Unlocking Funding Opportunities for Energy Projects: A Deep Dive into DOE’s Loan Programs

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Agenda

1. Overview of DOE Loan Programs Office
2. Program Eligibility
3. Application Process

Overview of Loan Programs Office

Background

- The United States Department of Energy's Loan Programs Office was created in 2005, when the Energy Policy Act of 2005 was signed into law.
- LPO provides loans and loan guarantees to projects that have demonstrated potential to accelerate the decarbonization of the U.S. economy, focusing on those that combine clean energy technology with effective financial models.
- Since its inception, the LPO has granted more than $30 billion in loans, with more than $13 billion in repaid principal and $4 billion earned in interest.

DOE Loan Programs Office (LPO)

LPO provides loans and loan guarantees to projects that have demonstrated potential to accelerate the decarbonization of the U.S. economy, focusing on those that combine clean energy technology with effective financial models.

Innovative Clean Energy	Loan Guarantees Title 17 Program	• Innovative Clean Energy I $3.0 Billion • Innovative Fossil Energy I $8.5 Billion • Innovative Nuclear Energy I $10.9 Billion
Advanced Transportation	Loans & Loan Guarantees ATVM & Title 17 Programs	• Manufacturing I $17.7 Billion in ATVM loans • Deployment I Eligible for the same $3.0 Billion in Innovative Clean Energy loan guarantees as above
Tribal Energy	Loans & Loan Guarantees TELGP Program	• Tribal Energy Projects I Up to $2.0 Billion

Inflation Reduction Act (IRA) Provides New Funding and Expanded Loan Program Offerings

- $40 billion in loan authority for projects eligible for loan guarantees under Title XVII program (available through September 30, 2026) and $3.6 billion for credit subsidy costs.
- Aggregate amount of loans under Tribal Energy Loan Guarantee Program increased from $2 billion to $20 billion and $75 million for credit subsidy costs. Also increased maximum percentage of loan guarantee from 90% to 100% and allows eligible applicants to apply for direct loans.
- Removed $25 billion cap on total amount of Advanced Technology Vehicle Manufacturing (ATVM) loans and appropriated $3 billion for credit subsidy costs.
- $2 billion for credit subsidy costs of direct loans to build new transmission lines or modify existing lines that have been designated by DOE as necessary in the national interest.

Inflation Reduction Act (IRA) Loan Program Enhancements

- New Energy Infrastructure Reinvestment (EIR) Program under Title XVII.
  - Program will guarantee loans to finance projects that retool, repower, repurpose, or replace energy infrastructure that has ceased operations, or enable operating energy infrastructure to avoid, reduce, utilize or sequester air pollutants or anthropogenic emissions of greenhouse gases.
  - Appropriated $5 billion through September 30, 2026, to cover credits subsidy costs with a total cap on loans of $250 billion.

Program Eligibility

Program Eligibility

Projects must satisfy four basic eligibility requirements:

1. **Use innovative technology**
   - New or significantly improved technology
   - New or significantly improved technology that includes commercial technology.
2. **Avoid, reduce or sequester greenhouse gas emissions.**
3. **Project must be located in the U.S.**
4. **Have a reasonable prospect of repayment.**

Financing to Spur Commercialization

- The first commercial-scale deployment, to address the engineering scale-up challenges and demonstrate technology effectiveness at scale.
- The next few commercial-scale deployments, to demonstrate the ability to mitigate construction risks and address engineering optimization.
- Commercial scale-up, to progress along the learning curve, lower costs and establish customer demand.
- Commercial debt market education, to overcome private debt market misunderstanding and gain commercial debt access.

