



# **Deployment • Innovation • Liftoff**

# **Financing American Energy**

**Title 17 Clean Energy Programs**

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# 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.

# The Next Generation of LPO Financing

LPO is working with stakeholders across innovative clean energy & advanced transportation sectors



## Advanced Vehicles & Components

Vehicles • Components • Lightweighting  
• Manufacturing • Electric Vehicle (EV)  
Battery Manufacturing



## Biofuels

Advanced Biofuels • Biodiesel •  
Cellulosic Biofuels • Renewable  
Diesel • Renewable Natural Gas  
(RNG) • Sustainable Aviation  
Fuel (SAF)



## Critical Materials

Extraction • Manufacturing • Mining •  
Processing • Recovery • Recycling



## EV Charging

Deployment • Manufacturing



## Hydrogen

Generation • Infrastructure •  
Transportation



## Offshore Wind

Offshore Wind Generation • Offshore  
Wind Supply Chain & Vessels



## Renewable Energy

Electrification • Geothermal •  
Hydrokinetics • Hydropower •  
Repowering Onshore Wind • Solar  
Supply Chain • Waste Conversion



## Storage

EV Bidirectional Storage • Newer  
Battery Chemistries & Flow Batteries •  
Compressed Air Energy Storage •  
Pumped Storage Hydropower •  
Thermal Energy Storage



## Transmission

Grid Efficiency • Grid Reliability •  
High-Voltage Direct Current (HVDC)  
Systems • Offshore Wind Transmission  
• Systems Sited Along Rail & Highway  
Routes



## Virtual Power Plants

Connected Distributed Energy  
Resources (DERs)



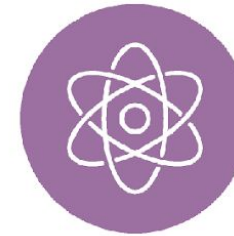
## Advanced Fossil

Carbon Feedstock Waste Conversion •  
Fossil Infrastructure Repurposing &  
Reinvestment • Hybrid Generation •  
Hydrogen Generated From Fossil  
Sources • Synfuel



## Carbon Management

Carbon Capture & Storage (CCS) •  
Carbon Dioxide Removal (CDR) •  
Direct Air Capture (DAC) • Industrial  
Decarbonization • CO<sub>2</sub>  
Transportation Infrastructure



## Advanced Nuclear

Advanced Nuclear Reactors •  
Micro Reactors • Nuclear Fuel Cycle •  
Nuclear Supply Chain •  
Nuclear Upgrades & Upgrades •  
Small Modular Reactors (SMRs)



## Tribal Energy

Energy Development Projects •  
Energy Storage • Fossil Energy •  
Microgrids • Renewable Energy •  
Transmission Infrastructure •  
Transportation of Fuels

# Title 17 Lending Overview

## General Terms & Considerations

- The amount of the LPO-guaranteed obligation cannot exceed 80% of eligible project costs (as defined by statute and regulations and determined by LPO).
- The tenor of the guaranteed obligation cannot exceed the lesser of (a) 30 years and (b) 90% of the projected useful life of the assets.
- LPO cannot be subordinated to any other financing.
- With limited exceptions, the project generally cannot benefit (directly or indirectly) other Federally appropriated funds.
- Projects receiving LPO support must comply with applicable Federal laws and requirements including but not limited to NEPA, Davis Bacon, and the Cargo Preference Act; BABA for government and nonprofit borrowers.

## Lender/Guarantee Options

- Direct loan from U.S. Treasury's Federal Financing Bank (FFB) backed by 100% "full faith and credit" DOE guarantee. Note: Applicants **do not** apply directly to FFB; Title 17 loan applications are managed through LPO.
- DOE partial guarantee (up to 90%) of commercial debt from Eligible Lenders.

## Interest Rates and Fees

**Interest Rate** (see "Credit Based Interest Rate Spread" slide)

- Base cost of capital for FFB loans: Treasury + 3/8ths (0.375%)
  - Fixed at the time of each draw according to the Treasury rate for the applicable tenor as of that date
- Credit-based interest rate spread or risk-based charge

**Fees & Costs** (see "Fees and Costs" slide)

- No application fees
- Facility fee (due at or before financial close)
  - 0.6% on first \$2 billion of commitment; 0.1% for portion exceeding \$2 billion
- Maintenance fee of up to \$500,000 annually post-closing

*Note: These fees are not eligible costs – applicant may not finance them using the guaranteed obligation.*

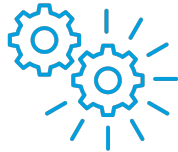
- Applicant pays for both its own and DOE's external advisors as incurred

# Title 17 Clean Energy Project Categories



## **Innovative Energy (1703)**

Financing for commercial-scale deployment of innovative energy projects.



