FINANCING ENERGY INFRASTRUCTURE

NOW AVAILABLE: MORE THAN $40 BILLION LOAN & LOAN GUARANTEE AUTHORITY

TITLE 17 INNOVATIVE ENERGY LOAN GUARANTEE PROGRAM

- Advanced Fossil Energy
  - $8.5 Billion
  - ($2 Billion conditionally committed to Lake Charles Methanol)

- Advanced Nuclear Energy
  - $8.8 Billion ($2 Billion specifically for Front End)

- Renewable Energy & Efficient Energy
  - Up to $4.5 Billion

TRIBAL ENERGY LOAN GUARANTEE PROGRAM

- All-of-the-Above Energy Projects Benefiting Tribal Economies
  - Up to $2 Billion in Partial Loan Guarantees

ADVANCED TECHNOLOGY VEHICLES MANUFACTURING LOAN PROGRAM

- Domestic Manufacturing of Light-Duty Vehicles & Eligible Components
  - $16 Billion
LPO’S VALUE AS A STRATEGIC PARTNER

LPO administers three distinct loan programs, but all can provide a similar value to borrowers:

• LPO can provide first-of-a-kind projects and other high-impact energy-related ventures with access to debt capital that private lenders cannot or will not provide

• LPO can provide flexible, custom financing that helps to meet the specific needs of individual borrowers

• LPO encourages early engagement and is a valuable partner to applicants throughout the entire lifetime of a project
EXPERIENCE CATALYZING NEW MARKETS

OVER 30 PROJECTS IN 18 STATES

Technologies Include:
- Advanced Technology Vehicles Manufacturing
- Advanced Nuclear Energy
- Bioenergy & Biofuels
- Concentrating Solar Power
- Geothermal Power
- Photovoltaic Solar
- Storage & Transmission
- Wind Energy

OVER $30 BILLION INVESTED

https://www.energy.gov/lpo/portfolio
LOAN PROGRAMS HISTORY OF SUCCESS

DOE loan programs have a track record of catalyzing new market development:

- First 5 U.S. photovoltaic solar power projects larger than 100 MW
- First new nuclear reactors to begin construction in U.S. in 30 years
- 4 onshore wind farms, including one of the world’s largest
- World’s largest concentrating solar power (CSP) plant & first CSP power tower technology to incorporate thermal energy storage
- Revitalized geothermal power with projects in Nevada & Oregon
- Conditional commitment for world’s first methanol production facility to employ carbon capture technology in Louisiana. The captured carbon would be utilized for enhanced oil recovery (EOR) in Texas.
- Domestic advanced auto manufacturing facilities in 8 states.
ADVANCED FOSSIL ENERGY

TECHNOLOGY AREAS OF INTEREST

Advanced Resource Development
- Coal-bed methane recovery
- Novel oil and gas drilling

Low Carbon Power Systems
- Chemical looping or process that isolate fuel from air during combustion
- Fuel cells which convert chemical energy into electricity without combustion

Carbon Capture
- CO$_2$ capture from traditional coal or natural gas electricity generation
- Permanent geologic storage or utilization in enhanced oil recovery (EOR)

Efficiency Improvements
- Combined heat and power (CHP) and industrial waste recovery
- High-efficiency distributed fossil power systems and microgrids

QUALIFYING PROJECTS ARE NOT LIMITED TO THESE TECHNOLOGIES.
ADVANCED NUCLEAR ENERGY

TECHNOLOGY AREAS OF INTEREST

Advanced Nuclear Reactors
- Projects with state-of-the-art design improvements in fuel technology, thermal efficiency, modularized construction, and safety systems

Small Modular Reactors (SMRs)
- Utilize standardized design and are nominally 300 MW or smaller in size
- Projects have state-of-the-art design improvements

Upgrades and Upgrades at Existing Facilities
- Improvements to an existing reactor to increase efficiency
- Critical improvements that are requisite to current or future facility operation

Front-End Nuclear
- Uranium conversion or enrichment
- Nuclear fuel fabrication

QUALIFYING PROJECTS ARE NOT LIMITED TO THESE TECHNOLOGIES.
RENEWABLE ENERGY & EFFICIENCY

TECHNOLOGY AREAS OF INTEREST

Advanced Grid Integration & Storage
- Renewable energy generation, including distributed generation, incorporating storage
- Smart grid systems incorporating demand response

