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### DOE Loan Programs Office Backs Loan Guarantees to Foster Innovation and Achieve 2050 Net Zero Carbon Economy

Under the new leadership of Director Jigar Shah, the U.S. Department of Energy's [Loan Programs Office](#) (LPO) has announced that more than \$40 billion is available in loans and loan guarantees to fund innovative energy infrastructure projects. The LPO has [also announced new procedures](#), making it easier to apply for loan guarantees. Pursuing a loan or loan guarantee through the LPO offers unique funding opportunities and DOE support for energy and clean technology project developers, particularly those that are pursuing innovative technology for which commercial lending is less readily available. Yet, the highly politicized failure of certain DOE-backed projects in the past and lingering uncertainty about what requirements apply warrant a closer look at the history of the program and how the administration is reshaping it.

## **Background**

The LPO provides loans, loan guarantees, and flexible financing customized to the specific needs of individual borrowers, for applicants that find it difficult to access debt capital from private lenders because their projects are viewed as too novel or risky. The LPO administers three separate funding programs: (1) the Tribal Energy Loan Guarantee Program, (2) the Innovative Energy Loan Guarantee Program, and (3) the Advanced Technology Vehicles Manufacturing Loan Program (ATVM). Different levels of funding are available through each of these programs.

Congress passed the Energy Policy Act of 2005 (42 U.S.C. § 16511 et seq.) amid growing concerns over energy prices and energy independence. The statute authorized the DOE to enter into loan guarantee agreements for projects meeting certain criteria, granting \$70 billion to the LPO to fund commercial deployment of innovative energy projects and tribal energy development projects. Under the Tribal Energy Loan Guarantee Program (Title XXVI of the Act), roughly \$2 billion in funding is still available. To qualify for a loan guarantee under Title XXVI, any energy development project pursued by a federally recognized Indian tribe or Alaska Native Corporation is eligible, including drilling, mining, or refining of fossil energy, transmission infrastructure and energy storage, fuel transportation, or production of renewable energy. [Energy projects on tribal lands](#) are vital to meeting the Biden administration's renewable energy goals. To qualify for funding under Title XVII of the Act (Innovative Energy Loan Guarantee Program), applicants must demonstrate that their projects (1) avoid, reduce, or sequester air pollutants or anthropogenic greenhouse gas emissions; and (2) employ new or significantly improved technologies. Roughly \$20 billion in loan guarantee authority remains earmarked under Title XVII for innovative advanced fossil energy projects, advanced nuclear energy projects, and innovative renewable energy and efficient energy projects.

The ATVM loan program was established under the Energy Independence and Security Act of 2007 (42 U.S.C. § 16511 et seq.) to raise U.S. fuel economy standards and encourage domestic production of fuel-efficient cars. It provides direct loans to fuel-efficient automakers and parts suppliers to construct new U.S. factories or retrofit existing factories to produce vehicles or parts that achieve at least 25% improvement in fuel efficiency versus a 2005 comparable model, or vehicles that achieve a fuel efficiency of 75 miles per gallon or equivalent. Originally granted \$25 billion to award in loans, the ATVM loan program still has nearly \$18 billion in available funding.

Since 2009, the LPO has funded \$35 billion in loans and loan guarantees to 30 projects through these three programs. These projects include the first two nuclear reactors to begin construction in 30 years, the first five utility-scale photovoltaic systems in the United States, and one of the largest wind farms in the world. High-profile success stories include a major player in the electric vehicle industry.

Some projects, however, generated unfavorable headlines and criticism. Solyndra, the first recipient of a loan guarantee under the Title XVII Innovative Energy Loan Guarantee Program, declared bankruptcy in 2011 after receiving \$535 million through the program. The Inspector General's Office [later found](#) that Solyndra intentionally provided DOE with inaccurate and misleading information, intentionally misrepresented known facts, and omitted relevant information during the loan guarantee application process. The high-profile failure of the first loan guarantee caused [significant political fall-out](#). After Solyndra, applications to the LPO slowed as administrations chose not to promote the program. As a result, the LPO still has more than 60% of its original lending authority. And despite some unfavorable headlines, the LPO has a successful track record of making money for taxpayers, netting [over \\$3 billion](#) in interest payments to date.

