



City of Arts & Innovation

City Council Memorandum

TO: HONORABLE MAYOR AND CITY COUNCIL DATE: SEPTEMBER 21, 2021

FROM: PUBLIC UTILITIES DEPARTMENT WARDS: ALL

**SUBJECT: SAN ONOFRE NUCLEAR GENERATING STATION UNITS 2 & 3
DECOMMISSIONING PROJECT STATUS UPDATE AND RIVERSIDE'S
PARTICIPATION IN THE ACTION FOR SPENT FUEL SOLUTIONS NOW
COALITION**

ISSUES:

Receive an update on the status of the San Onofre Nuclear Generating Station Units 2 & 3 Decommissioning Project and approve the City's participation in the Action for Spent Fuel Solutions Now coalition.

RECOMMENDATIONS:

That the City Council:

1. Receive and file this status update on the San Onofre Nuclear Generating Station Decommissioning Project;
2. Approve the City's participation in the Action for Spent Fuel Solutions Now coalition;
3. Authorize the Mayor, a City Councilmember, a Board of Public Utilities member or the City Manager, or his designee, to represent the City of Riverside at meetings of and activities supporting the Action for Spent Fuel Solutions Now coalition; and
4. Authorize the City Manager, or his designee to execute all documents necessary to administer the participation in the Action for Spent Fuel Solutions Now coalition.

BOARD RECOMMENDATION:

On August 23, 2021, the Board of Public Utilities voted unanimously, with all members present, to recommend that the City Council receive and file a status update on the San Onofre Nuclear Generation Station Decommissioning Project; and approved the City's participation in the Action for Spent Fuel Solutions Now coalition with participation by the Mayor, a City Councilmember, a Board of Public Utilities member or City Manager, to represent the City of Riverside at coalition meetings.

BACKGROUND:

Riverside owns 1.79% of the San Onofre Nuclear Generating Station (SONGS) Units 2 & 3 located within Camp Pendleton on land owned by the U.S Department of Navy. SONGS Units 2 & 3 was a 2,250-megawatt nuclear generation facility consisting of two pressurized water reactors, which commenced operation in 1983 and 1984, respectively. While operational, SONGS Units 2 & 3 provided 39 megawatts of capacity and approximately 15% of the City's annual energy requirement. SONGS is co-owned by the City of Anaheim, City of Riverside, San Diego Gas & Electric Company, and Southern California Edison (SCE). The operation of SONGS is governed by the Nuclear Regulatory Commission (NRC).

On June 7, 2013, SCE announced its decision to cease power generation operations and permanently retire SONGS Units 2 & 3. SCE concurrently submitted a Certification of Permanent Cessation of Power Operation to the NRC, surrendering SCE's authority to operate the units, and began decommissioning. Decommissioning is a well-defined NRC process that involves transferring the spent fuel into safe storage, followed by the removal and disposal of radioactive components and materials.

The Board of Public Utilities and City Council approved the SONGS Decommissioning Agreement on February 20, 2015 and March 3, 2015, respectively, which set forth the decommissioning process and Riverside's decommissioning obligations. The SONGS Decommissioning Agreement provides a governance structure whereby co-owners have equal voting rights in each of the four governing committees: Executive, Budget, Fiscal and Legal.

All major decommissioning decisions within each committee's purview must be unanimously agreed to among committee members. The equal and unanimity voting provision protects minority share participants such as Riverside.

DISCUSSION:

Decommissioning Cost Estimate (DCE)

In accordance with the California Nuclear Facilities Decommissioning Act of 1985, SCE is required by the California Public Utilities Commission (CPUC) to update the SONGS Units 2 & 3 Decommissioning Cost Estimate (DCE) every three years. In December 2014, SCE submitted its first DCE to the CPUC. The estimated decommissioning cost in the SONGS 2014 DCE was approximately \$4.411 billion in 2014 dollars. Riverside's proportionate share was \$79 million.

In March 2018, SCE submitted the SONGS 2017 DCE to the CPUC, which reflected the actual costs and all updated project progress from SCE's decommissioning activities since the 2014 DCE. The estimated decommissioning cost in the SONGS 2017 DCE was approximately \$4.479 billion in 2014 dollars. SONGS 2020 DCE is currently being developed and staff will provide an update to the Board when the new estimate is completed.

