be terminated
  - Analysis of seismic data
    - Support of NRC's 50.54(f)
    - Assessing what analysis is required for support of used fuel pools and dry cask storage facility

# SONGS Issues

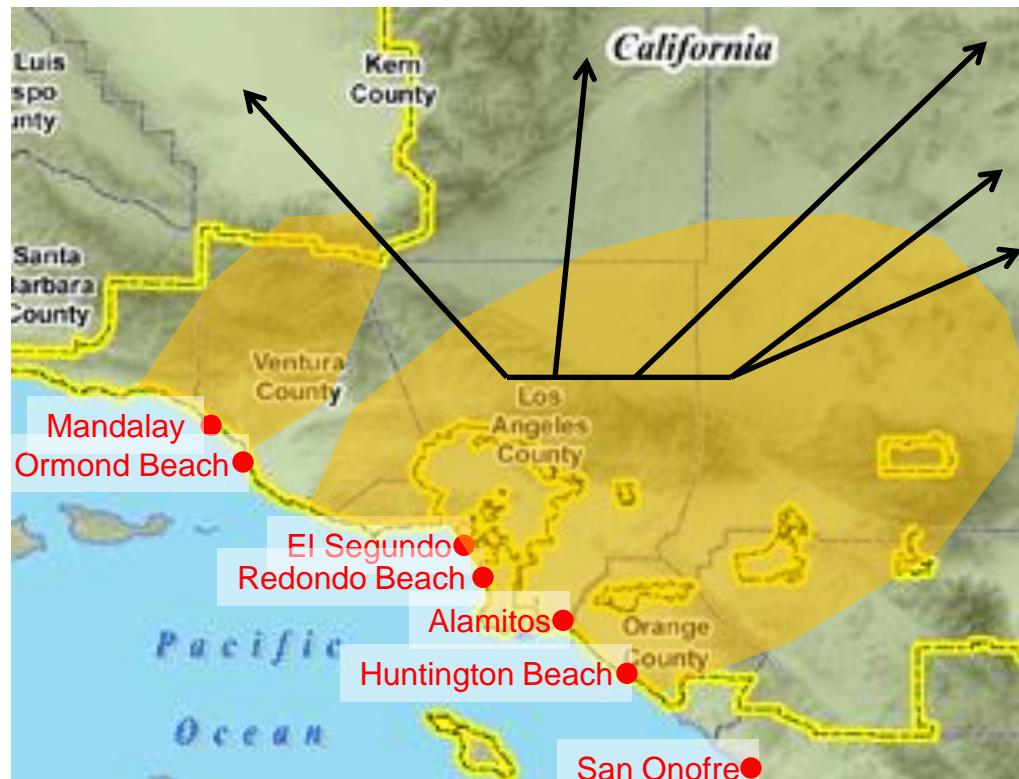
- Once Through Cooling
  - Flow through the intake and discharge conduits will be approximately 25% of that at full power operations
    - Required for used fuel pool cooling
    - May be required during decommissioning
  - Project Activities
    - OTC Nuclear Special Studies
      - No need to continue the study for SONGS
      - Implementation of selected technology is post 2022
    - Large Organism Exclusion Device
      - Assessing scope

# Short Term Reliability Considerations

- SCE & SDG&E have been actively pursuing steps to provide reliable power to our communities during the summer months without SONGS
- We've worked with CAISO and CPUC since early last year
- No power outages or incidents last year
  - Moderate summer
  - Demand Side Resources
  - Generation and transmission projects
- Summer readiness plan for this year
  - New generation
  - Transmission projects
  - Demand Side Resources
  - Communications and Outreach

## Longer Term Reliability Considerations: Local Reliability in the LA Area

- **SCE Service Territory Generation Reductions**
  - Fossil OTC retirements 6,592 MW
  - SONGS retirement 2,150 MW
  - Total 8,742 MW
- Recent CAISO studies show a need for 3,000-4,600 MW of “West LA Basin” generation to replace OTC plants and the SONGS retirement
- The local transmission grid (220kV) was built to serve load using coastal generation
- Re-powering at beach sites may face stiff opposition
- As a non-attainment area, AQMD rule 1304 is one of the few sources of emissions offsets for new generation





## Longer Term Reliability Considerations: Resource Mix

- Aggressive use of preferred resources
  - Use of living pilots to learn how to drive deeper preferred resource penetrations and develop better understanding of efficacy and grid operational impacts
- New and Upgraded Transmission
  - Development or upgrade of lines and substations to better move power, development of reactive support as needed
- Targeted Generation
  - Construction of fossil generation in targeted locations to support grid reliability and provide a backstop to pursue higher levels of preferred resources

## **Longer Term Reliability Considerations: Any Solution is Multi-Jurisdictional**

- Federal Law - CWA 316(b)
- State Regulations - SWRCB OTC Policy
- Reliability Assessment – CAISO
- Power Plant Permitting – Energy Commission and the Application for Certification process
- Determination of Need for IOUs – Public Utilities Commission and the Long Term Procurement Plan
- Air Permitting (Clean Air Act) – South Coast AQMD (Rule 1304) and other APCDs
- OTC Impacts on Reliability - California Assembly Bill 1318 Study
- Local Zoning – Redondo Beach Measure A (Rezone to 60-70% parks and 30-40% commercial/industrial)