

FACT SHEET

U.S. Spent Nuclear Fuel Challenge – Federal Action Needed

The federal government must meet its legal and contractual obligation to provide a home for the spent nuclear fuel within California and 33 others across the nation.

Continuing Accumulation of Spent Nuclear Fuel:

- According to the Office of Nuclear Energy's 2021 Strategic Vision, the Department of Energy is now responsible for the disposal and associated transport of 86,000 metric tons of spent fuel, which is currently stored on-site at 76 operating or shutdown nuclear power plants in 34 states.¹
- This figure is expected to increase by approximately 2,000 metric tons a year over the next decade, surpassing the 100,000 metric ton mark by 2030.
- The problem will only continue to grow in coming years, with an anticipated 140,179 metric tons of spent fuel accumulated during the remaining lifetime of existing nuclear power plants across the country. This is more than twice the amount envisioned for the only permanent repository ever approved by Congress.
- While spent fuel can be stored safely at reactor sites for decades, decommissioning cannot be fully completed, and the land restored for other use until the spent fuel is removed.

De Facto Interim Storage is Not a Solution:

- With the permanent closure of 12 nuclear power reactors over the last decade, there are now 19 communities in the U.S. housing millions of pounds of spent commercial fuel without their consent due to the inability of the federal government to deliver a facility to accept this material.²
- Among these are four de facto interim storage sites in California—the San Onofre Nuclear Generating Station in San Diego County, the Diablo Canyon Power Plant in San Luis Obispo County, the Humboldt Bay Power Plant in Humboldt County, and the Rancho Seco Nuclear Generating Station in Sacramento County. Three are located along California's coastline.
- Based on current projections, California may soon be among the states with the most stranded spent fuel in the nation.

Cost of Inaction to Taxpayers:

- As a result of the federal government's failure to meet its obligations to assume title, liability and transportation of the nation's spent fuel beginning in 1998—some 25 years ago—as required by the Nuclear Waste Policy Act of 1982 (Public Law 97--425), the General Accounting Office (GAO) reports that since 2000 all American taxpayers in the U.S. have been forced to pay \$9 billion in damages for costs incurred to store spent fuel at reactor sites.³

¹ [Department of Energy, Office of Nuclear Energy 2021 Strategic Vision](#)

² [Congressional Research Service R42853 - Nuclear Energy: Overview of Congressional Issues, Updated October 20, 2021](#)

³ [General Accounting Office Report \(GAO-21-603\), September 2021](#)

- The GAO further reports that “These costs will continue to grow until the federal government develops and approves a consolidated interim storage facility or permanent disposal repository and takes custody of the fuel,” ultimately reaching as much as \$30.6 billion.
- This is in addition to the \$46 billion (including interest income) nuclear utility customers pre-paid into the Nuclear Waste Fund for the development of a permanent repository, including \$2 billion from California customers.⁴

Recent Progress:

- In 2021, the House established the bipartisan [Spent Nuclear Fuel Solutions Caucus](#).⁵ Led by co-chairs Rep. Mike Levin (D-CA) and Rep. Chuck Fleischmann (R-TN), the caucus aims to address the challenges associated with stranded commercial spent fuel across the country.
- The DOE’s 2021 Strategic Vision call for the establishment of an integrated waste management system to address the nation’s commercial spent nuclear fuel inventory, the department’s first significant action in more than a decade.⁶ DOE’s recent report and related \$26 million funding opportunity announcement seeking to engage communities in a national discussion regarding a consent-based approach to consolidated interim storage is another positive step.^{7 8}
- Progress and future work on federal consolidated interim storage was made possible by the \$27.5 million Congress provided in the Consolidated Appropriations Act of 2021 (Public Law 116-260).
- Additional encouragement can be found in the recent successful international examples of siting in Finland, Sweden, Switzerland, and Canada, where the process to identify, permit, and construct permanent disposal facilities are well on their way.
- In California, the [Spent Fuel Solutions \(SFS\)](#) launched in 2021. A coalition of local governments, elected officials, utilities, environmental groups, labor leaders, Native American leaders, business organizations and other community members, ASFSN works to encourage the federal government to provide off-site storage and permanent disposal solutions for the spent nuclear fuel at the San Onofre Nuclear Generating Station (SONGS) and other nuclear sites across the state and nation, with input from stakeholders and engaged communities.

The Path Forward:

- Though nearly 30 bills have been introduced in recent years attempting to resolve the spent fuel problem in part or whole, all have fallen short of the support needed for passage and enactment.
- The elements of a path forward are in the recommendations of the Blue Ribbon Commission on America’s Nuclear Future⁹, Southern California Edison’s Strategic Plan for the Relocation of SONGS Spent Nuclear Fuel to an Offsite Storage Facility or a Repository¹⁰ released in March 2021, and the GAO’s September 2021 report *Congressional Action Needed to Break Impasse and Develop a Permanent Disposal Solution*.¹¹

⁴ [U.S. Department of Energy](#)

⁵ [Spent Nuclear Fuel Solutions Caucus Announcement, July 21, 2021](#)

⁶ [Department of Energy, Office of Nuclear Energy 2021 Strategic Vision](#)

⁷ [Department of Energy, Consent Based Siting: Request for Information Comment Summary and Analysis, September 2022](#)

⁸ [Department of Energy, Financial Assistance Funding Opportunity Announcement, September 20, 2022](#)

⁹ [Blue Ribbon Commission on American’s Nuclear Future Report to the Secretary of Energy](#)

¹⁰ [Spent Nuclear Fuel Solutions – A Fresh Approach | SONGS \(songscommunity.com\)](#)

¹¹ [General Accounting Office Report \(GAO-21-603\), September 2021](#)

- The ultimate success of a long overdue legislative solution relies upon the persistent effort of Congress, the current and future administrations, informed and engaged communities, and other stakeholders eager to work together to solve the problem.

Window of Opportunity:

- With progress on federal consolidated interim storage, appropriations, the establishment of the bipartisan Spent Nuclear Fuel Solutions Caucus in the House, and international progress on permanent repositories, a window of opportunity has opened here in the U.S. Now is the time to encourage the federal government to take action.