Trust Fund and Additional Decommissioning Liability Reserve

Nuclear power plants are required by the NRC to set aside funds for decommissioning while the plant is operating. Consistent with NRC regulations, Riverside had set aside funds to pay for its share of SONGS Units 2 & 3 decommissioning obligations in certain restricted trust accounts while the plant was operational. On March 8, 1991, Riverside entered into a Decommissioning Trust Fund Agreement with the Bank of California (now US Bank) to meet the NRC's requirements

for financial assurances and began depositing funds into the accounts. Under the terms of the Decommissioning Trust Fund Agreement, the trust funds can only be used for decommissioning related activities. Prior to accessing the trust funds for decommissioning, the Board and City Council adopted a Resolution, which was approved on January 22, 2016 and February 23, 2016, respectively. The Resolution authorized access to the decommissioning trust funds to pay for Riverside's share of SONGS decommissioning costs.

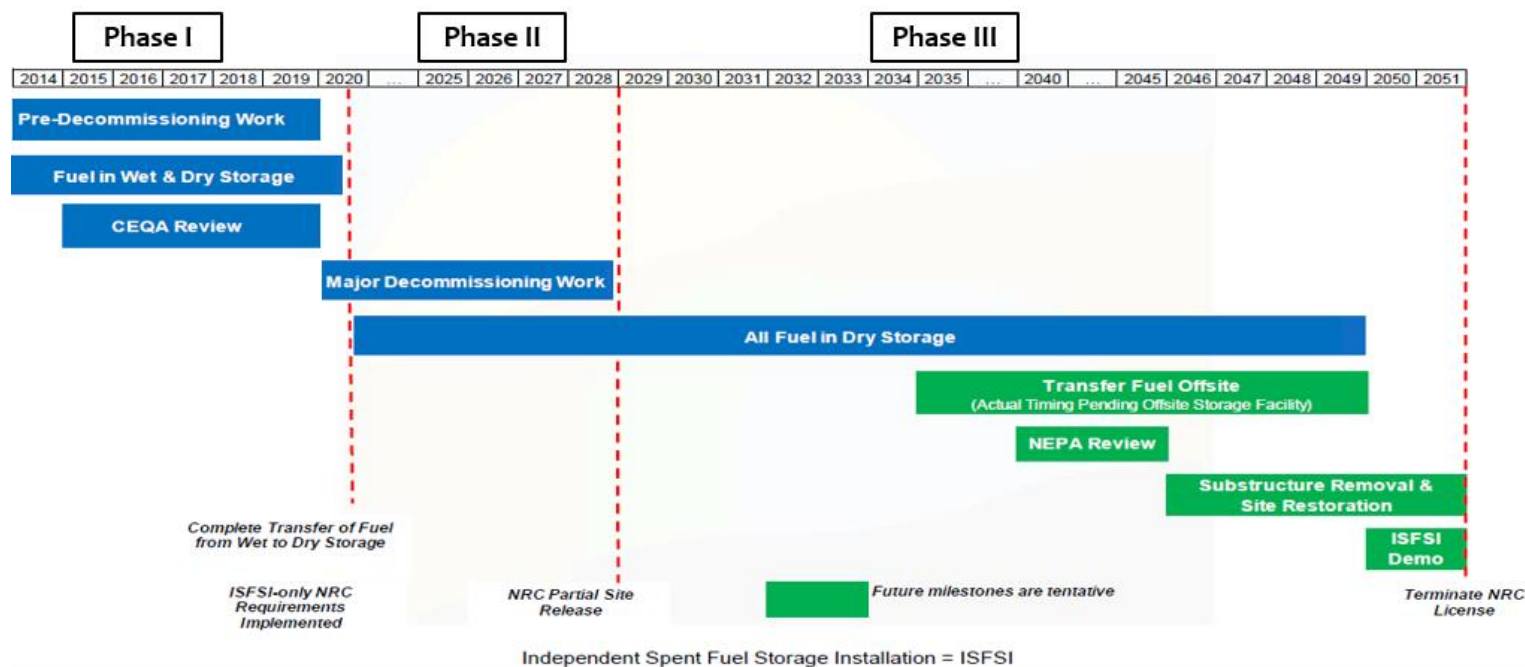
Due to the uncertainties around future decommissioning costs on a project that could potentially span across a 50-year period, the City, in 2013, established an unrestricted, designated reserve account, the Additional Decommissioning Liability Reserve, in the Electric Fund with an annual funding of \$1.6 million. The funding amount was subsequently increased to \$2 million annually beginning in Fiscal Year 2020-2021, upon approval by the Board and the City Council on June 1, 2020 and June 16, 2020, respectively.

SONGS Co-owners are responsible for their share of the decommissioning obligations based on the Decommissioning Cost Estimate and are required to demonstrate that sufficient funds are in their respective decommissioning trust accounts each year. Based on the most current SONGS 2017 DCE, Riverside is fully funded for its share of SONGS Unit 2 & 3's decommissioning costs. As of June 30, 2021, Riverside's SONGS Decommissioning Trust Fund Accounts (Restricted), on deposit with US Bank, have a balance of \$49 million and the SONGS Additional Decommissioning Liability Reserve (Unrestricted) has a balance of \$14 million.