Additional Eligibility Criteria for Specific Technologies

Innovative Clean Energy: Fossil

- Examples of potential near-term, early adoption and post-capture opportunities:
  - Post-combustion technologies.
  - Pre-combustion technologies.
  - Hydrogen production from natural gas.
  - Compression of CO_2 from bioethanol production and coal-to-chemicals plants.
  - Oxy-combustion.
  - Direct air capture (DAC).
  - CO_2 storage (Class VI wells) and CO_2 hubs.
- CO_2 Infrastructure Finance and Innovation Act (CIFIA) program.

Advanced Technology Vehicles Manufacturing Loan Program (ATVM)

- Manufacture eligible vehicles or components that are used in eligible vehicles. Advanced technology vehicles were originally defined as light-duty vehicles that meet or exceed a 25% improvement in fuel efficiency beyond a 2005 model year base-line of comparable vehicles; and/or ultra-efficient vehicles which achieve a fuel efficiency of 75 miles per gallon or equivalent using alternative fuels. The Bipartisan Infrastructure Law expanded the definition to include medium- and heavy-duty vehicles, locomotives, maritime vessels including offshore wind vessels, aviation and hyperloop.

  Build new facilities; reequip, modernize or expand existing facilities; and/or for engineering integration performed in the United States related to the manufacturing of eligible vehicles or components.

Eligibility of Electric and Alternative Fuel Vehicle Charging Infrastructure

- The manufacturing of infrastructure, including associated hardware and software, for alternative vehicle fuels such as electricity, hydrogen, liquefied natural gas (LNG), compressed natural gas (CNG) and biofuels, may be eligible under the ATVM loan program.
- The deployment of such infrastructure may be eligible under LPO’s Title 17 Innovative Energy Loan Guarantee Program.

Eligibility of Critical Materials/Minerals

- Through the ATVM program, LPO can support manufacturing of qualifying components for eligible vehicles. These projects can be along the automotive value chain after a material has been mined, such as manufacturing of battery cell components, battery cells, battery modules and battery packs for EVs, or manufacturing of EV charging infrastructure components.

Eligibility for New Energy Infrastructure Reinvestment (EIR) Program under Title VII

- Program will guarantee loans to finance projects that retool, repower, repurpose or replace energy infrastructure that has ceased operations, or enable operating energy infrastructure to avoid, reduce, utilize or sequester air pollutants or anthropogenic emissions of greenhouse gases.
- Appropriated $5 billion through September 30, 2026, to cover credits subsidy costs with a total cap on loans of $250 billion.

Eligibility for Tribal Energy Program

- DOE's tribal energy financing is available to eligible Indian tribes or entities, including Alaska Native village or regional or village corporations, or other financial institutions or tribes meeting certain criteria established by DOE, that are able to demonstrate being eligible for the special programs and services provided by the United States to Indians because of their status as Indians, or their wholly-owned entities with appropriate legal authority. In addition, a Tribal Energy Development Organization (TEDO) that is wholly or substantially owned by a federally recognized tribe is eligible.

- Eligible Projects include: electricity generation, transmission and/or distribution facilities, utilizing renewable or conventional energy sources, Energy storage facilities, Energy resource extraction, refining or processing facilities and Energy transportation facilities, including pipelines, District heating and cooling facilities, Cogeneration facilities and Distributed energy project portfolios, including portfolios of smaller distributed generation and storage facilities employed pursuant to a unified business plan.

Eligibility for CO_2 Transportation Infrastructure

- An eligible CIFIA project must:
- Be a large-capacity common carrier CO_2 transportation infrastructure project that transports CO_2 captured from anthropogenic sources and/or ambient air by pipeline, shipping, rail or other methods for storage and/or use.
- Have total project costs greater than $100 million.
- Be located in the United States.
- Publish, by project completion, a publicly available tariff with just and reasonable rates, terms and conditions for nondiscriminatory CO_2 transportation service.
- Have a reasonable prospect of repaying its CIFIA loan from project cashflows.

