



**LPO**  
Loan Programs Office

# Financing American Energy and Jobs

Presented by

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LPO Outreach & Business Development

August 14, 2024



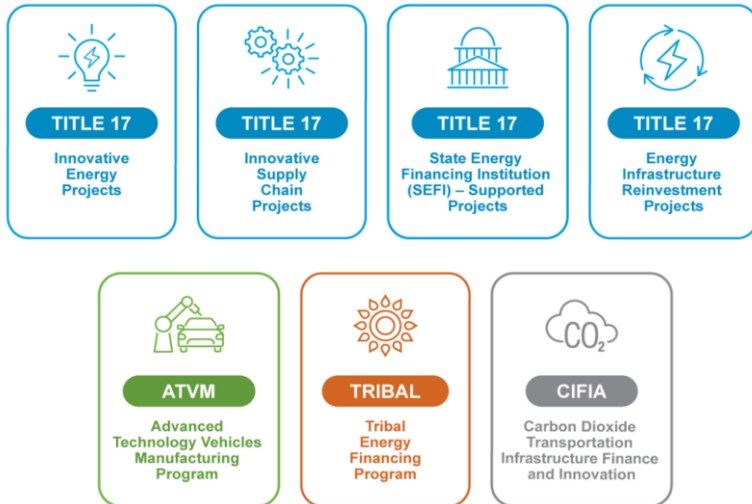
**LPO**  
Loan Programs Office

# What is the Loan Programs Office (LPO)?

## LPO is...

the **premier public financing partner** accelerating high-impact energy and manufacturing investments to advance America's economic future.

## How do we do it?



- ✓ By **providing attractive debt financing** for high-impact, large-scale (\$100M+) energy infrastructure projects in the U.S.
- ✓ With **tens of billions of dollars** in available loan and loan guarantee authority.
- ✓ Via **seven loan programs & project categories** supporting both innovative and commercial technologies.



# 209

**ACTIVE**  
APPLICATIONS <sup>1</sup>

# \$281.1

**BILLION**  
IN LOANS REQUESTED <sup>2</sup>

# 1.2

**NEW**  
APPLICATIONS PER WEEK <sup>3</sup>

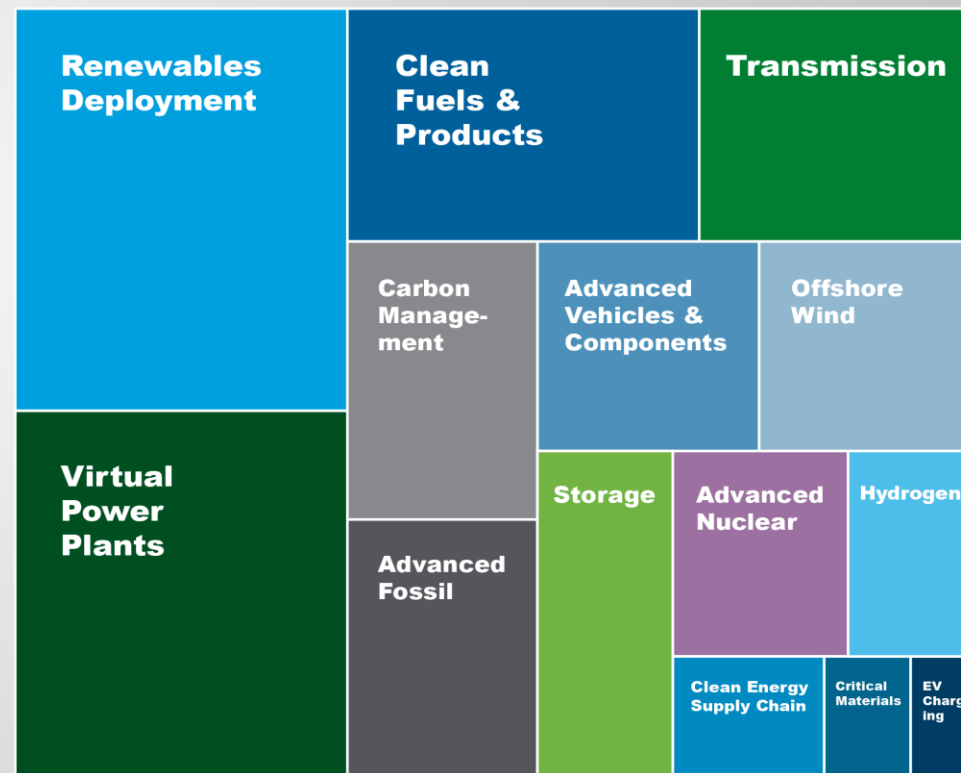
Notes

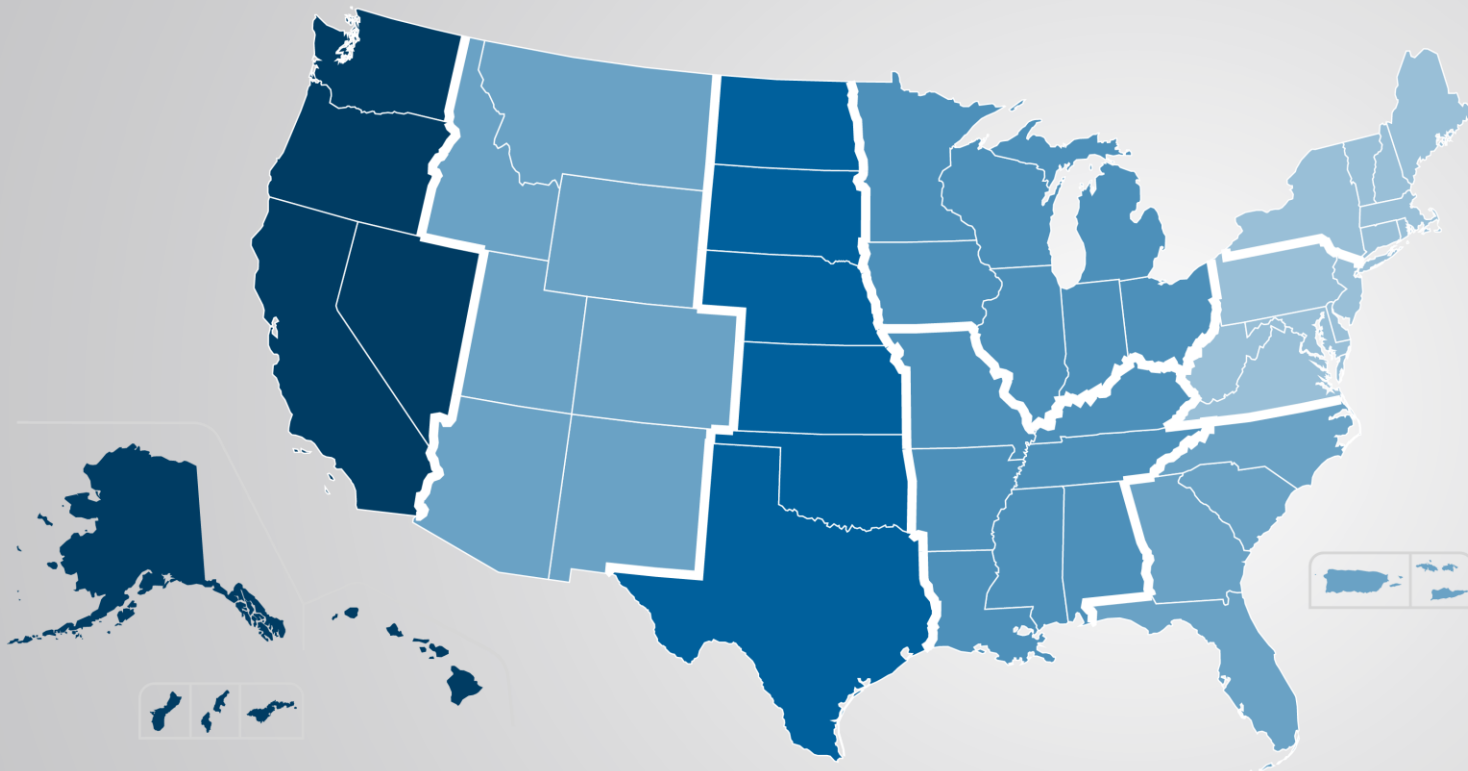
All data updated through July 31, 2024. For more details and a list of technology areas of interest within each LPO tech sector, see: [Energy.gov/LPO/MAAR](https://www.energy.gov/LPO/MAAR)

- 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. Active application count does not include publicly announced conditional commitments.
- 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.