SONGS Decommissioning Project Phases

The SONGS Decommissioning Project is divided into three (3) key phases:

- Phase I – Transition and Planning – January 2017 through August 2020 (Completed)
- Phase II – Decontamination and Dismantlement – August 2020 through December 2028 (In Progress)
- Phase III – Transfer Spent Nuclear Fuel Off-site and Final Site Restoration – January 2029 through December 2053 (Future)



Phase I – Transition and Planning – January 2017 through August 2020 (Completed)

Immediately following SCE's decision to permanently retire SONGS Units 2 & 3 in 2013, SCE began to prepare and formulate plans for decommissioning. Activities during this period included: preliminary decommissioning planning, commencing the expansion of on-site Independent Spent Fuel Storage Installation (ISFSI), procuring a Decommissioning General Contractor (DGC), obtaining the Coastal Development Permit, and completing the spent fuel transfer operation from wet pools to dry storage. SCE was designated as the Decommissioning Agent for the project, performing safety, financial and regulatory compliance oversight on all decommissioning-related activities.

In December 2014, through a competitive bidding process, SCE awarded Holtec International, Inc. (Holtec) to lead the efforts in the licensing, design, and construction of an expanded on-site ISFSI.

In December 2016, through a separate competitive bidding process, SCE selected a joint venture of AECOM and EnergySolutions as the DGC for SONGS; also known as SONGS Decommissioning Solutions (SDS). SDS is tasked to perform decontamination, dismantlement, demolition, and disposal work at SONGS during Phase II.

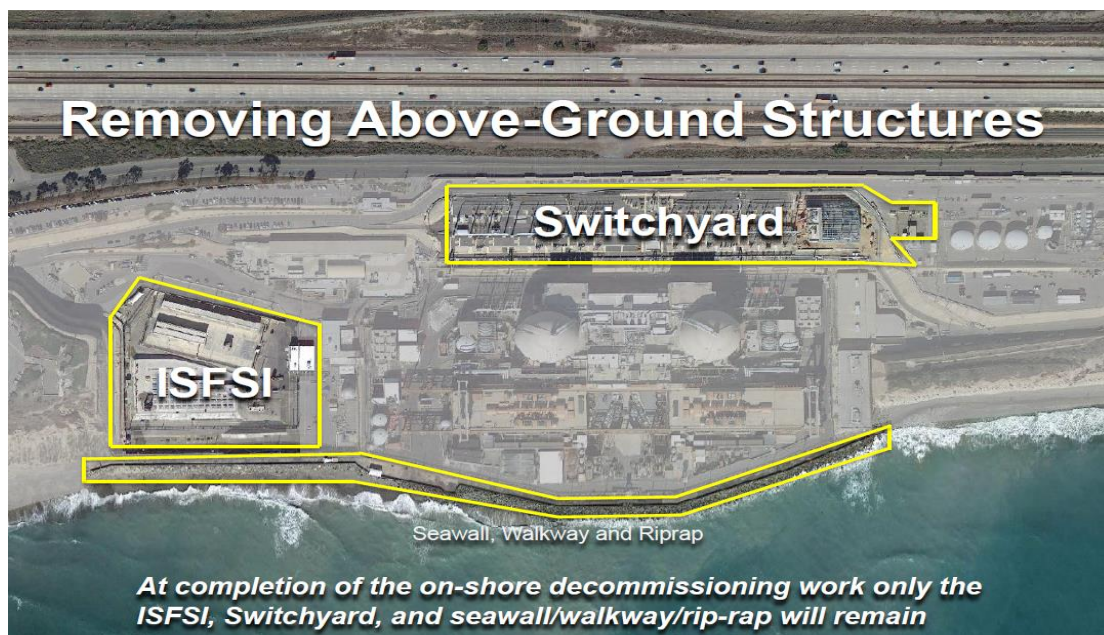
The Coastal Development Permit (CDP), which is required before SDS can perform major demolition activities, was approved by the California Coastal Commission (CCC) in October 2019.

On August 7, 2020, SONGS Units 2 & 3 fuel transfer operation was successfully completed upon the transfer of all 73 canisters of spent fuel to the ISFSI.

