

New Opportunities to Spur Economic Recovery Bolstering Successful Financing Tools at DOE's Loan Programs Office

The COVID-19 public health crisis has quickly resulted in an economic crisis that is prompting unprecedented federal action. As rescue efforts in response to the current crisis turn to recovery, modifications to DOE's existing lending programs offer an effective and immediate path to putting federal resources to work in ways that will benefit America's long-term economic competitiveness and create jobs quickly. Under existing DOE loan authority, \$43 billion could be made available to leverage private capital in developing new energy projects—using innovative technologies such as carbon capture, small modular reactors, advanced vehicles, and energy storage—across the country. As part of the stimulus conversation, considering expansion for these programs would bring existing projects to market faster or start quickly attracting new projects that can pave the way for U.S. economic growth and increased employment.

Over a decade ago, amid one of the deepest economic downturns in American history, loans and loan guarantees provided by the Department of Energy paved the way for notable innovations that accelerated growth in clean energy and electric vehicle markets. DOE's lending programs supported more than 10,000 jobs, prompted technology advances that dramatically reduced clean-energy costs increasing affordability, and financed projects that together added enough generating capacity to power more than 1 million American homes¹.

DOE currently administers three direct loan and loan guarantee programs through its Loan Programs Office (LPO)². The Title 17 Innovative Clean Energy Loan Guarantee Program and the Tribal Energy Loan Guarantee Program were authorized in the Energy Policy Act of 2005, known as the EPAct. The Advanced Technology Vehicles Manufacturing Direct Loan Program was authorized two years later under the Energy Independence and Security Act of 2007. Over the past 10 years, DOE has issued more than \$35 billion in loans to innovative projects that have created tens of thousands of jobs and reduced greenhouse gases, while still incurring only a 2.8% loss rate across its entire loan portfolio—a loss rate that many commercial lenders would envy³. Even though a large amount of lending potential remains within these programs, they have remained relatively dormant for years. The only new loan guarantees issued in recent years went to the Alvin W. Vogtle nuclear generation plant in Georgia, which was already receiving loan guarantees under the Title 17 program. A small set of targeted improvements to DOE's energy financing services will make federal resources more accessible to the private sector, allowing the LPO to close deals more quickly while staying true to congressional intent.

¹ 5 Big Wins in Clean Energy from the Loan Programs Office, Feb. 2016 (<https://www.energy.gov/articles/5-big-wins-clean-energy-loan-programs-office>)

² The Western Area Power Administration also administers the Transmission Infrastructure Program, which has \$3.25 billion in loan authority to support utility-scale transmission projects that facilitate the delivery of clean energy (<https://www.wapa.gov/transmission/TIP/Pages/criteria.aspx>).

³ Loan Programs Office Portfolio Performance, as of December 2019 (<https://www.energy.gov/lpo/portfolio>).



Existing U.S. Department of Energy Loan Authorities⁴

Program	Existing Loan Authority
Title 17 Innovative Clean Energy Loan Guarantee Program <ul style="list-style-type: none"> • Advanced Nuclear Energy Projects • Advanced Fossil Energy Projects • Renewable Energy and Efficient Energy Projects 	\$10.9 billion \$8.5 billion \$4.5 billion
Advanced Technology Vehicles Manufacturing Direct Loan Program	\$17.7 billion
Tribal Energy Loan Guarantee Program	\$2.0 billion
Total Existing DOE Loan Authority	\$43.6 billion

Title 17 Innovative Clean Energy Loan Guarantee Program

The Title 17 Innovative Clean Energy Loan Guarantee Program currently has more than \$23 billion in remaining lending authority to support the commercial deployment of first-of-a-kind advanced nuclear, advanced fossil fuel, and renewable energy and energy efficiency projects in the United States. However, structural barriers on the front and back end of the administrative process have discouraged industry from utilizing the Title 17 program in recent years. Although interest rates for Title 17 are based on Treasury rates, applicants face other costs that discourage participation. These other costs include application fees, third-party advisor fees, credit subsidy costs, and project equity.

BPC recommends considering an additional appropriation of \$25 million in Title 17 administrative funds that would be available for two years to reduce application and third-party advisor fees for potential borrowers. These upfront costs can easily exceed \$2 million per project for project developers who are already facing difficult financing challenges.

When a project closes on financing, applicants are also responsible for paying the credit subsidy cost (the net present value of the estimated long-term cost to the government of a loan), which can be the largest expense associated with the application process. For other government lending programs, Congress has appropriated funds to lessen or eliminate this cost burden for potential borrowers.

BPC recommends Congress appropriate \$2.6 billion in credit subsidies across all three Title 17 technology areas.

BPC recommends these credit subsidy appropriations have a sunset date of 24 months from enactment to ensure their near-term stimulus impact and ease closing costs for project developers while encouraging them to navigate the program in a timely manner.