## \$281.1 BILLION

CURRENT AMOUNT OF LOANS REQUESTED BROKEN DOWN BY PROJECT TECHNOLOGY SECTORS





**209** ACTIVE APPLICATIONS <sup>1</sup> WITH  
**255** PROPOSED PROJECT LOCATIONS  
ACROSS ALL REGIONS OF THE U.S. <sup>2</sup>

<b>WEST</b>	AK, CA, HI, NV, OR, WA (AS, GU, MP)	<b>56</b>
<b>PLAINS</b>	KS, ND, NE, OK, SD, TX	<b>37</b>
<b>MIDWEST</b>	IA, IL, IN, MI, MN, OH, WI	<b>30</b>
<b>SOUTH</b>	AL, AR, KY, LA, MO, MS, TN	<b>30</b>
<b>MOUNTAIN</b>	AZ, CO, ID, MT, NM, UT, WY	<b>27</b>
<b>SOUTHEAST</b>	FL, GA, NC, SC (PR, VI)	<b>27</b>
<b>MID-ATLANTIC</b>	DE, MD, NJ, PA, VA, WV (DC)	<b>25</b>
<b>NORTHEAST</b>	CT, MA, ME, NH, NY, RI, VT	<b>23</b>

**Notes**

All data updated through July 31, 2024. For more details and a list of technology areas of interest within each LPO tech sector, see: [Energy.gov/LPO/MAAR](https://www.energy.gov/LPO/MAAR)

- 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. Active application count does not include publicly announced conditional commitments.
- Regions depicted are for representation purposes only and are not meant to denote LPO consideration of regional variation in project evaluation.

# 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.

# 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

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

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

**SEFI projects** support deployment of a qualifying clean energy technology and receive meaningful grants, financial support or credit enhancements from a state-level entity agency or entity.

SEFI projects are not required to employ innovative technology.

# SEFI Opportunity – What is a SEFI?

A “State Energy Financing Institution,” or “SEFI,” is an LPO designation for a State agency or State quasi-governmental entity that provides financial support to energy-related projects.

## Examples of Various Types of SEFI Entities



### State Energy Offices

*Ex. Pennsylvania Energy Development Authority*



### Housing Finance Agencies

*Ex. Washington State Housing Finance Commission*



### Green Banks

*Ex. Connecticut Green Bank*



### Economic Development Authorities

*Ex. Alaska Industrial Development and Export Authority*



### Energy Funds/Lending Centers

*Ex. Maryland Clean Energy Center*



### Other State Agencies

*Ex. Ohio Air Quality Development Authority*

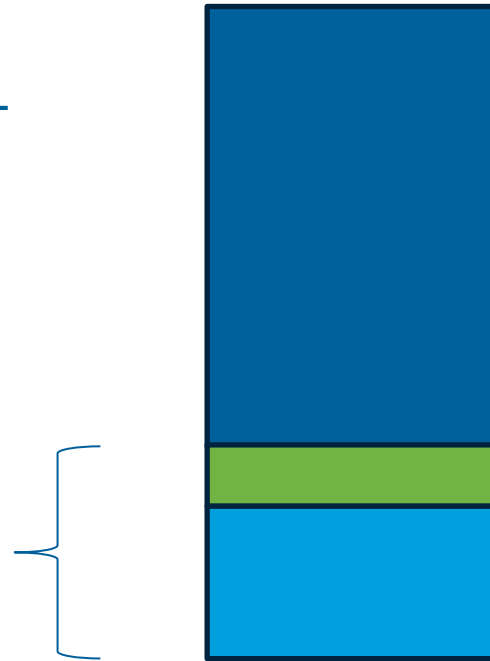




# Capital Stack Visual: SEFI As Project Supporter

*For larger projects that can apply to LPO (Approx \$130M + in size)*

At least 20% of project cost



LPO loan (maximum 80% of total project cost, typically 50 – 70%)

SEFI meaningful support (grant, loan, investment or other support) to qualify under Title 17 with no technology innovation requirement

Sponsor and private equity investment, subordinated debt, philanthropic funding

# Capital Stack Visual: SEFI As Borrower

*Purpose is Establishing a Fund which can lend to projects that are too small to apply directly to LPO (Below \$100M in project size)*

At least 20% of project cost



LPO loan (maximum 80% of total project cost, typically 50 – 70%)

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

Equity capital organized by SEFI, could include philanthropic; SEFI/SPV is project sponsor and borrower

# 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).
- LPO generally encourages applicants to consider greater than **\$100M** loan requests due to costs.
- 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) from other Federally appropriated funds.

## 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

- 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

- 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 annually post-closing
- **Applicant pays for both its own and DOE's external advisors as incurred**



# Additional LPO Requirements

*Please review the guidance for detailed information on federal requirements and restrictions, including:*

- ❑ **Davis Bacon:** All construction (including installation) work must be paid weekly at prevailing wage.
- ❑ **Build America Buy America (BABA):** Nonprofit and government borrowers must demonstrate domestic content or obtain a waiver.
- ❑ **National Environmental Policy Act (NEPA):** The environmental impact of all projects will be reviewed. These projects could benefit from review through categorical exclusion provisions for projects on existing buildings, small solar installations.
- ❑ **Federal Support restriction:** Projects generally cannot benefit (directly or indirectly) from other federal support.
  - ✓ Federal income tax credits generally do not constitute prohibited federal support.
- ❑ **Cargo Preference Act (CPA):** If goods must be shipped into the US for the project, a sufficient portion must be demonstrated to have arrived on US flag vessels, or non-availability must be demonstrated.



# SEFI Potential Projects (1 of 3)

## Virtual Power Plants

VPPs = For ex., solar + storage + heat pumps, all controllable and grid interactive

Following are just a few of the potential models for residential or commercial:

- Energy office provides SEFI support to VPP company as LPO applicant to implement in State.
- Green bank provides SEFI support for pool of low-cost loans for consumers.
- On-bill financing by Utility for solar/storage; Utility provides lower rates to consumer by using LPO, State support.

## Affordable Housing

- Affordable housing owner retrofits buildings to create VPPs, achieve net zero.
- Housing agency makes SEFI award



# SEFI Potential Projects (2 of 3)

## District energy systems, higher ed

- Higher ed campuses implement energy projects.
- ESCO or campus system as borrower.

## Industrial decarb / green jobs

- SEFI provides economic development incentive to company to make decarb investments across multiple facilities. Company applies to LPO.
- Or, SEFI borrows to create capital pool for smaller projects.
- For ports, or logistics, or other sectors with smaller businesses that operate fleets, SEFI borrows from LPO to provide low-cost financing to companies to procure EV's with storage/VPP services.

*In all cases, SEFI provides grant or other meaningful support to the project.*



# SEFI Potential Projects (3 of 3)

## Community energy projects

1. State creates SPV that applies to LPO
2. State provides equity and owns equipment, claims tax credits
3. SPV offers local agencies (schools, governments, etc) opportunity for solar/storage, geothermal, etc through leases/contracts.
4. State/contracts provide guarantee to project, reducing cost and application time

*In all cases, SEFI provides grant or other meaningful support to the project.*

## Government building decarbonization

- Government aggregates portfolio of government buildings
- Government procures energy project anticipating LPO financing
- Project company applies to LPO

## Commercial building decarbonization

- Real estate owner or energy services company applies to LPO with SEFI investment allowing non-innovative tech
- Or, SEFI borrows from LPO to make smaller awards from LPO backed capital pool.



