Decommissioning Update
San Diego Water Board

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WORKING DRAFT 6/5/18
Decommissioning Principles

Southern California Edison and co-owners committed to:

Safety
Stewardship
Engagement
Project Location

• Located in San Diego County, halfway between Los Angeles and San Diego

• SONGS onshore facilities located on Marine Corps Base Camp Pendleton

• Offshore facilities on tidal and submerged lands managed by California State Lands Commission (CSLC)
San Onofre Plant Status

• **Unit 1 retired 1992**
  - Most onshore decontamination & dismantlement is complete
  - Fuel storage facility (ISFSI) constructed 2000
  - Offshore conduits dispositioned 2014, CSLC offshore lease termination in process

• **Units 2 & 3 retired June 2013**
  - NRC submittals filed Sept 2014
  - Offshore conduit lease modification application filed with CSLC Nov 2015
  - Expanded ISFSI completed Jan 2018
  - Transfer of spent nuclear fuel to expanded ISFSI commenced Jan 2018
Regulatory Overview

Once a utility declares cessation of operation, specific activities are governed by NRC Regulations 10 CFR 50.82 with specific time periods:

- Decommissioning Planning (2 years)
- Decommissioning
- License Termination (2 years)

60 Years
SONGS Trusts Fully Funded

- Site Restoration: $1.274
- Spent Fuel Management: $1.449
- License Termination: $2.024

- Total estimate = $4.747 Billion (100% share, 2017$$)
- Current trust fund balances expected to fully fund decommissioning
Decommissioning Activities and Schedule

• Major activities completed
  – Met all US NRC requirements by 3Q 2015
  – Evaluated and selected a Decommissioning General Contractor (DGC): January 2017
  – Completed construction of an expanded Independent Spent Fuel Storage Installation (ISFSI): January 2018

• Major activities in-progress
  – CA Environmental Quality Act (CEQA) review and Coastal Development Permit (CDP): Target Q4 2018
  – Transfer used fuel to Independent Spent Fuel Storage Installation (ISFSI): Target mid-2019
Decommissioning Plan

Approved ISFSI (2015 to 2035)
Ongoing ISFSI operation and maintenance approved under existing CDP

Proposed Project (2019 to 2028) – Analyzed in EIR
Prompt D&D of onshore facilities to meet NRC requirements for unrestricted use of site and disposition offshore conduits

Future Activities (~2035) – Subject to future CEQA and NEPA reviews
ISFSI removal, additional substructure removal (Units 1/2/3), shoreline structure disposition (seawall, walkway, and riprap), and final site restoration (2035 or later)*

* Subject to availability of suitable offsite fuel storage facility
State Agency Approvals for D&D

• CSLC EIR and Offshore Lease
  – As CEQA lead agency, CSLC reviewing potential environmental impacts of Proposed Project (onshore & offshore)
  – Determining final disposition for offshore conduits
  – Considering SCE’s lease application for offshore conduits and riprap through 2035

• CA Coastal Commission (CCC) Coastal Development Permit
  – Responsible agency as part of CSLC’s CEQA review
  – Develop staff report for decommissioning – expected to rely heavily on CSLC EIR
  – Issue CDP for decommissioning
Other Areas of Interest
SEA LEVEL RISE (SLR)
Purpose of Study

- To better understand interaction between coastal processes and SONGS substructures after removal of the seawall
- To inform SCE’s end-state proposal to the Navy as landowner
- Planning tool that helps estimate future conditions at site when fuel and seawalls are removed
Sea Level Rise Inputs

- Utilized 3 Sea Level Rise (SLR) guidance documents (4 projections)
SLR Agency Projections

- Future projections vary substantially and are bounded by the DoD scenarios
- Global sea level is rising and likely that it will continue to do so at an accelerating rate into the future
Key Takeaways for SONGS

• Effects of coastal processes on the site are negligible until seawalls are removed
• After removal of the seawalls in 2051, the rate and magnitude of retreat of the cliff face is strongly correlated with the rate of sea level rise
• In the long term, coastal processes will impact remaining onshore substructures at SONGS
SONGS Site
SCE’s Spent Fuel Management Strategy

- Safely manage and store San Onofre’s spent nuclear fuel until it is removed from site
- Promptly offload fuel from pools to passive dry cask storage
- Recover spent fuel storage costs from DOE
- Support all safe and reasonable options to remove spent nuclear fuel from San Onofre site
Fuel Assembly
Spent Fuel Pool
“Wet” Storage
SONGS Independent Spent Fuel Storage Installation (ISFSI)

Provides Passive Dry Storage for Spent Fuel

AREVA System
(50 spent fuel canisters)
CDP Approved June 2001

Holtec System
(73 spent fuel canisters)
CDP approved Oct 2015
On-site Spent Fuel Storage

INITIAL STATE

Spent Fuel Pools
2668 fuel assemblies

Existing ISFSI
50 canisters (1187 fuel assemblies)

EXPANDED ISFSI

73 canisters¹ (2668 fuel assemblies) + existing 50 canisters (1187 fuel assemblies)

FUTURE STATE

3855 fuel assemblies in 123 canisters

¹Link to Fuel Transfer Video: Fuel Transfer Video

Note 1: As of May 15, 2018 eleven canisters (407 fuel assemblies) have been loaded onto the expanded ISFSI
# Used Fuel Readiness for Transportation

- Some fuel qualified for transport now
- Remaining fuel qualifies over time

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Community Engagement
San Onofre Community Engagement Panel

• Created in 2014 to serve as an open conduit between the public and the utility
• Eighteen representatives from surrounding cities and counties, including:
  - Elected officials and agency representatives
  - Representatives of the U.S. military
  - Local environmental organizations
  - Local law enforcement
  - Business and labor communities
  - Local schools and academic institutions
 Visitors

Since 2014, 2000+ visitors including:

- The Public - walking tours twice monthly
- High school students, teachers and parents
- California Energy Commission
- Members of Congress: Darrell Issa (R-49), Scott Peters (D-52), Mimi Walters (R-45); John Shimkus (R-IL)
- Native American Tribal Nations
- City of San Diego Fire Department
- Orange County Coastkeepers
- Ocean Institute
- San Diego Union Tribune
- Sierra Club, Los Angeles and San Diego Chapters
- Surfrider Foundation

More information on www.SONGScommunity.com
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