Application Process

LPO Recommendations for Strong Application

Financial

- Third-party supply and off-take agreements.
  - Strongest applications have agreements for term that matches entire tenor of loan, agreements with subsidiaries or third parties with strong credit and agreements with independent third parties.
- EPC contracts with strong terms that protect sponsor.
- Detailed construction budgets.
- Identification of resources necessary for project to become operational, including capital, goods, raw materials, O&M requirements and decommissioning.
- Ability to obtain permits and fulfill environmental review requirements.
- Rights to intellectual property and ability to assign to DOE in the event of a default.
- Demonstration of readily available equity.
- Identified project site(s).

LPO Recommendations for Strong Application

- Working financial model, including explanation of assumptions underlying model, reserve accounts for future expenses and structure to allow reviewers to access the model and test the assumptions.

- Clear strategy for monetizing state and federal tax incentives.

- Data on market and competition.

Application Process

1. Review applicable DOE solicitation.

2. Schedule pre-Application consultation (optional, but highly recommended).

3. Review LPO Recommendations for a strong application.

4. Develop application and supporting materials.
   - Process through funding likely to take at least six months.
   - Finalize/document ownership and contract structure.

5. Submit Part I Application
   - LPO undertakes streamlined review that considers whether project (1) qualifies as eligible technology; (2) avoids, reduces or sequesters greenhouse gas emissions; (3) employs new or significantly improved technology; and (4) is located in the U.S.
   - Review typically 60 days or less.

Application Process

Submit Part II Application

- LPO evaluates creditworthiness; technical factors, including technical relevance, merit technical approach, work plan and construction plan; and programmatic factors, including legal, environmental and regulatory factors.
  - Applicant must provide preliminary credit rating.

- For projects that score high enough, the LPO will consider whether the project achieves policy objectives of program.

- LPO Invites eligible applicants into due diligence.

Application Process

Due Diligence and Term Sheet Negotiation

- LPO performs financial, credit, legal, environmental and market due diligence.

- Engages external advisors (e.g., legal financial, insurance, market).

- LPO structures transaction, underwrites and negotiates term sheet with applicant.
  - Transaction timing depends on completeness of application, complexity of greenhouse gas analysis, sponsor's readiness to proceed, responsiveness to information requests and negotiation efficiency.

- Secretary of Energy, Office of Management and Budget and U.S. Treasury/FFB signoff required before conditional commitment is made (30 day review).

Application Process

Loan Closing

- LPO and applicant negotiate and finalize loan guarantee agreement and project documents.

- Applicant pays origination fee in amount sufficient to cover administrative expenses associated with the application review, due diligence and underwriting of the loan guarantee application (including any costs of third party consultants) as well as pro-rated first annual maintenance fee and credit subsidy costs (i.e., projected net recovery for the government if the buyer defaults calculated as percentage of the loan commitment).

- DOE anticipates allocating some of the appropriated credit subsidy to cover a portion of the credit subsidy cost (above 7% up to a total of $17 million) to the extent funds are available.

Application Process

Fees Payable at Closing

- Application fee
  - $50,000 Part 1 submission fee and $150,000 Part II fee for loans up to $150 million and $400,000 for loans above that amount.
- Facility fee for underwriting loan calculated as a percentage of the requested loan amount.
- 3rd party consultant costs.
- Maintenance fee payable annually.
- Credit subsidy cost calculated by the Office of Management and Budget using historical assumptions.

Conditions on Projects Receiving a Loan Guarantee

Projects that receive a loan guarantee must comply with certain federal laws and regulations, including:

- National Environmental Policy Act (NEPA) – Must undertake environmental review of project and obtain necessary permits before LPO will issue guarantee.

- Davis Bacon Act – Must agree that all laborers and mechanics employed by contractors and subcontractors in performance of construction financed in whole or part by the guarantee must be paid prevailing wage rates.

- Build America, Buy America Act-Requires that iron, steel, manufactured products and construction materials used in an infrastructure projects be produced in the U.S. Could potentially apply under certain circumstances.

Questions

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