# Application Instructions on LPO website

## TITLE 17 CLEAN ENERGY FINANCING

Loan Programs Office

Loan Programs Office » TITLE 17 CLEAN ENERGY FINANCING

### Overview

The following overview summarizes the Title 17 Clean Energy Financing Program. For detailed information on the Clean Energy Financing Program, please refer to:

- **Title 17 Program Guidance:** This Guidance provides a comprehensive program overview.
- **Part I and Part II Application Instructions**
- **Title 17 Interim Final Rule** : The Rule amends Title 17 regulations to implement changes that expand or modify program authority and to revise for clarity and organization.
- **Governing Documents:** LPO's programmatic governing documents detail statutory and

The image shows the cover and contents page of the 'TITLE 17 CLEAN ENERGY FINANCING PROGRAM Part I Application Instructions' document. The cover page features the LPO logo, the title in large blue letters, and the subtitle 'Part I Application Instructions'. It also includes OMB Control Number: 1910-5134, OMB Expiration Date: February 28, 2026, and Original Issue Date: May 19, 2023. The bottom half of the cover has a blue background with a network of glowing icons representing various energy and financial concepts. The contents page lists the following sections and their page numbers:

Section	Page Number
Part I Application	3
Submission Requirements	5
A. Application Information	5
B. Organization	7
C. Project Description	7
D. Technical Information	9
E. Legal and Regulatory Information	13
F. Application Certifications	15
Attachments	18
I.A. Lifecycle GHG Emissions Data Requirements	18
I.B. Waiver Request for Foreign Entity Participation	19
I.C. Application Submission Instructions	21

At the bottom right of the contents page, there is a blue bar with the text 'PART I APPLICATION INSTRUCTIONS | 2'.



# Credit-based Interest Rate Spread

Projects qualifying for Title 17 under SEFI authority are credit rated and assessed a credit-based interest rate spread.

Requests for reductions to credit-based interest rate spreads are considered based on policy elements and the availability of appropriated funds.

[Pricing for LPO Financing by Program | Department of Energy](#)

## Credit-Based Interest Rate Spread for Title XVII

The Loan Programs Office (LPO) is announcing that a credit-based interest rate spread will be added to certain loans that are issued by the Federal Financing Bank (FFB) and backed by a 100 percent loan guarantee issued by the Department of Energy.

Loans issued by the FFB will carry an interest rate calculated by the following formula:

**Interest Rate** = Applicable U.S. Treasury Rate for the tenor of the loan + 37.5 basis points (bps) FFB liquidity spread (standard across all Title XVII loans) + Applicable Credit-Based Interest Rate Spread

The credit-based interest rate spread will be applied to Title XVII transactions that:

- Demonstrate the ability to predictably generate sufficient cash flow to service the borrower's debt obligations over the life of the loan guarantee, including transactions that have long-term power purchase agreements, and are not subject to unhedged market-based pricing risk; and
- Are able to provide a rating from a nationally recognized third party credit rating agency that falls within the range of ratings covered in the table below.

The credit-based interest rate spread will be determined based upon the following table. LPO will update this table periodically.

Project Credit Rating	Credit-Based Interest Rate Spread (%)	Final FFB Interest Rate Spread (%)
AAA	0.000	0.375
AAA-	0.000	0.375
AA+	0.000	0.375
AA	0.000	0.375
AA-	0.035	0.410
A+	0.075	0.450
A	0.115	0.490
A-	0.185	0.560
BBB+	0.265	0.640
BBB	0.335	0.710
BBB-	0.525	0.900
BB+	0.725	1.100
BB	0.925	1.300
BB-	1.125	1.500
B+	1.295	1.670
B	1.475	1.850
B-	1.625	2.000



# Let's Talk About Your Project

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

## Questions?

We are here to work with you! We meet regularly with potential applicants and provide feedback on their concepts.

Reach out to us with SEFI questions at [SEFI@hq.doe.gov](mailto:SEFI@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 Program Playbook for States

A New Resource from RMI



**RMI is an independent, nonprofit organization of experts accelerating the clean energy transition.**

**Our mission is to transform the global energy system to secure a clean, prosperous, zero-carbon future for all.**



# The US energy transition is now in full swing.

Clean energy investment in the U.S. has quadrupled since 2018 (millions of USD)