Drop-in Biofuels
- New bio-refineries or bio-crude refining processes
- Modifications to existing ethanol facilities to produce drop-in molecules

Waste-to-Energy
- Methane from landfills or ranches via biodigesters
- Utilizing municipal solid waste, crop waste, or forestry waste

Enhancement of Existing Facilities
- Powering non-powered dams or upgrading existing hydro facilities
- Retrofitting existing renewable facilities with innovative technology (e.g. wind turbine retrofits)

Efficiency Improvements
- Improve or reduce energy usage in residential, institutional, and commercial facilities, buildings, and/or processes
- Recover, store, or dispatch waste energy or underutilized renewable energy sources

QUALIFYING PROJECTS ARE NOT LIMITED TO THESE TECHNOLOGIES.
ELIGIBILITY REQUIREMENTS

**TITLE 17 INNOVATIVE ENERGY LOAN GUARANTEE PROGRAM**

- **INNOVATIVE TECHNOLOGY**
  Eligible projects must utilize new or significantly improved technology or systems

- **GREENHOUSE GAS BENEFITS**
  Eligible projects must reduce, avoid, or sequester greenhouse gases

- **LOCATED IN THE U.S.**
  Eligible projects must be located in the United States but may be foreign-owned

- **REASONABLE PROSPECT OF REPAYMENT**
  Eligible projects must be able to repay loan principal and interest. LPO conducts due diligence and underwrites each loan similar to a commercial lender
FINANCIAL TERMS

TITLE 17 INNOVATIVE ENERGY
LOAN GUARANTEE PROGRAM

LOAN GUARANTEE:  A loan guarantee can support debt from a commercial lender or the U.S. Treasury

LOAN TENOR:  Long-term financing is available based on the useful life of the asset - up to 30 years

INTEREST RATES:  Interest rates set based on equivalent U.S. Treasury rate plus a credit-based spread (-0.5-1.5%)

EQUITY:  LPO can only guarantee up to 80% of the total project cost. Most projects have at least 35% equity

CO-LENDING:  Co-lending with commercial lenders is encouraged but not required
Advanced Technology Vehicles Manufacturing
- Building new facilities in U.S.
- Reequipping, modernizing, or expanding existing facilities in U.S.

Qualified Component Manufacturing
- Building new facilities in U.S.
- Reequipping, modernizing, or expanding existing facilities in U.S.

Engineering Integration
- Engineering integration performed in U.S. for ATVs or qualifying components

https://www.energy.gov/lpo/atvm

QUALIFYING PROJECTS ARE NOT LIMITED TO THESE TECHNOLOGIES.
TRIBAL ENERGY LOAN GUARANTEE PROGRAM

AREAS OF INTEREST

Key Eligibility Requirement

 Tribe or 100 percent tribally owned entity is the borrower.

No Restriction On Type Of Project/Technology

 Provide or expand electricity or other energy services such as generation, transmission, energy storage projects, or enhance energy resource extraction or processing (e.g. mining, oil & gas, biofuels, chemicals).

No Requirement For Innovation

 Projects employing commercial technology preferred and may use renewable or fossil energy sources.

No Specific Location Requirement

 On tribal land, traversing or connecting tribal land and nontribal land, or outside of tribal land, but otherwise benefiting the tribe. Can involve a single site or distributed portfolio.

Limited To Partial Loan Guarantees Only, Requiring Non-federal Lenders

https://www.energy.gov/lpo/telgp
APPLICATION PROCESS

Pre-Application Consultation

• Start of a conversation directly with LPO staff about the project and about LPO’s process

Application Part I

• Determine basic eligibility
• Pay application fee (not applicable to ATVM)
• DOE aims to complete Part I review within 30 days
• Eligible applicants invited to submit Part II application

Part I Due Dates

• May 15, 2019
• July 17, 2019
• September 18, 2019
• November 1, 2019
• ATVM applications accepted on a rolling basis

Application Part II

• Evaluate creditworthiness, technical relevance & merit, technical approach, work plan, and construction plan, and legal, environmental & regulatory factors.
• Balance of application fee
• Eligible applicants invited into due diligence
WORKING WITH LPO

Interested in applying or learning more? Visit our website: https://www.energy.gov/lpo

Potential applicants are encouraged to contact DOE staff for a pre-application consultation to learn more about our process and requirements. To request a pre-application consultation:

• Email lpo@hq.doe.gov
• Call 202-586-8336