



LPO
Loan Programs Office

Program Overview

Title 17 Clean Energy Financing

National Association of State Utility
Consumer Advocates

Leslie Rich, Senior Consultant

July 17, 2023



LPO
Loan Programs Office

Updated 22 June 2023

What LPO Does



There are many areas that are mature from a technology standpoint but not mature from an access to capital standpoint — **that's a nexus where there's a clear mandate for LPO to participate.**

LPO Director Jigar Shah



The **U.S. Department of Energy Loan Programs Office (LPO)** works with the private sector to finance the deployment and scale-up of innovative clean energy technologies, build energy infrastructure and domestic supply chains, create jobs, and reduce emissions in communities across the United States.



A History of Portfolio Success Across Sectors

Over \$40 billion in innovative clean energy & advanced transportation loans and commitments

Advanced Nuclear | \$12 Billion

First AP1000 reactor in the U.S. (Vogtle)

Advanced Vehicles & Components | \$10.4 Billion

Accelerated domestic electric vehicles manufacturing.
(Ford, Nissan, Tesla, Ultium Cells)

Concentrating Solar Power | \$5.8 Billion

Five CSP plants utilizing diverse technologies.

Utility-Scale PV Solar | \$4.7 Billion

First five photovoltaic (PV) solar projects larger than 100 MW in the U.S.

Critical Materials | \$3.2 Billion

Supporting domestic supply chains for electric vehicles battery manufacturing in the U.S. (Li-Cycle, Redwood Materials, Rhyolite Ridge, Syrah Vidalia)

Virtual Power Plants | \$3.0 Billion

Landmark commitment to scale up access to DERs nationwide. (Hestia)

Wind Energy | \$1.7 Billion

Four onshore farms, including one of the world's largest. (Shepherds Flat)

Advanced Fossil | \$1 Billion

Conditional commitment for industrial decarbonization & clean hydrogen project. (Monolith)

Geothermal | \$546 Million

Innovative thermal extraction, revitalizing the sector.

Hydrogen | \$504 Million

Innovative clean hydrogen storage facility.
(Advanced Clean Energy Storage)

Transmission | \$343 Million

Advanced transmission lines for improved grid reliability. (One Nevada Line)

NOTE: Loan amounts represent the approximate amount of the loan facility approved at closing including principal and any capitalized interest.



Portfolio Impact

Catalyzing U.S. Markets

Over a decade of success in building a bridge to clean energy commercialization

Critical Materials Supply Chain

Financed critical minerals processing and recycling projects, supporting battery cell manufacturing and bolstering domestic EV supply chains.

Utility-Scale Renewables Innovation

Financed large-scale, innovative solar, wind, geothermal, and transmission projects across the West.

Advanced Auto Manufacturing

Financed the upgrade of advanced auto manufacturing facilities across the Midwest, creating tens of thousands of jobs.

Advanced Nuclear Energy

Financed the construction of the first new nuclear reactor in the U.S. in 30 years.



What LPO Offers Borrowers

LPO loans and loan guarantees are differentiated in the clean energy debt capital marketplace in **three primary ways:**



Access to Patient Capital

that private lenders cannot or will not provide.



Flexible Financing

customized for the specific needs of individual borrowers.



Committed DOE Partnership

offering specialized expertise to borrowers for the lifetime of the project.