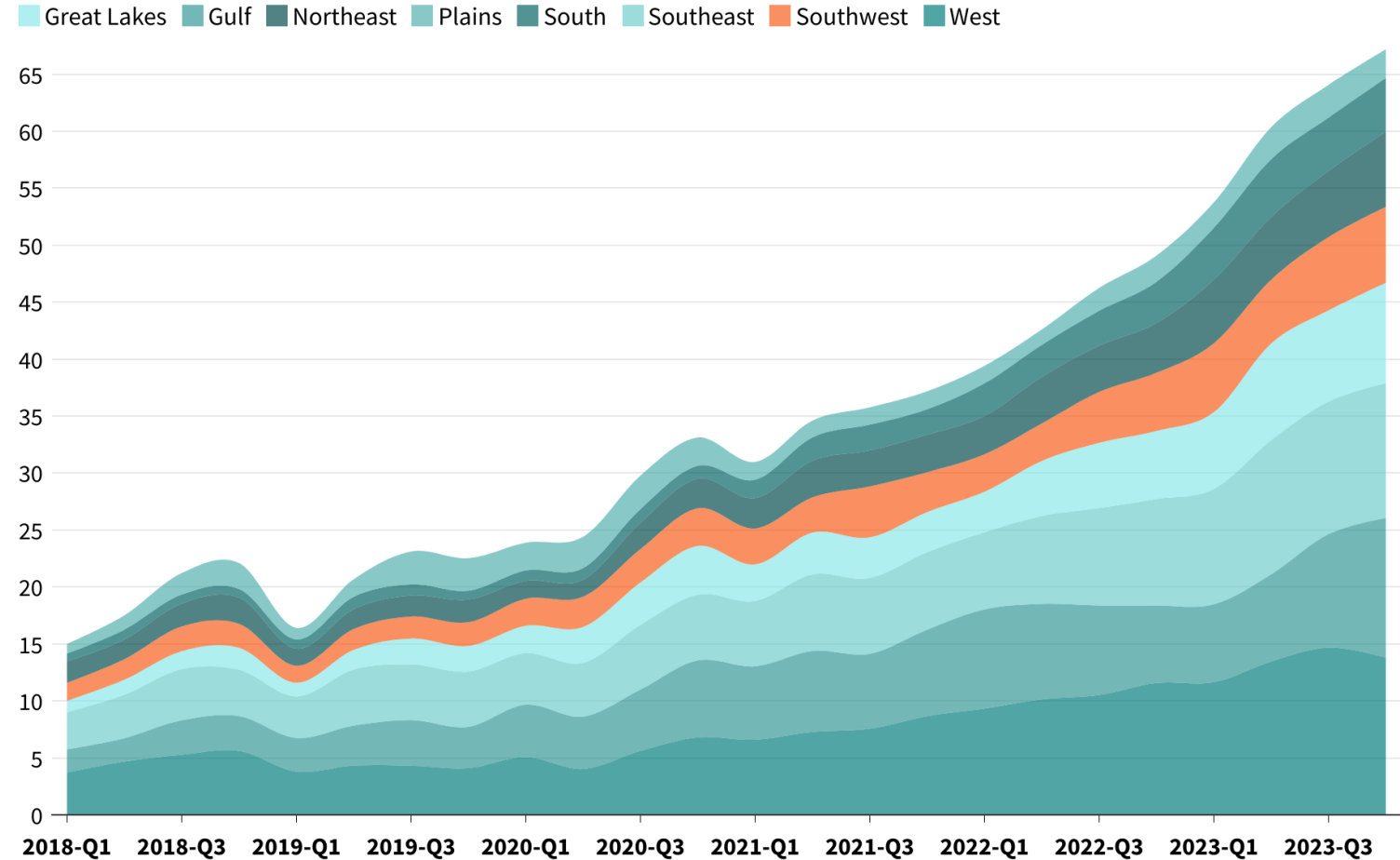


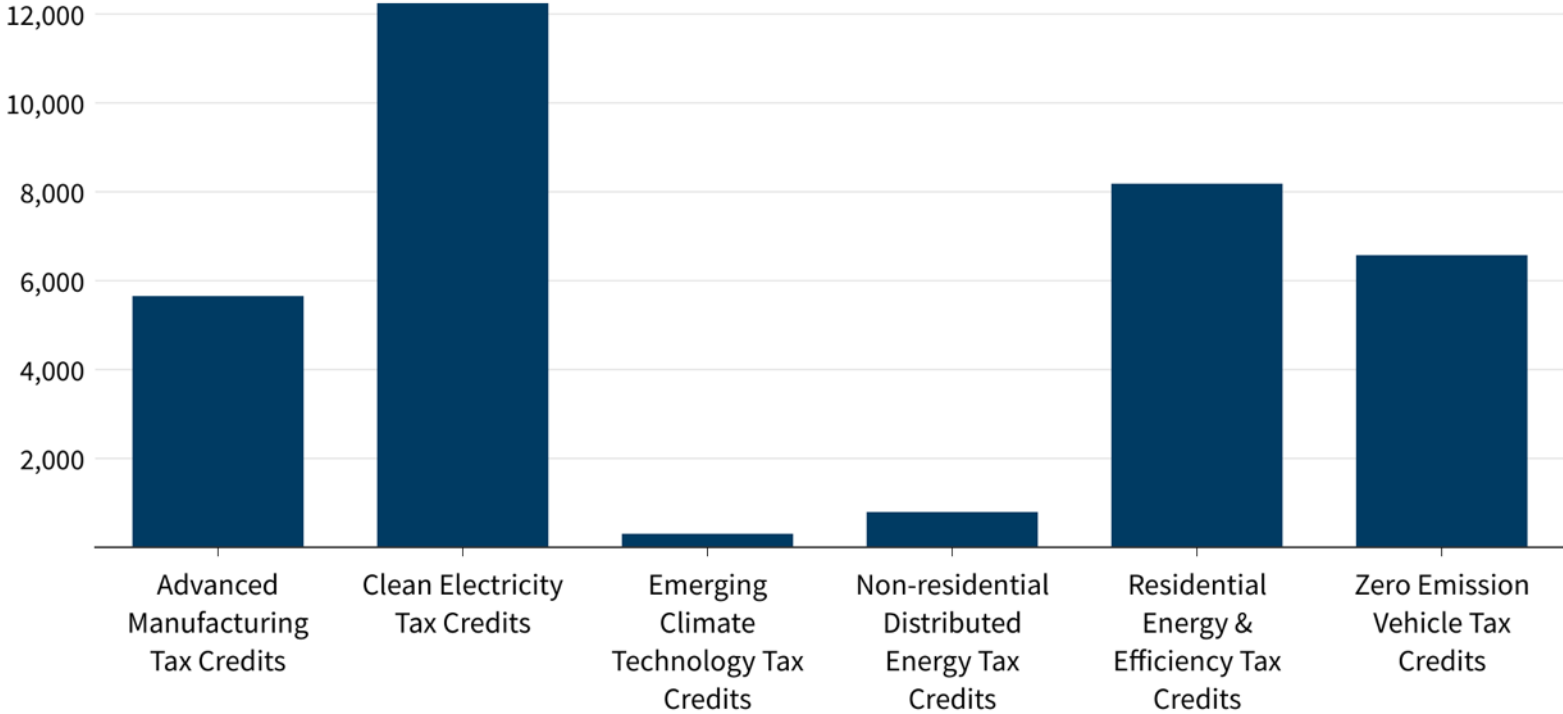
Chart: RMI Graphic • Source: Clean investment Monitor

# Investment in key sectors has been spurred by federal incentives.

IRA and BIL offer an unprecedented opportunity economic growth.

## Federal IRA Tax Credit Investments by Category

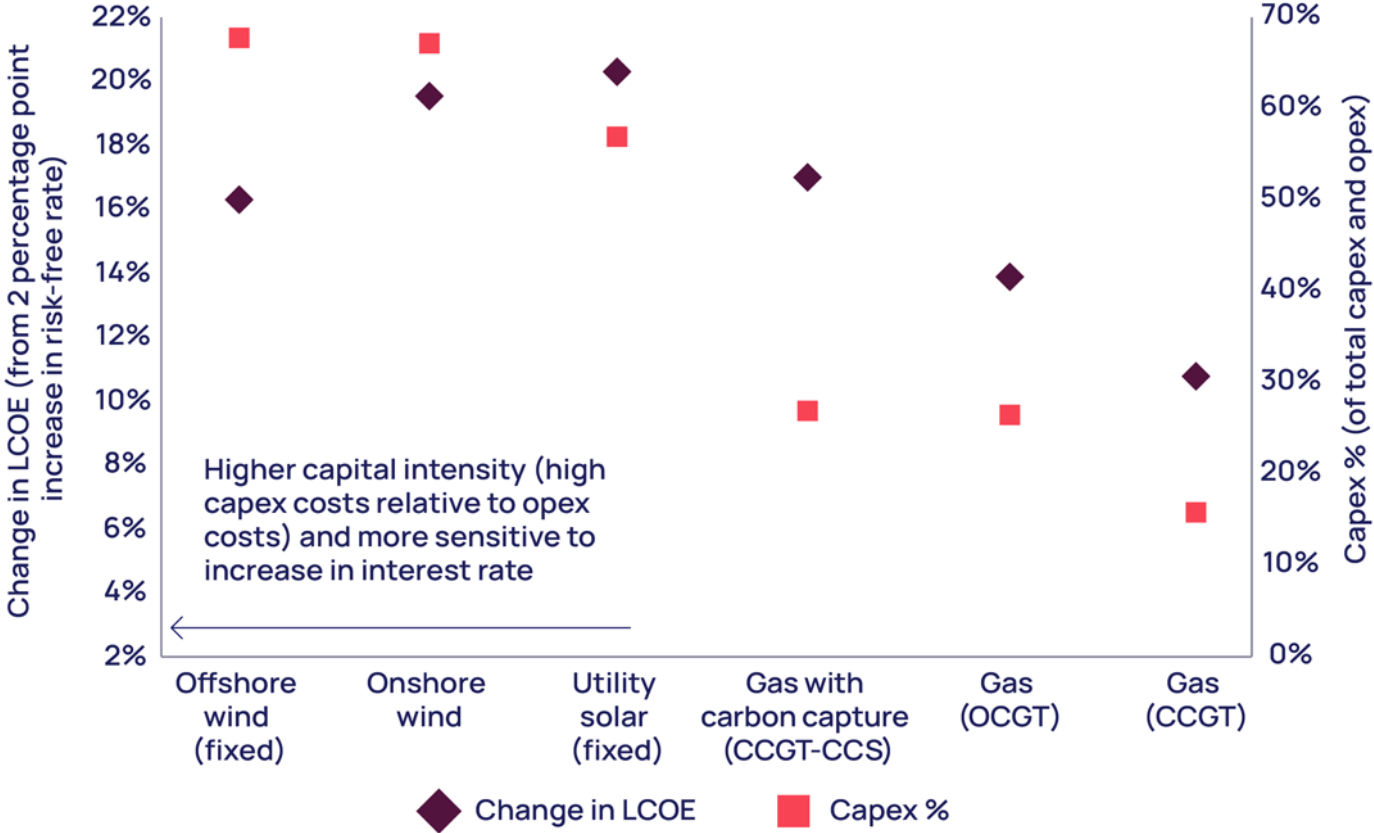
From passage to 2024 Q1, In Millions 2022 USD



Source: Clean Investment Monitor

# However, high interest rates disproportionately impact clean energy.

High capital intensity and low returns mean higher risk and more expensive capital.