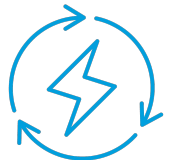
## **Innovative Supply Chain (1703)**

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**  
**State Energy**  
**Financing Institution**  
**(SEFI)-Supported**  
**Projects (1703)**

# State Energy Financing Institution (SEFI) Projects (1703)

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**SEFI projects** support deployment of a qualifying clean energy technology and receive meaningful financial support or credit enhancements from an entity within a state agency or financing authority.

SEFI projects are not required to employ innovative technology.



# SEFI Project Requirements

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WV Public Energy Authority as a SEFI

**In addition to receiving qualifying SEFI support, projects must:**

- ✓ Reduce greenhouse gas emissions.
- ✓ Have a reasonable prospect of repaying the loan, as assessed during LPO's rigorous due diligence.
- ✓ Employ at least one of 13 eligible technologies.

Note: Projects do not have to use innovative tech.

# Capital Stack Visual: SEFI As Investor

*For larger projects  
that apply to LPO...*

At least 20% of  
project cost



LPO loan (maximum 80% of total  
project cost, expect less)

SEFI meaningful support investment to  
qualify under Title 17 with no technology  
innovation requirement

Sponsor and private equity (could  
be philanthropic)



# Capital Stack Visual: SEFI As Borrower

*Purpose is lending to projects that are too small to apply directly to LPO*

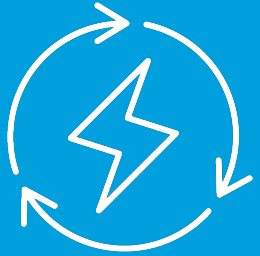
At least 20% of project cost



LPO loan (maximum 80% of total project cost, expect less)

SEFI meaningful support investment to qualify under Title 17 with no technology innovation requirement

Equity capital organized by SEFI; SEFI/SPV is project sponsor and borrower



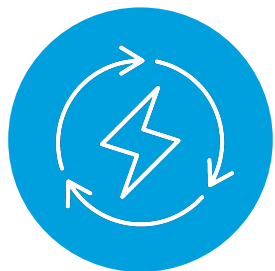
**TITLE 17**  
**Energy**  
**Infrastructure**  
**Reinvestment (EIR)**  
**Projects (1706)**

# Energy Infrastructure Reinvestment (EIR) Projects (1706)

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**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.

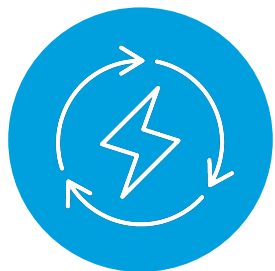
## What is “Energy Infrastructure”?

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.



# Energy Infrastructure Reinvestment

1706

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 H<sub>2</sub>, CO<sub>2</sub>)

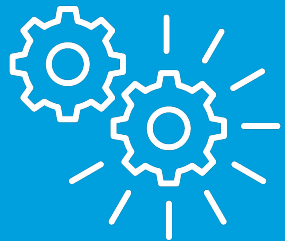


- Upgrading refineries for biofuels or hydrogen



- Upgrading or uprating existing generation facilities (with emissions control technologies for projects involving fossil generation)

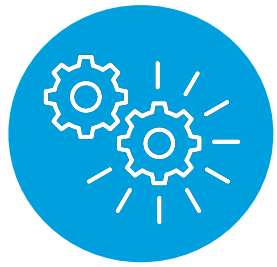




**TITLE 17**  
**Innovative Supply**  
**Chain Projects**  
**(1703)**

# Innovative Supply Chain Projects (1703)

**Innovative Supply Chain projects** employ a New or Significantly Improved Technology in the manufacturing process for a qualifying clean energy technology, or manufacture a qualifying New or Significantly Improved Technology.



# Innovative Supply Chain Projects

1703

Financing for commercial-scale deployment of innovative manufacturing processes & technologies

## Project Eligibility

In addition to meeting the common Title 17 eligibility requirements, Innovative Supply Chain projects must:

1. Involve at least one 1703 **Eligible Technology**
2. Meet the **innovation requirement** – projects must deploy a *new or significantly improved technology* through:
  - the manufacturing process OR
  - the relevant product itself

**Note:** Innovative Supply Chain projects may avoid, reduce, utilize, or sequester air pollutants or anthropogenic GHG emissions through either:

- the manufacturing process OR
- the end-use of the component on a full life-cycle basis

## Changes

**Expanded eligibility** for projects involving **manufacturing, industrial decarbonization, and critical materials.**



# Opportunities for West Virginia

Transforming the legacy energy landscape with advanced nuclear

## LPO financing for nuclear power plants and supply chains

Repurposing retiring coal power plants as nuclear generation facilities using financing from the Section 1706 Energy Infrastructure Reinvestment Program