BPC Proposed Title 17 Appropriated Credit Subsidy by Technology Area

Advanced Nuclear Energy and Front-End Nuclear Projects	\$1.1 billion
Advanced Fossil Energy Projects	\$1 billion
Renewable and Efficient Energy Projects	\$500 million
Total Additional Credit Subsidy	\$2.6 billion

⁴ Does not include the Western Area Power Administration Transmission Infrastructure Program.

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For many applicants, raising project equity from reliable sponsors can be a challenge, leading to delays in closing financing and beginning construction. Under EPAct Section 1703, project developers must contribute at least 20% of total project costs. In most cases, however, DOE requires a larger equity contribution (between 35% and 50%); in addition, the restrictions on projects receiving additional federal support—or “double-dipping” —prohibits federal grants from being counted as equity.

BPC recommends Congress consider expanding Title 17 to allow federal grants, including direct cash grants such as those made to support large-scale deployments from DOE’s Offices of Fossil, Nuclear, and Renewable Energy and Energy Efficiency, to count toward developers’ equity contributions for all projects⁵.

BPC recommends that access to Title 17 should also be increased by making certain state financing entities eligible to use the program (a provision that would achieve this is included in Section 1807 of the American Energy Innovation Act, S.2657). Providing this clarity to states could lead to more projects being built across the country and greater regional diversity within the DOE loan portfolio.

Advanced Technology Vehicles Manufacturing Direct Loan Program

The ATVM program provides low-interest loans for U.S.-based efforts to manufacture light-duty passenger vehicles and components that achieve a 25% improvement in fuel economy over a 2005 baseline. In its early years, the program saw major successes: Tesla was launched with the help of ATVM financing to purchase a shuttered auto plant in Fremont, CA; the program also supported Ford’s roll-out of the EcoBoost engine and other fuel-efficient models in 13 different facilities across 8 states, as well as Nissan North America’s introduction of the all-electric LEAF⁶. As the auto industry’s finances strengthened over the last decade, top-tier manufacturers have had less need for federal support—thus, program activity dropped significantly after 2009. The situation for automakers is likely changing again soon as a result of the current crisis and this program could help protect industry jobs while helping it develop next generation technologies needed for global competitiveness.

BPC recommends expanding ATVM eligibility to medium and heavy duty vehicles. The remaining \$17.7 billion of loan authority in the ATVM program could be put to work supporting U.S. manufacturing jobs by expanding loan eligibility to include medium- and heavy-duty vehicles, which make up approximately 23% of overall transportation-related greenhouse gases.⁷

Although the program does not charge application fees and still has \$4 billion in credit subsidy appropriations, smaller supply-chain manufacturers and early-stage companies can still have difficulty coming up with the funds to pay third-party advisor fees. Expanding the focus of the program and targeting administrative fees would stimulate participation and drive new innovations into an area of the transportation sector currently not supported by the LPO.

BPC recommends that Congress consider appropriating an additional \$10 million in administrative funds to the ATVM program, and should be available for two years, to subsidize

⁵ During the American Recovery and Reinvestment Act (ARRA) of 2009, projects that received grants through the U.S. Treasury Section 1603 cash grant program were also eligible to receive DOE loan guarantees.

⁶ DOE Advanced Vehicle Manufacturing Project Portfolio (<https://www.energy.gov/lpo/advanced-vehicles-manufacturing-projects>)

⁷ <https://www.epa.gov/greenvehicles/fast-facts-transportation-greenhouse-gas-emissions>

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third-party advisor fees and make the application processes less burdensome for private borrowers.

Tribal Energy Loan Guarantee Program

The newest financing product offered by DOE is the Tribal Energy Loan Guarantee Program, which was originally established in the 2005 EPAct legislation but did not receive funding until the fiscal year 2017 omnibus appropriations bill. The focus of this \$2 billion program is to support economic development for federally recognized tribes and Alaska native corporations. The program does not have an innovative technology or greenhouse gas reduction mandate. Even without such requirements, increasing awareness of the program and attracting applicants who are experienced in energy development remains a challenge—as a result, DOE has issued no loan guarantees under TELGP to date.

BPC recommends an additional appropriation of \$7 million in administrative funds, available for two years, along with \$200 million in funding for credit subsidies. These two features would help reduce barriers to participation and drive increased utilization of the program consistent with congressional intent.

Conclusion

As the focus shifts to recovering from the devastating economic consequences of COVID-19, Congress should look to well-proven programs with a record of success to quickly deliver federal resources in ways that also strengthen the U.S. economy for the long term. DOE's existing loan and loan guarantee programs, many of which were established with bipartisan support, have the potential to put U.S. companies at the forefront of rapidly growing global markets for clean energy technologies, while also creating new construction and manufacturing jobs and advancing low-carbon solutions at home. Expanding and refining these programs would be a smart investment, not only in meeting the urgent economic needs of the next several years, but in preparing for the deep decarbonization challenges that lie just beyond the current crisis.