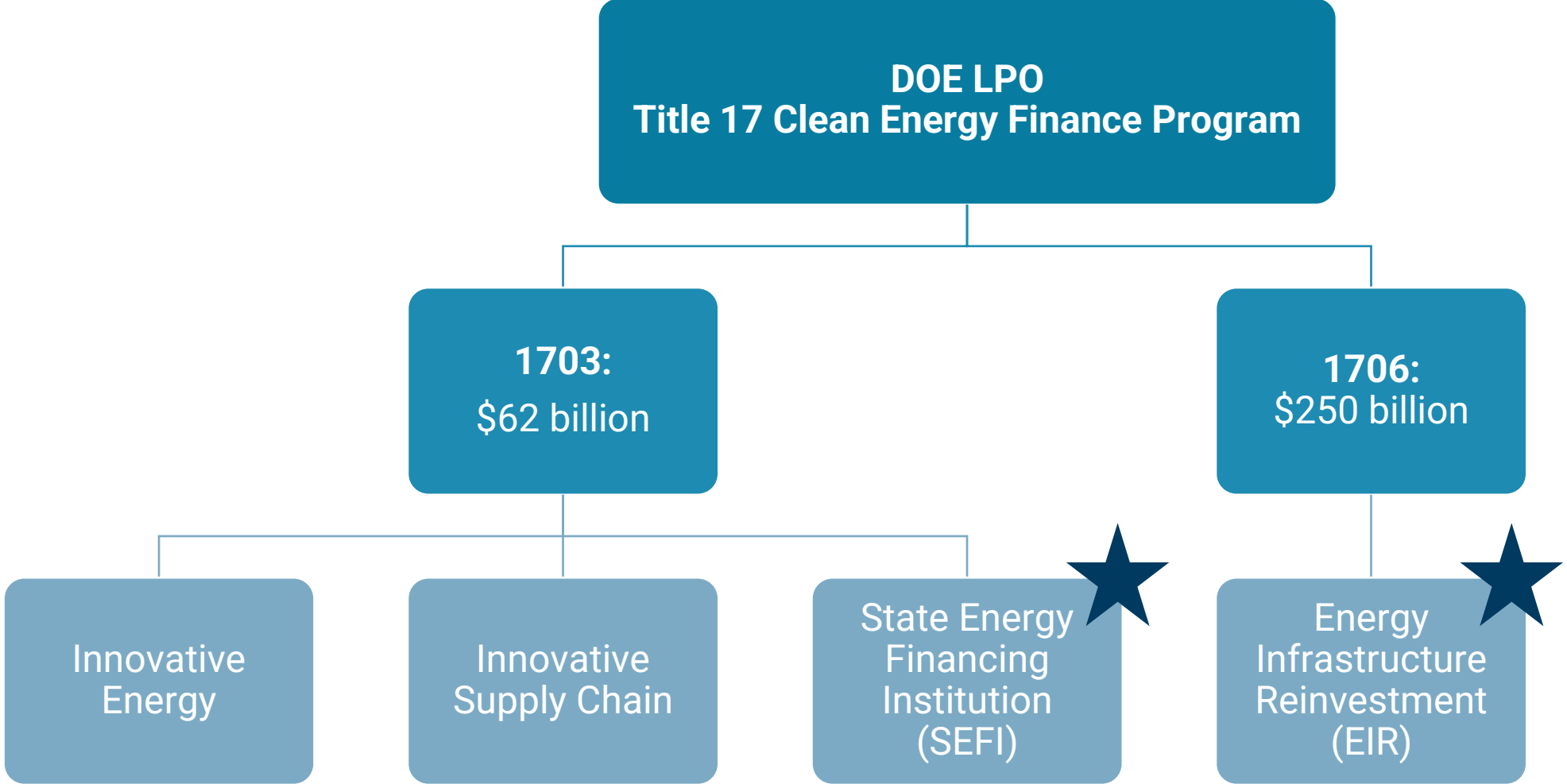
*“I think interest rates have calmed the [M&A battery storage] world significantly. Generally, it’s getting harder to do deals out there.”*

- John Switzer, SMT Energy | July '24

*“You are potentially looking at almost a 7% all-in interest rate assuming you are not hedging the underlying rate.”*

- Ralph Cho, Apterra Infrastructure Capital | February '24

# DOE's LPO Title 17 Program addresses this need.





# Why should states establish a SEFI Program?

Attract  
private  
capital



Pass on cost  
savings



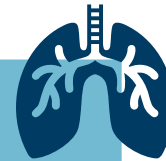
Drive job  
creation



Grow local  
tax base



Improved air  
quality



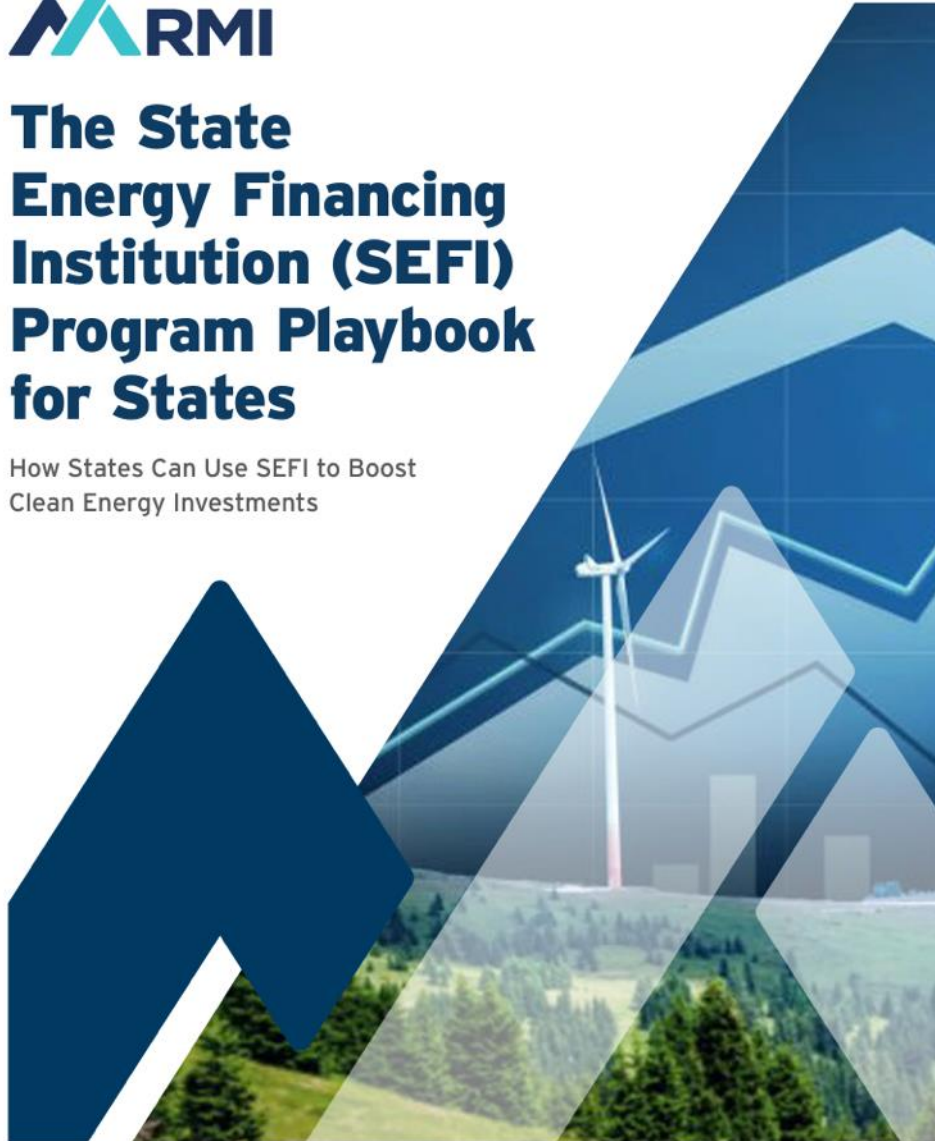
Raise  
additional  
financing





# The State Energy Financing Institution (SEFI) Program Playbook for States

How States Can Use SEFI to Boost  
Clean Energy Investments



Report / August 2024

## New RMI Resource

- Informed by interviews with state finance agencies, green banks, sector experts and LPO
- Includes:
  - Range of example projects
  - How to stack with tax credits
  - When NOT to use SEFI
  - Step-by-step guidance for building a project pipeline, establishing a SEFI, and deciding on meaningful support