Monthly Application Activity Report

June 2023



Monthly Application Activity Report

June 2023

150

ACTIVE APPLICATIONS¹

\$125.8

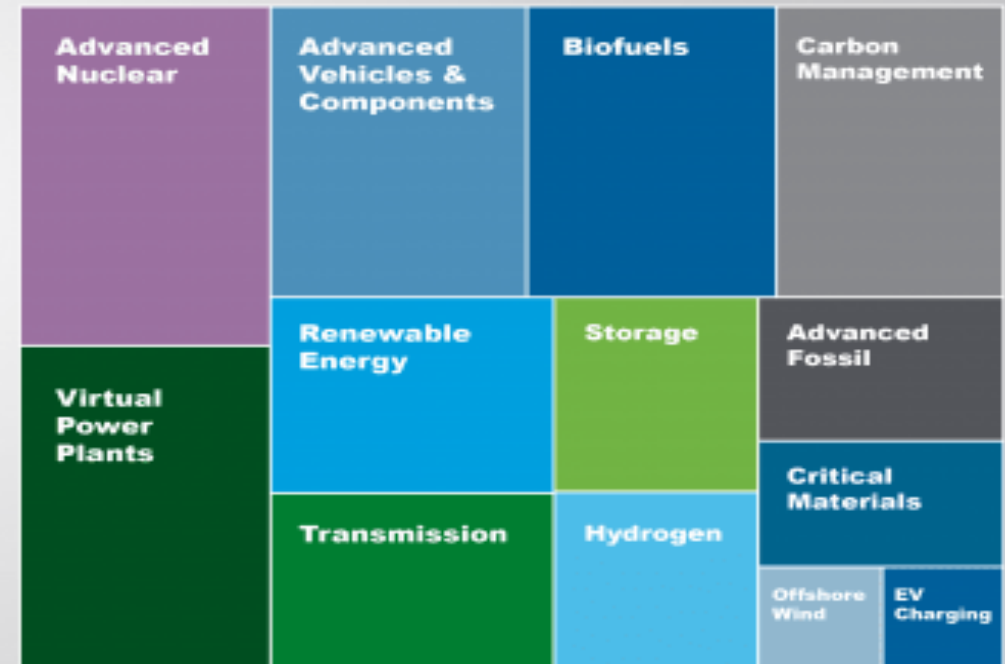
BILLION IN LOANS REQUESTED²

1.7

NEW APPLICATIONS PER WEEK³

\$125.8 BILLION

CURRENT AMOUNT OF LOANS REQUESTED BROKEN DOWN BY PROJECT TECHNOLOGY SECTORS



Notes

All data updated through June 30, 2023. For more details and a list of technology areas of interest within each LPO tech sector, see: [Energy.gov/lpo/maar](https://energy.gov/lpo/maar)

- 1) Active applications include applications that have been submitted by the project sponsor(s) through LPO's online application portal and are in different stages of active review and engagement by LPO and the applicant.
- 2) Individual requested loan amounts are estimated and potential, subject to change, and not necessarily representative of final financing terms. Requested loan amounts in current active applications do not affect available LPO loan authority. Figure rounded down to the nearest \$0.1 billion.
- 3) Current rolling average of new active applications per week over the previous 24 weeks. Figure rounded down to the nearest 0.1 application per week.



Monthly Application Activity Report

June 2023



Monthly Application Activity Report

June 2023



150 ACTIVE APPLICATIONS¹ WITH
185 PROPOSED PROJECT LOCATIONS
ACROSS ALL REGIONS OF THE U.S.²

WEST

AK, CA, HI, NV, OR,
WA (AS, GU, MP)

46

PLAINS

KS, ND, NE,
OK, SD, TX

29

SOUTH

AL, AR, KY, LA,
MO, MS, TN

20

SOUTHEAST

FL, GA, NC, SC
(PR, VI)

20

MID-ATLANTIC

DE, MD, NJ, PA,
VA, WV (DC)

19

NORTHEAST

CT, MA, ME, NH,
NY, RI, VT

18

MIDWEST

IL, IN, MI,
MN, OH, WI

17

MOUNTAIN

AZ, CO, ID, MT,
NM, UT, WY

16

Notes

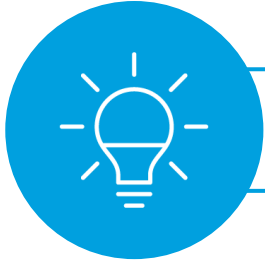
All data updated through June 30, 2023. For more details and a list of technology areas of interest within each LPO tech sector, see: [Energy.gov/LPO/MAAR](https://energy.gov/lpo/maar)

- 1) Active applications include applications that have been submitted by the project sponsors through LPO's online application portal and are in different stages of active review and engagement by LPO and the applicant.
- 2) Regions depicted are for representation purposes only and are not meant to denote LPO consideration of regional variation in project evaluation.



Updated 22 June 2023

LPO Financing Programs



Title 17 Clean Energy (Title 17)

Financing for:

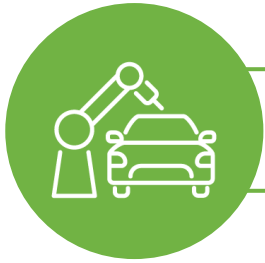
- Innovative Energy & Innovative Supply Chain (1703)
- State Energy Financing Institution (SEFI)-Supported (1703)
- Energy Infrastructure Reinvestment (EIR, 1706)



Tribal Energy (TELGP)

Financing for:

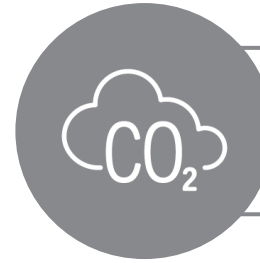
- Tribal energy development projects



Advanced Transportation (ATVM)

Financing for:

- Manufacturing of advanced technology vehicles, several modes of ATVs, components, and EV charging infrastructure



CO₂ Transportation Infrastructure (CIFIA)

Financing for:

- Large-capacity, common carrier CO₂ transportation projects

Title 17 Clean Energy Project Categories



Innovative Energy (1703)

Financing for commercial-scale deployment of innovative energy projects.



