

The DOE Loan Program Office's Role in U.S. Nuclear Energy Leadership

Nuclear energy is an important technology for U.S. energy security and competitiveness, and the U.S. Department of Energy Loan Programs Office (LPO) is essential to nuclear energy's success. The LPO provides crucial support for early-stage projects, which accelerates technology commercialization, attracts private capital, and ensures U.S. leadership in meeting growing global energy demand, enhancing our geopolitical influence and national security. This is achieved with a small amount of appropriations that support a large amount of lending, creating immense value for taxpayers.

Government-backed loans from LPO help finance early movers, bridging the gap between demonstrations and projects that are attractive to private investors. Private-sector lenders view early-stage commercial technologies as high risk, which eliminates many debt financing options. To realize nuclear energy deployment potential in the 2030s and beyond, it is imperative to finance these early mover projects now. A financing vehicle for initial commercial deployments that helps bridge the gap between demonstrations and private debt financeable projects is crucial. By investing in early mover projects and supply chain developments, the LPO loan enables reductions in technological and execution risk, making subsequent projects more attractive to private capital markets. The best way to de-risk future projects is to build early ones. That is catalyzed by LPO financing.

LPO funding enabled the completion of the first advanced light water reactors in the country and now the first restart of a retired reactor. Through loans finalized by the Trump Administration in 2019, the LPO was vital to the first deployment of a new, U.S.-developed reactor type at the Vogtle plant in Georgia. The LPO is now facilitating the restart of the retired Palisades reactor in Michigan, the first such project in the country. After Palisades was announced, Microsoft and Constellation announced plans to reopen Three Mile Island Unit 1, and the CEO of NextEra Energy stated that the company was evaluating restarting the Duane Arnold Nuclear Plant in Iowa. Other restart initiatives will continue to benefit from the Palisades project made possible by the LPO.

The due diligence process itself helps derisk projects for private investors. In addition to rigorous financial due diligence, the LPO's technological due diligence is more extensive than what most lending institutions, private equity firms, and infrastructure funds can accomplish. This in turn reduces technological risk of subsequent projects for private investors.

LPO loans to nuclear energy projects are of strategic national and energy security importance. A robust nuclear industry is crucial for national and energy security interests. China is aggressively investing in nuclear energy and exporting their technology to countries new to nuclear energy as a means of deepening their reliance on China. To compete globally, the U.S. needs to develop a strong domestic nuclear industry and deploy reactors at home first. However, private investors are not incentivized to take these interests into account. The strategic early LPO loans for Vogtle are helping the U.S. to compete with foreign state-backed nuclear companies by unlocking capital to complete early mover projects.