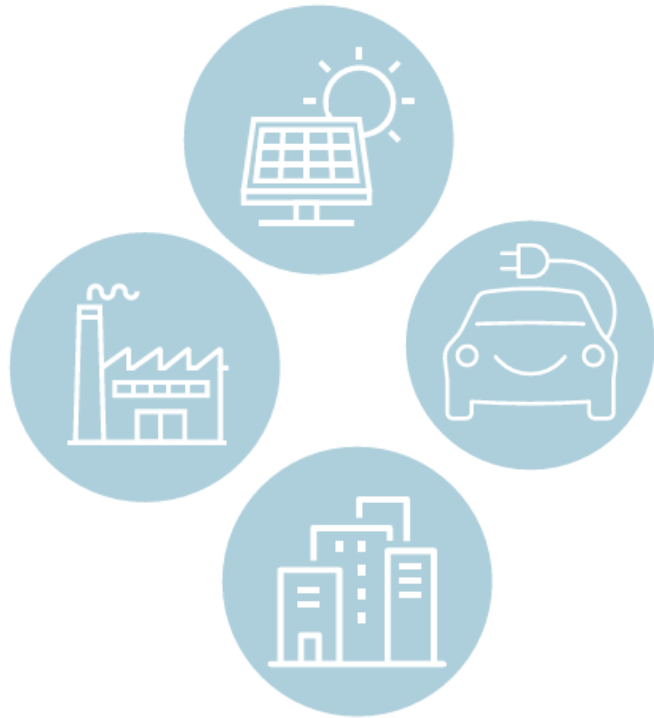


# Guidance for States

# 1

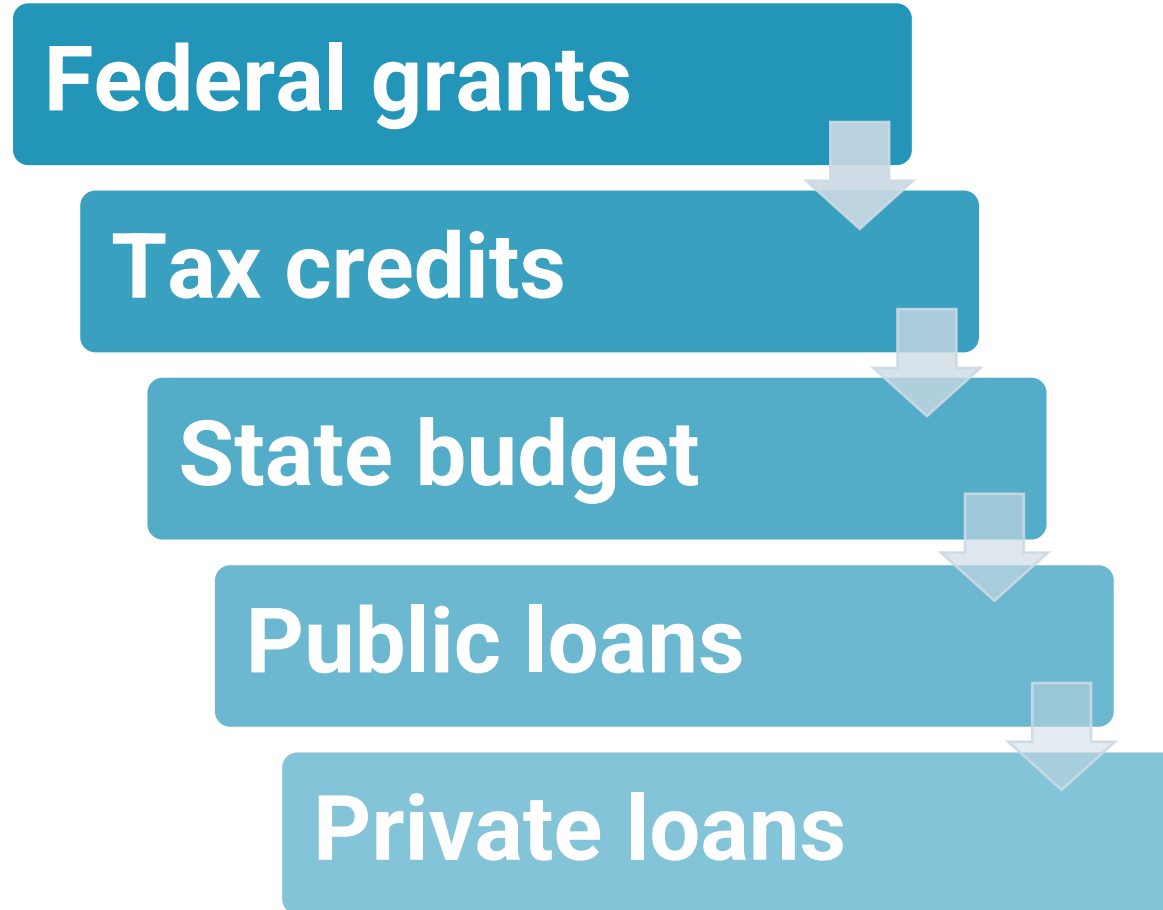
## Identify potential projects and decide whether to play an investment role for large projects or a borrower role for small projects.

- Issue an **RFI/RFP/RFQ**.
- Review EPA's [FLIGHT Database](#) for **top polluters**.
- Identify the largest private and public **fleets**.
- Review RMI's [Clean Growth Tool](#) to identify the highest feasibility **clean energy industries**.
- Discuss **campus-wide energy decarb** packages.
- Convene ESCOs to **aggregate weatherization retrofits**.



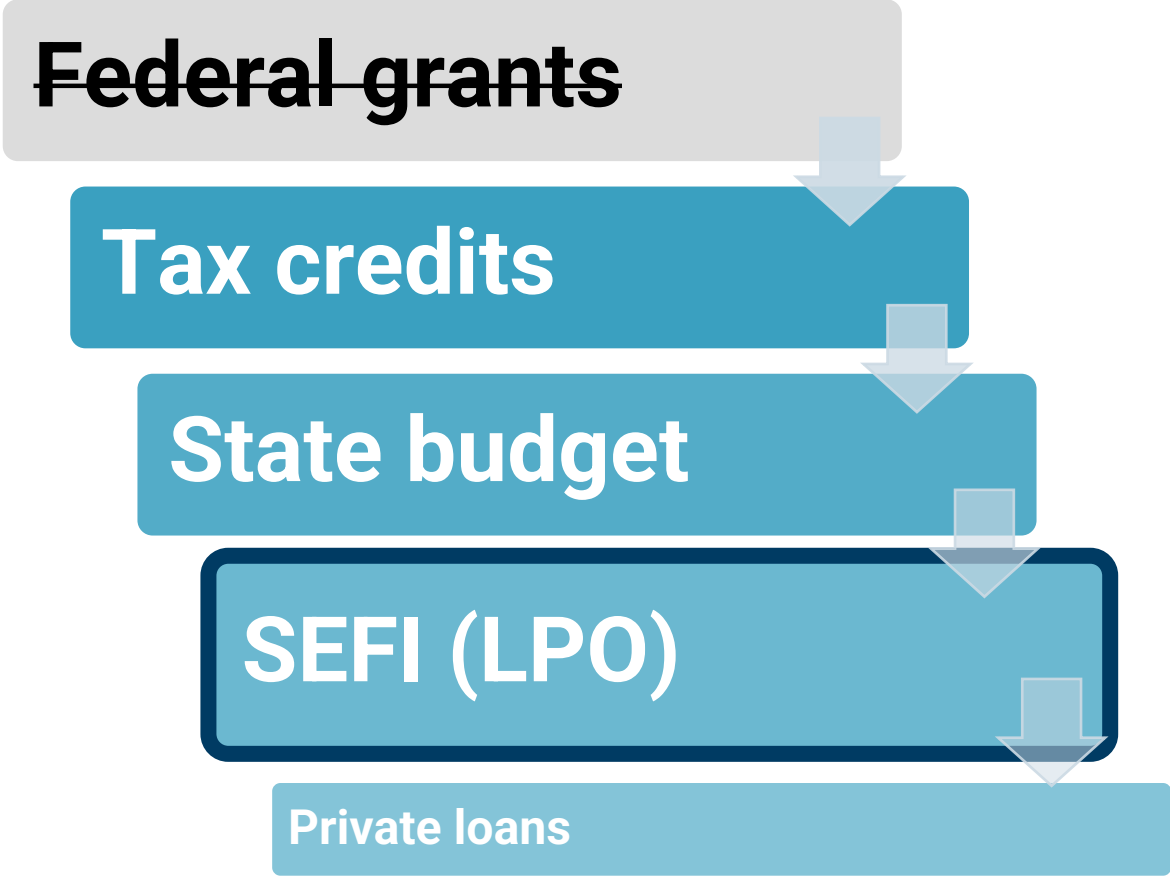
# How does SEFI financing fit into the larger landscape of opportunities?