Innovative Supply Chain (1703)

Financing for commercial-scale deployment of innovative manufacturing processes and technologies.



State Energy Financing Institutions (1703)

Financing that aligns federal dollars with state clean energy priorities.



Energy Infrastructure Reinvestment (1706)

Financing to leverage existing U.S. energy infrastructure for the clean energy future.

Title 17 Program Eligibility

All Projects Must:

1. Be located in the United States, territories, or possessions.
2. Be an energy-related project.
3. Achieve significant and credible GHG or air pollution reductions.
4. Have a reasonable prospect of repayment.
5. Involve technically viable and commercially ready technology.
6. Include a Community Benefits Plan.
7. Not benefit from prohibited federal support.

Category-Specific Requirements:

Projects must also meet additional requirements specific to their category:



Innovative Energy (1703)



Innovative Supply Chain (1703)



State Energy Financing Institutions (1703)



Energy Infrastructure Reinvestment (1706)

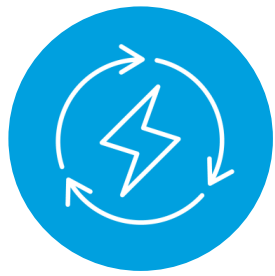


TITLE 17
Energy
Infrastructure
Reinvestment (EIR)
Projects (1706)

Energy Infrastructure Reinvestment (EIR) Projects (1706)

EIR projects retool, repower, repurpose, or replace energy infrastructure that has ceased operations or enable operating energy infrastructure to reduce air pollutants or emissions of greenhouse gases.

EIR projects are not required to employ innovative technology.



Energy Infrastructure Reinvestment

1706

Financing to leverage existing U.S. energy infrastructure for the clean energy future

Project Eligibility

In addition to meeting the common Title 17 eligibility requirements, EIR projects must:

1. Retool, repower, repurpose, or replace energy infrastructure that has ceased operations, **OR**
2. Enable operating energy infrastructure to avoid, reduce, utilize, or sequester air pollutants or anthropogenic emissions of greenhouse gases.

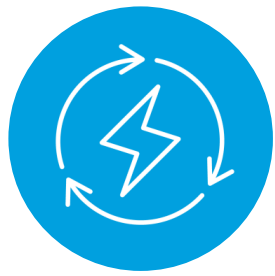
What is “Energy Infrastructure”?

A facility, and associated equipment, used for:

- The generation or transmission of electric energy;
- OR**
- The production, processing, and delivery of fossil fuels, fuels derived from petroleum, or petrochemical feedstocks.

Notes

- EIR projects **DO NOT** have an innovation requirement.
- Conditional commitments must be issued by **September 30, 2026**.
- **Environmental remediation costs and refinancing outstanding indebtedness directly relevant to the energy infrastructure** can be eligible for EIR financing as part of a larger reinvestment plan.



Financing to leverage existing U.S. energy infrastructure for the clean energy future

Example Projects

- Power plant (or associated infrastructure) retooled, repowered, repurposed or replaced with:
 - Renewable energy (and storage)
 - Distributed energy (e.g., VPPs)
 - Transmission interconnection to off-site clean energy
 - New manufacturing facilities for clean energy products or services
 - Nuclear generation
- Reconductoring transmission lines and upgrading voltage
- Installing emissions control technologies, including carbon capture and sequestration (CCS)
- Repurposing oil and gas pipelines (e.g., for H₂, CO₂)
- Upgrading refineries for biofuels or hydrogen
- Upgrading or uprating existing generation facilities (with emissions control technologies for projects involving fossil generation)

Title 17 Lending Overview

Loan Guarantee Features

- No minimum or maximum loan size
- Total loan amount up to 80% of eligible project costs.
- Loan guarantees (up to 100%) of U.S. Treasury's Federal Financing Bank (FFB) loans, or partial guarantees (up to 90%) of commercial loans
- Applicants **do not** apply directly to FFB; Title 17 loan applications are managed through LPO
- Typically structured as project financing, but LPO can accommodate other structures.