Support nuclear manufacturing and supply chain buildout through the 1703 Innovative Energy and Supply Chain program



Supporting new jobs and attracting new businesses

## Other supporting constructs

Tech companies like Google and Microsoft need a lot more power and could catalyze new nuclear builds

Utilities adopt a consortium model to get to critical mass of 5-10 orders by reactor design



Consortium partnerships provide runway to realize NOAK cost benefits

# Let's Talk About Your Project

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

## Questions?



To **schedule** a no-fee, pre-application consultation, go to:  
[Energy.gov/LPO/Pre-App](https://www.energy.gov/LPO/Pre-App)

Call or write the LPO Team: **202-287-5900** | [LPO@hq.doe.gov](mailto:LPO@hq.doe.gov)



**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)



# SEFI Opportunity – How SEFIs Can Support Projects

For SEFIs, making awards to LPO applicants is typically more straightforward than applying to LPO directly, but some SEFIs may choose the latter based on program goals.

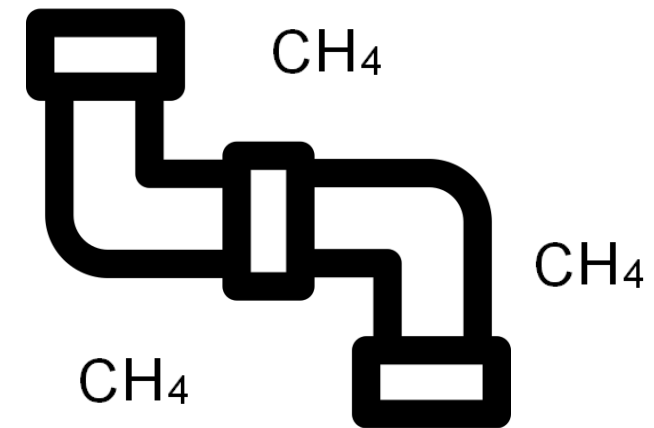
| Option 1: SEFI Provides Qualifying Awards to LPO Applicants  | Option 2: SEFI Bundles Projects into SPV; SPV Applies Directly to LPO  |
|--|--|
| Enables large projects to qualify for LPO financing under the SEFI project category but does not create capital pool for smaller projects. | Creates a capital pool for smaller projects that couldn't apply to LPO on their own. (Note: an SPV is not a requirement.)  |
| SEFI does not need to provide information about the projects.  | Requires significant detail about bundled projects, including a portfolio rating.  |
| SEFI is only responsible for providing awarded funds.  | Requires the SEFI not only to contribute "meaningful support" but also ensure that the SPV will receive "significant equity" (IFR 609.5(b)(5)) from non-LPO sources. |
| SEFI exposure is limited to the amount of the award, with no additional requirements.  | Means the SEFI would take on risk and have compliance requirements and liabilities, application costs, and upfront fees.   |



# Example application: Gas Pipeline Replacement

## Project Description:

- Program seeking to renew legacy pipeline infrastructure to reduce methane leaks.
- Over 4,000 miles needed replacement. On track to complete at a rate of ~200 miles per year.
- Investments would improve distribution system safety and reliability and remove ~1.4m metric tons of GHGs per year by 2050