Phase II – Decontamination and Dismantlement – August 2020 – December 2028 (In Progress)

After the completion of the fuel transfer operations, SCE provided a Notice to Proceed to SDS on August 21, 2020, allowing SDS to commence major decontamination and dismantlement work for SONGS Units 2 & 3 under Phase II. The scope of work includes decontamination, dismantlement and demolition of most SONGS Units 2 & 3 structures to approximately 3 feet below grade, and disposal of all resulting waste.

Phase II is expected to take approximately 8 years with completion estimated to be in December 2028. At the end of Phase II, only the ISFSI, the Switchyard, the shoreline protective structures and certain subsurface structures will remain in place.



Phase III – Transfer Spent Nuclear Fuel Off-site and Final Site Restoration – 2029 through 2053

During Phase III, the final phase of the SONGS decommissioning project, one of the primary activities is transferring the spent nuclear fuel stored in the ISFSI to a federally licensed repository at an off-site location. Until such time, maintenance, repair and security for the on-site ISFSI will continue. Once the spent fuel is removed, the SONGS site will be restored to a condition acceptable to the Department of Navy through an environmental permitting process, while meeting all the radiological and physical end-state requirements. SCE will issue a Request for Proposal at a time yet to be determined after the completion of Phase II to procure a contractor to perform the Phase III work, including but not limited to: ISFSI demolition, additional substructure removal and shoreline structure disposition.

Coalition Advocacy

Under the Nuclear Waste Policy Act, the federal government was required by law to begin taking possession of and disposing spent nuclear fuel beginning in 1998. However, more than two decades later, the federal government has not fulfilled its legal and contractual obligations. To date, no federal solution has been developed, and spent fuel remains stranded at decommissioning nuclear sites like SONGS across the country. Although spent nuclear fuel can be safely stored on site at SONGS for decades, the decommissioning project cannot be completed and the site cannot be restored until the federal government takes action to establish an off-site storage solution.

A coalition has been formed with the mission to promote federal legislation, appropriations and other actions to facilitate and secure policies necessary to relocate the spent nuclear fuel at SONGS to a federally licensed off-site interim storage facility and/or permanent geologic repository. The coalition is called *Action for Spent Fuel Solutions Now*. It provides an opportunity for local governments, elected officials, utilities, environmental groups, and community members who support relocating spent nuclear fuel to a federally licensed off-site facility to make it a priority for the federal government.

The coalition's objective well-aligns with Riverside's co-ownership interest and obligation in its SONGS decommissioning agreement. Without a federal storage facility, the City would be required to fund the maintenance and security of the on-site ISFSI for an unknown period of time, and the decommissioning project could never be completed as a result. As long as there is spent fuel on-site, the City would bear any associated costs and liabilities. Therefore, the City has a vested interest in the establishment of a federal repository as well as the expedient transfer of all spent nuclear fuel to the federal facility, and participation in the *Action for Spent Fuel Solutions Now* coalition is a positive step towards advancing the City's interest and partnering with those communities in the area which have the same aligned goals.

STRATEGIC PLAN ALIGNMENT:

This item aligns with Strategic Priority No. 4 Environmental Stewardship, and No. 6 Infrastructure, Mobility, and Connectivity.

This item aligns with EACH of the five Cross-Cutting Threads as follows:

1. **Community Trust** – Community meetings are held quarterly to share information and progress about the decommissioning project with the public. The meetings provide a forum to exchange ideas among stakeholders, promote transparency, and build trust with communities surrounding SONGS.
2. **Equity** – Decommissioning Project activities are being closely monitored to equitably minimize the impacts to RPU customers and prevent cost overruns that could unfairly burden current ratepayers.
3. **Fiscal Responsibility** – Riverside's Decommissioning Trust Fund and the additional liability reserve are being well-managed throughout the decommissioning process to ensure sufficiency.
4. **Innovation** – *The Action for Spent Fuel Solutions Now* coalition offers an innovative approach to solving the stranded spent nuclear fuel issue by bringing together interested stakeholders to facilitate an expedient federal solution.
5. **Sustainability & Resiliency** – The decommissioning project is committed to minimizing project impacts to the environment and areas surrounding SONGS' site by implementing strict environmental controls and closely adhering to all federal, state and local regulatory requirements.

FISCAL IMPACT:

There is no direct fiscal impact associated with this report. There are no additional costs for the City's participation in the coalition since decommissioning cost estimates already include ancillary cost factors. The City's portion of the coalition cost is estimated to be \$4,000 over the next 12-month period.

Prepared by: Todd M. Corbin, Utilities General Manager
Certified as to
availability of funds: Edward Enriquez, Chief Financial Officer/Treasurer
Approved by: Al Zelinka, FAICP, City Manager
Approved as to form: Phaedra A. Norton, City Attorney

Attachment: Presentation