



# DECOMMISSIONING & SITE RESTORATION OF SAN ONOFRE NUCLEAR GENERATING STATION

Since Southern California Edison (SCE) announced in June 2013 it would permanently retire the San Onofre Nuclear Generating Station (SONGS), significant progress has been made on preparations to decommission the plant. We have provided here an updated timeline for major events and common questions and answers about the decommissioning process.

# June 12, 2013 SCE notifies the Nuclear Regulatory Commission (NRC) it has permanently ceased operation of Units 2 and 3.

# July 2014 SCE transfers fuel from Unit 2 reactor to the spent fuel pool, triggering a federal license change to an NRC possession license from an NRC operating license.

#### September 26, 2014 NRC holds Public Meeting on Decommissioning Process.

## October 27, 2014 NRC conducts public meeting regarding PSDAR in Carlsbad, Calif.

## **December 2014**SCE awards Independent Spent Fuel Storage Installation contract.

## June 2015 NRC approves changes to San Onofre emergency planning requirements.

## **December 2016**SCE awards decommissioning contract to SONGSDS a joint venture between Energy *Solutions* and AECOM.

#### What is the status of the SONGS decommissioning project?

Safety remains our highest priority as we take steps to decommission the San Onofre Nuclear Generating Station (SONGS). We have completed numerous submittals to the Nuclear Regulatory Commission (NRC), including a decommissioning plan, cost estimate, environmental report, and fuel management plan. In October 2014, the NRC hosted a public meeting on the decommissioning plan, at which Southern California Edison (SCE) and SONGS co-owners announced three core principles that will guide the decommissioning process: safety, stewardship, and engagement. We also want to make sure decommissioning proceeds in an inclusive and forward-thinking way, with input from a broad range of stakeholders. That is why we created a Community Engagement Panel to advise us on decommissioning. This panel holds public meetings at least quarterly in communities near SONGS and encourages public involvement.



#### How long will decommissioning take?

The NRC requires that nuclear plants be decommissioned within 60 years. We intend to dismantle and decommission SONGS Units 2 and 3 near term. When we factor in up-front planning time, we expect decommissioning of San Onofre can be completed in approximately 20 years. Decommissioning activities should take between 6-8 years.

### Who pays for decommissioning and how much will it cost?

Decommissioning SONGS is expected to cost \$4.4 billion. The project is paid for with trust funds that were established early during the plant's operations. Based on forecasted escalation, the trust funds are fully funded. Customers contributed about one-third to the trust funds and the remaining two-thirds are earnings from investments overseen by a five-member board.

#### What's next?

We are continuing preparations to ensure plant equipment is de-energized and ready for dismantlement work, which may begin by late 2017, subject to regulatory approvals.

## Are there state environmental reviews for decommissioning SONGS in addition to the federal reviews?

The California State Lands Commission will serve as the lead agency for the California Environmental Quality Act (CEQA) review for the SONGS decommissioning project. This process began in November 2015 and is expected to continue through mid–2017.

### What will happen to the used nuclear fuel at SONGS?

We will continue to safely store used fuel on site, as we have for more than 30 years, following best industry practices and subject to ongoing NRC oversight. SONGS' safe and secure storage uses a combination of technologies— enclosed, steel-lined concrete pools filled with water (spent fuel pools) and sealed stainless steel canisters housed in reinforced concrete structures (dry cask storage). The California Coastal Commission in 2015 approved a Coastal Development Permit that enables us to expand dry storage of used nuclear fuel at SONGS. We intend to move all of the used nuclear fuel into dry cask storage by 2019. Storage in canisters is a key step as it facilitates transfer of used nuclear fuel to an off-site storage facility. We maintain on-site security measures at SONGS, as required by the NRC, to protect the health and safety of employees and the public.

### Will used nuclear fuel remain at the SONGS site even after decommissioning is completed?

Interim storage at nuclear plants such as SONGS is necessary because the federal government failed to fulfill its contractual obligations to open a permanent spent nuclear fuel repository. SCE, like other nuclear plant operators, successfully sued the federal government for this failure. SCE received \$112 million from the federal government, and has refunded the majority of the amount to customers. In addition, SCE, the SONGS Community Engagement Panel and a number of community stakeholders have aligned to support proposals to create interim storage facilities for used nuclear fuel in Texas and New Mexico.

### How much used nuclear fuel is stored at SONGS?

The uranium pellets that were used to generate power are in sealed fuel rods that comprise a used fuel assembly. SONGSs has 2,668 fuel assemblies in spent fuel pools in Units 2 and 3 and about 800 Unit 2 and 3 assemblies in dry storage. In addition, there are about 400 Unit 1 used fuel assemblies in dry storage. Combined, that's a total of 1,609 metric tons of used nuclear fuel at SONGSs.

## Do you continue to have emergency preparedness plans in case there's a radiological problem at SONGS?

The NRC approved a revised emergency plan for SONGSs in June 2015 that reflects the reduced risk at a permanently shutdown nuclear plant. Most potential accidents related to an operating plant are no longer possible at shutdown nuclear plants such as SONGSs where fuel has been removed from the reactor. However, the revised emergency plan maintains many of our prior operating emergency planning elements, including: around-the-clock, trained emergency personnel on site to address unanticipated events; radiological and environmental monitoring; drills and close coordination with off-site agencies.

### What happens to the land at SONGS after the nuclear plant is dismantled?

SCE leases the SONGSs land from the Navy and will return to it the Navy once decommissioning is complete, subject to NRC approval. Once SONGS' license has been terminated and the NRC has released the site for unrestricted use, the area can be used in any way permissible by federal, state and local laws.