## **Efforts to Revive the Program**

Although the LPO became less active after high-profile controversies like Solyndra, and was not a priority of previous administrations, the Biden administration, under the leadership of Director Shah, has taken steps to reinvigorate the loan program. Director Shah stated that his goal is for the LPO to play a significant role in helping to achieve the administration's goal of a net zero carbon economy by 2050. To support this effort, the LPO recently created a new Outreach and Business Development Division, hiring 10 new employees to shepherd applicants through the loan process. The LPO also reduced barriers for earlier-stage companies by deferring application fees to loan closing and deferring financial reviews until later in the application process. The LPO reached out to private investors and banks to educate these institutions on how, and why, to invest in new and innovative clean technology. In April, the LPO released [resource guides](#) on how the LPO can work with applicants to provide billions of dollars in loan guarantees to finance different project types.

The DOE's efforts to resuscitate the program appear to have been productive. In a recent interview, Director Shah stated that the LPO is currently reviewing over 100 active applications, totaling \$69 billion, and that the LPO expects to continue to receive applications totaling around \$7 billion per month. New loans are expected to be announced this fall. The LPO encourages applications from "traditional" technologies, such as heating, ventilation, and air conditioning (HVAC); rooftop solar; and household appliances to innovate and receive funding. There are also opportunities for coal communities to fund their energy transitions through the LPO programs. The LPO has also [encouraged applications](#) from projects investing in Qualified Opportunity Zones, to spur economic development and job creation in economically distressed communities.

## **Recent Regulatory and Legislative Developments**

Despite the LPO's efforts to revamp the program, some lenders might remain hesitant given uncertainty about whether, and to what extent, National Environmental Policy Act review will be required in connection with DOE

loans and loan guarantees, and the potential for legislative action that might affect such loans and loan guarantees.

The Trump administration adopted new NEPA implementing regulations in 2020. The regulations explicitly removed from the regulations' definition of "major federal action" those "loans, loan guarantees, or other forms of financial assistance" where the agency "does not exercise sufficient control and responsibility over the effects of such assistance." Of five lawsuits that challenged the 2020 NEPA rules, one was dismissed, and the remaining cases are stayed pending the Council on Environmental Quality's review of the 2020 rule. Although the exclusion was briefly mentioned in one of the complaints, none of the lawsuits focused on the exclusion of loans and loan guarantees from "major federal action." It is unclear whether this exception will remain after CEQ's review. In October, the CEQ [proposed amendments to the 2020 NEPA implementing regulations](#), seeking to restore some of the language used in the original 1978 NEPA regulations, but the definition of "major federal action" was not one of them, leaving uncertainty about whether and to what extent NEPA review is required for LPO decisions.

The Senate-passed Infrastructure Investment and Jobs Act has two relevant components for the loan guarantee program. First, the bill describes a "reasonable prospect of repayment" criterion to qualify for a loan guarantee, and second, the bill expands the list of eligible projects to include projects that increase the domestic supply of critical minerals for energy infrastructure. If the Senate bill becomes law, it would increase clarity in the loan application process, and expand the types of projects that could receive early-stage funding. On the flip side, the requirement of a reasonable prospect of repayment might make it tougher for truly innovative (and therefore untested) technologies to receive funding.

## Implications

The LPO has encouraged applications for funding innovation in sectors as diverse as coal community transitions to HVAC systems to [offshore wind development promoted by the Biden administration](#). Given the LPO's recent excitement over funding innovative projects, particularly for new technologies that are facing roadblocks to obtaining debt capital from private lenders, there are increasing opportunities for project developers to obtain funding in the early stages of their projects. Yet, developers will need to carefully consider how to navigate the complex DOE loan and loan guarantee process, particularly in the shifting landscape described above.

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