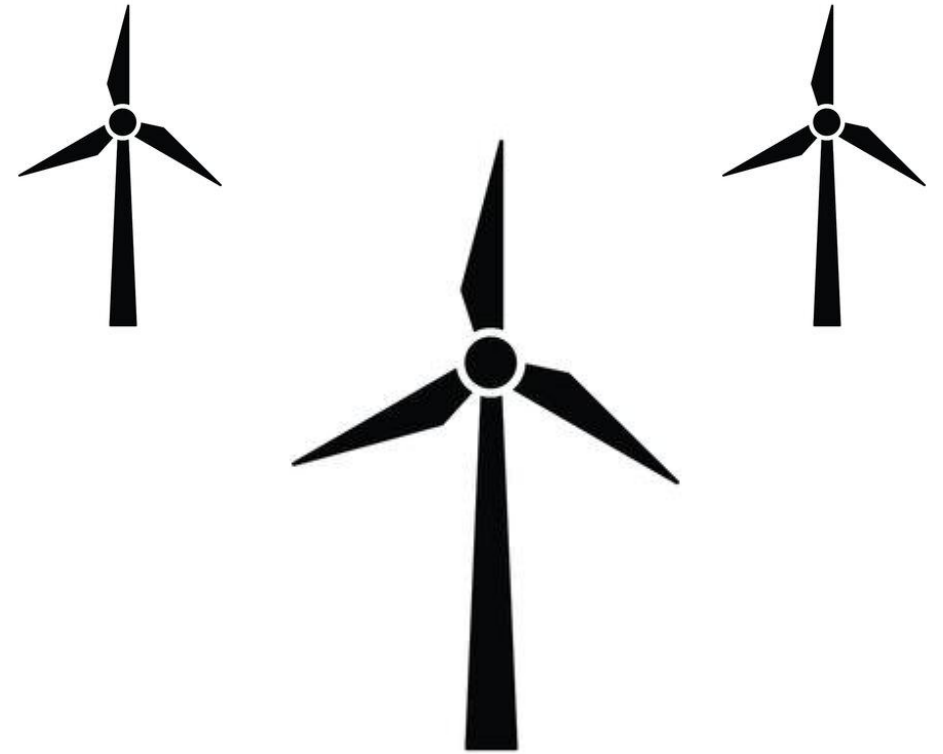
## EIR Qualification

1706 a(2): The project will enable operating Energy Infrastructure to avoid and reduce GHG emissions.

# Example application: Wind repowering

## Project Description:

- Existing onshore wind assets identified for upgrades. Improvements will be made to blades, gearboxes, hubs, generators, and other components
- Market size potentially tens-of-GW that could be vital to meeting the US's 2030 climate goals by ensuring wind projects are not shut down prematurely and existing developed land and transmission are used efficiently.
- LPO funding would make marginal projects feasible and prolong the life of assets.



## EIR Qualification

1706 a(2): The project will enable operating Energy Infrastructure to avoid and reduce GHG emissions.

# Example deal: Transmission Upgrades

## Project Description:

- Multi-billion proposal for **transmission reconductoring** and grid modernization across multiple RTOs.
- Investments could improve capacity by 50%, while avoiding / limiting challenges associated with construction of new transmission.
- Projects will **enable interconnection of new clean generation**, and address safety and reliability risks associated with aging infrastructure.



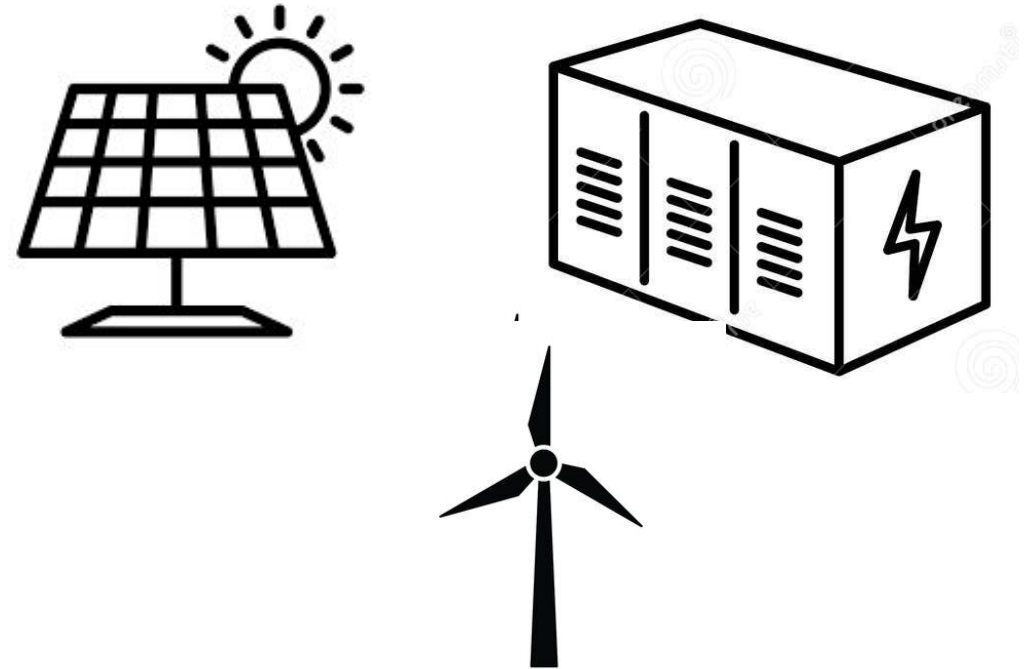
## EIR Qualification

1706 a(2): The project will enable operating Energy Infrastructure to avoid and reduce GHG emissions.

# Example deal: Fossil to Renewable Portfolio

## Project Description:

- IRP identifies 2,400 MW of new renewables and storage will replace **1,400 MW of announced coal retirements**
- **Identified near-term investments:** 2 projects, combined ~500 MW solar and ~200 MW storage
- **Planned additional investments:** ~1,000 MW solar, ~200 MW storage, and ~500 MW wind
- Rebuild or refurbish existing hydro generation (approx. 100 MW existing capacity)



## EIR Qualification

1706 a(1): The project will retool, repower, repurpose or replace retiring fossil energy infrastructure.