Generic capital stack for large or aggregated decarbonization projects



# How does SEFI financing fit into the larger landscape of opportunities?

Capital stack for the ideal SEFI project



# When NOT to use SEFI financing

Projects under \$150 million without aggregation potential

Use GGRF or private lenders

Projects developed by entities with extremely good credit ratings

Use private lenders

Projects that are replacing or decarbonizing existing fossil infrastructure

Use LPO's EIR program

Projects that use an innovative technology

Use LPO's Innovative programs

# 2

## Identify potential state energy financing institutions.

- One eligible agency → one SEFI program
  - e.g., Connecticut
- Multiple eligible agencies → multiple SEFI programs
  - e.g., Massachusetts
- Multiple eligible agencies → one SEFI program
  - e.g., Michigan



# 3

## Provide meaningful financial support through an eligible SEFI to selected projects.

Percent of project costs deemed meaningful support

<5%



20%

### High-risk investments

Grants

Junior to DOE debt

Long duration

Below market terms



### Low-risk investments

Loans

Mezzanine or pari passu to DOE debt

Short duration

Market terms

## SEFI as Regional Syndicate

(For states without enough capital to contribute meaningful support on their own)



Thank you!

Molly Freed | [mfreed@rmi.org](mailto:mfreed@rmi.org)



# Building the Investment Pipeline: State Agencies, SEFIs, and the IRA

**Center for Public Enterprise**

August 2024

# Fixed capital investment is a process

## Identify Needs

- State energy goals
- Federal goals
- Necessary projects to meet the goals

## Gather Information and Plan

- RFI/RFQ process for private developers
- Project coordination between states, munis, tribes
- Publicly planned infrastructure

## Finance

- Create project portfolios with optimized financing sources
- Establish state financial incentives and lending authorities
- Conduit for federal programs
  - SEFI
  - GGRF
  - Elective Pay

## Construction

- Establish low-cost construction finance products
- Pre-vet and prepare subcontractors and partners, especially for portfolios of projects

## Operate

- Establish repayment period and division of cash flows
- Ownership transfers and terms, if any
- O&M

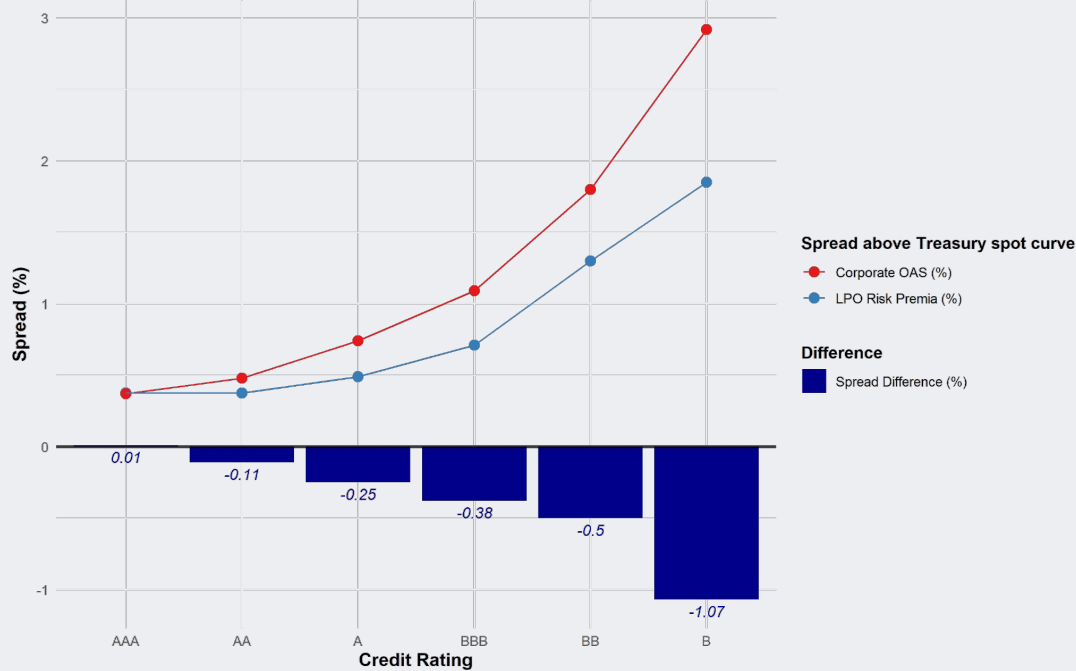
# SEFI is an opportunity to set up a pipeline

- Low-cost, high volume co-lending incentivizes the mobilization of developers
- Use the RFI/RFQ process to find out which developers and financing institutions can meet your needs
- SEFI is a big program—but do not limit yourself to it: think through how it can fit with other state programs and federal funding possibilities\* and send projects that way
- Use the opportunity to incentivize other state entities to work with you and share their capacity—create a “tiger team” of experts
- Think about how current investments supported by SEFI can create new streams of revenue for future investments

*\*subject to double-dipping restrictions*

# The SEFI Carveout can be cheap

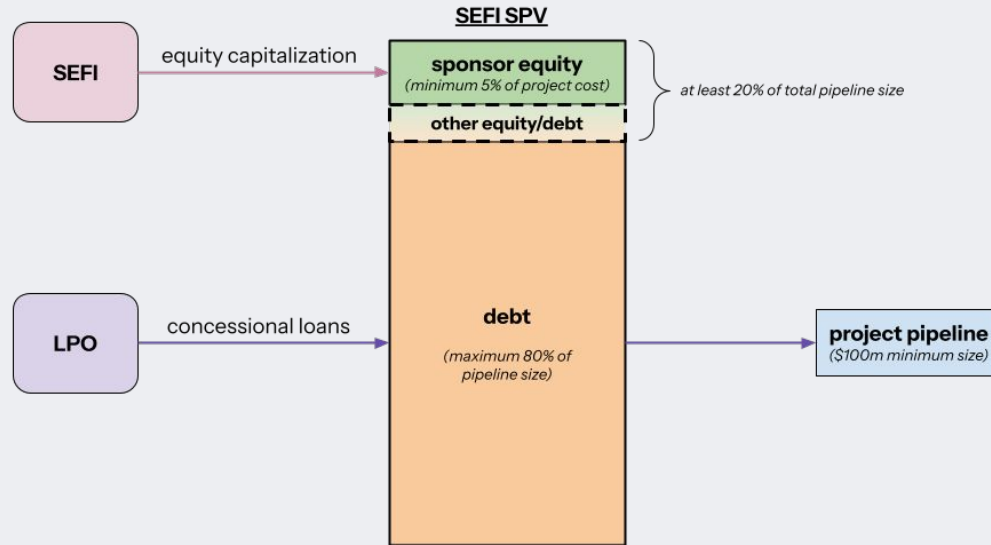
**LPO's Title 17 lending is extremely concessional for borrowers at lower credit ratings**  
measured as the spread between an FFB loan and FRED's BofA corporate bond option-adjusted spread (OAS) index



Center for Public Enterprise, 2024. FRED data sourced from May 28, 2024.