Loan Products

- Direct loan from FFB backed by 100% "full faith and credit" DOE guarantee
- DOE partial guarantee of commercial debt from Eligible Lenders

Interest Rates and Fees

Interest Rate (for FFB loans)

- Treasury + 3/8ths (0.375%) + risk-based charge
- Treasury rate is fixed according to loan tenor (maximum 30 years)

No Application Fees

Transaction Costs

- External advisor fees

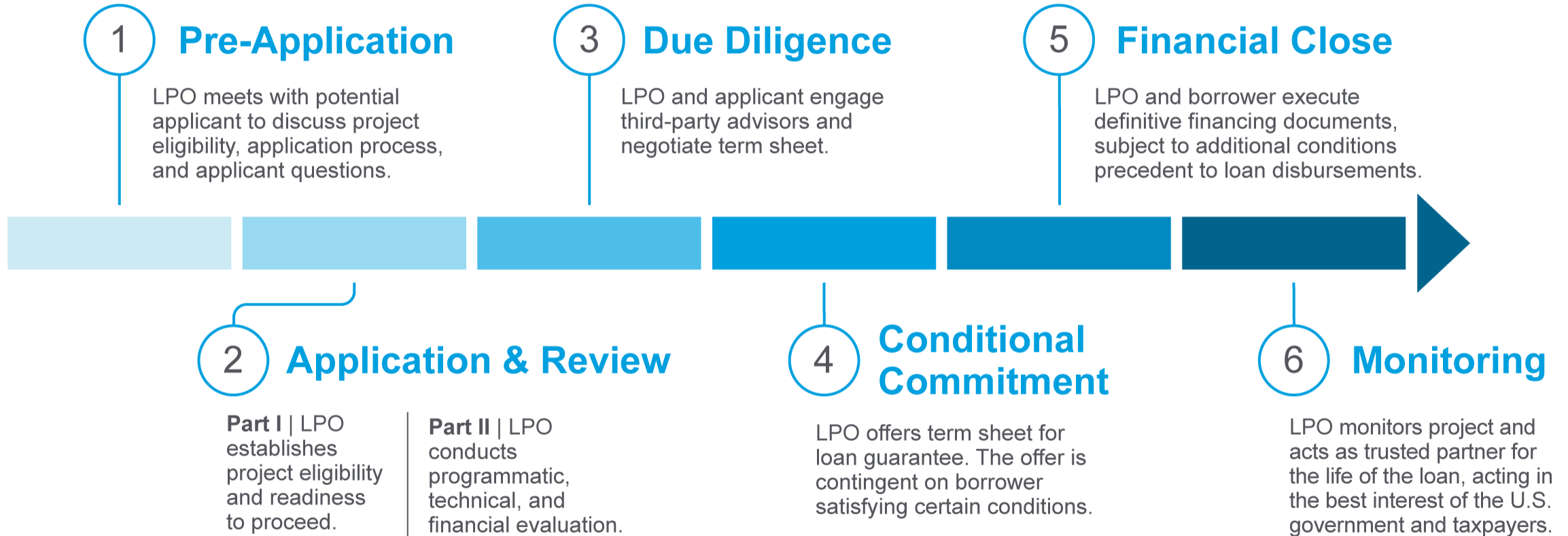
Fees

- Facility fee (0.6% on first \$2.0bn, 0.1% for excess; required at financial close)
- Maintenance fee (required annually post-closing)



Title 17 Loan Transaction Process

- LPO engages early with applicants and remains a partner for the lifetime of the loan



Discussion

Common questions that we receive

- **Can I apply for both a loan and a grant?**
- **Is there a minimum or maximum project size (total cost)?**
- **Can I file multiple applications?**
- **What is the application process? How long and burdensome is it?**
- **How do customers and communities benefit from using LPO financing?**

We want to help!

- **Do you see value in LPO financing?**
- **What do you need, or will you need to see, to make LPO financing useful?**



Let's Talk About Your Project

Contact LPO to see what financing options may be available for your project

Questions?



Leslie Rich
Senior Consultant, Loan Programs Office
Leslie.rich@hq.doe.gov
(301) 550-0257



Download the full Title 17 Guidance document at: [Energy.gov/LPO/Clean-Energy](https://www.energy.gov/LPO/Clean-Energy)

Learn more about LPO and all of its financing programs at: [Energy.gov/LPO](https://www.energy.gov/LPO)