# SEFIs can set up SPVs to aggregate projects

SEFIs can create an SPV to channel LPO financing



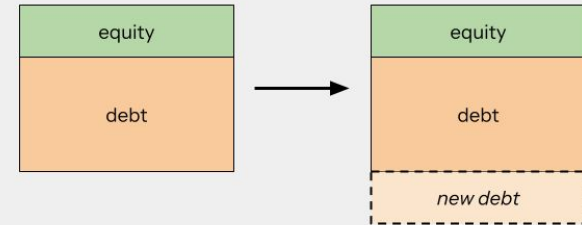


# Leverage, in the right context, is good!

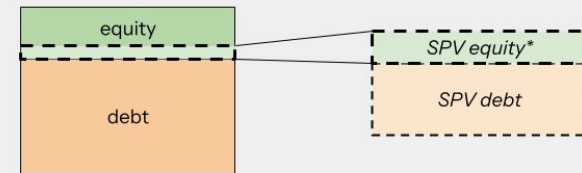
- If you're a AA-rated state instrumentality building BBB-rated energy projects, conserve your creditworthiness through an SPV
- SPV can shield parent entity from solvency risks arising from project delays, unexpected costs, and inadequate short-term cash flow

Creating an SPV offloads the risks of developing new projects

**without SPV:** financing new projects with new debt **increases leverage**



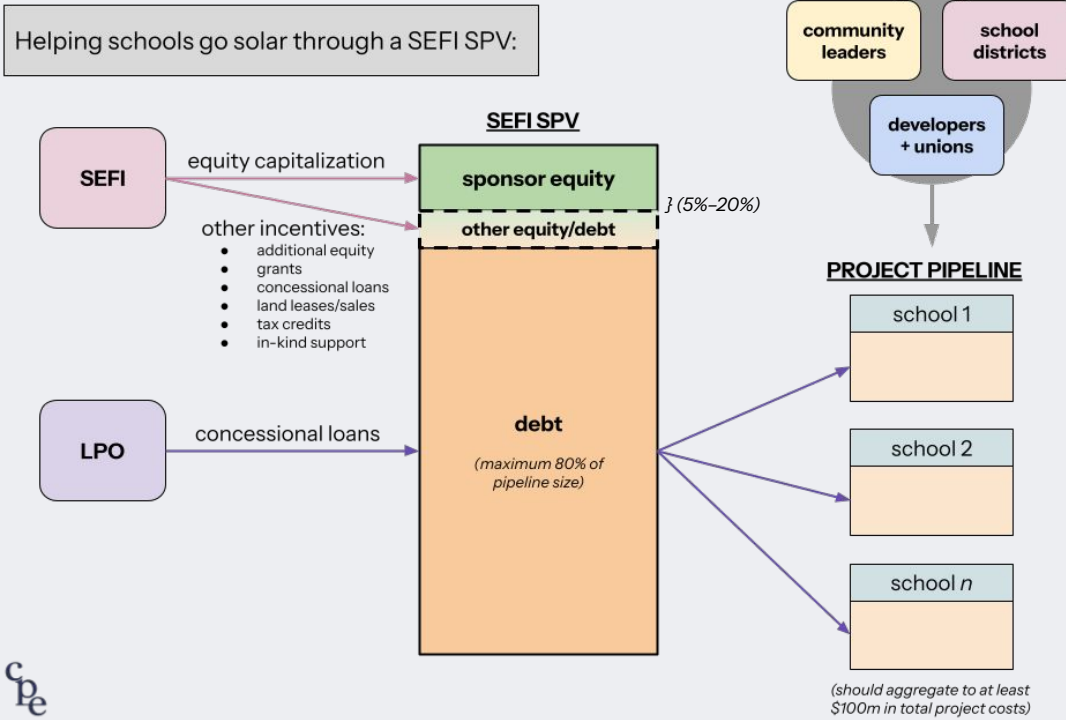
**with SPV:** using existing equity to seed SPV that finances new projects by taking on its own debt **does not increase leverage**



\*SPV equity can be debt-financed rather than equity-financed in what's called a "back-leveraged" structure.

# School Solarization Programs

Where the SEFI runs a pipeline



# “Model RFI” and best practices

# Best practices

- Proactively establish your project development pipeline.
- Do not wait for a formal designation of your entity or organization as a SEFI to prepare projects and apply for LPO financing.
- LPO money isn't free; they strongly suggest a minimum project pipeline size of \$100 million, and the LPO wants to see capacity for timely loan repayment.
- Meaningful support does not *just* mean SEFI-issued loans.
- The LPO is looking for partners, and will engage through the process. This is *not* a competitive grant program!
- Do not be afraid to be creative in how you structure your deals!!
- Recognize and be prepared for risks: financial, regulatory, supply chain, compliance.
- **LPO lending can help unlock new revenue streams and long-term value.**

# The Model RFI

- Solicit partners and projects for larger goal of project pipeline development
- Socialize financing tools (and criteria) among developers and communities
- Encourage respondents to be ambitious and creative in their submissions

The RFI is optional—there are other ways to get this same information! But it could help!

## MODEL RFI TEMPLATE

*Everything below is sample text for a model RFI.*

### Instructions

Note the issuer will be known as “**the agency**” in this generic RFI.

**The agency** is soliciting information from potential public- and private-sector partners on potential opportunities to support projects which advance state-level decarbonization goals with co-financing from **the agency** and leveraging the Department of Energy’s (DOE) Loan Programs Office (LPO). This Request for Information (RFI) is for information-gathering purposes only and should not be construed as a solicitation or obligation on the part of **the agency** to provide funding. We are especially interested in projects which advance end use building technologies, low-emission affordable housing, clean energy and distributed energy resources, and grid improvement and management technologies.

Respondents do not need to address every question and should focus on those where they have views or relevant expertise. Respondents may provide detailed responses and examples.

All comments received, including attachments and other supporting materials, are part of the public record and subject to public disclosure. Respondents should only submit information that they wish to make publicly available and should not enclose any information considered confidential or inappropriate for public disclosure.

Responses must be received by **DATE**, at **TIME**. Written responses must be submitted via one of the following options:

- Email: [**address**], as a PDF with the subject line [**subject line**]
- Regular United States mail to: [**address**]

### Background

The purpose of this RFI is to solicit initial feedback on the potential use of state funds from a State Energy Financing Institution (SEFI) to implement decarbonization projects that meet state targets and leverage federal funding from the DOE LPO. A state can have multiple SEFIs.

Specifically, **the agency** seeks input to inform how to best leverage the SEFI carveout in the LPO’s Title 17 Clean Energy Financing Program. Through this carveout, the LPO can augment state-administered decarbonization programs by providing additional, concessional financial support to projects that align federal energy priorities with those of **the state and the agency**. The LPO is the Department of Energy’s internal development agency able to issue loans and loan guarantees to qualified borrowers. Its scale and scope has been expanded by the Bipartisan Infrastructure Law and the Inflation Reduction Act. Under the Title 17 State Energy Financing Institution (SEFI) loan authority, the LPO is authorized to waive its “innovative technology requirements” on lending if a SEFI provides what the LPO considers “meaningful” financial support to the project.

**The agency** is seeking to solicit projects as part of the process of determining how the state might utilize the SEFI loan authority. **The agency** is examining a variety of options to provide meaningful support including but explicitly not limited to:

- Concessional loans
- Construction bridge loan financing
- Loan loss guarantees
- Equity financing
- Grants
- Tax credit incentives
- In-kind project development contributions

**The agency**, in examining all options for providing meaningful support, asks applicants to provide input into the kinds of project financing arrangements they might prefer.

The LPO can supplement **the agency's** meaningful support through concessional loans and loan guarantees. *However, the LPO application process involves significant costs and generally requires a \$100 million minimum transaction size per application, which can be composed of a portfolio of aggregated projects if applicable.* **The agency** seeks applications from private industry, public entities (including but not limited to school districts, municipalities, counties, public power organizations, special districts), and non-profit organizations to better understand the kinds of projects they may be interested in developing and would need state and federal support for.

### **Project Types**

**The agency** is seeking opportunities to partner with project developers to establish financing for projects which reduce carbon emissions and increase the resilience of our energy system. Per LPO's rules, SEFI-supported projects must fall into one of 13 technology categories, found on DOE's website. **The agency** is seeking to gauge private, public, and nonprofit interest in developing and operating emissions-reducing projects in a subset of these categories that align with statewide deployment targets.

Target sectors include but are not limited to:

- Renewable energy systems, such as utility- and rooftop-scale solar installations
- Energy storage technologies, such as battery storage paired with or independent from solar installations
- Efficient electrical generation
- Electricity transmission and distribution infrastructure, such as grid-enhancing technologies
- Efficient end-use energy technologies
- Industrial decarbonization technologies
- Zero-emissions transport and related infrastructure, such as electric vehicle charging stations
- Residential and commercial building decarbonization, including weatherization

Illustrative examples of projects **the agency** looks favorably upon include:

- Deep building retrofits, prioritizing energy efficiency upgrades, weatherization, and fuel switching to renewable and/or electric sources, for the existing building

stock—encompassing residential, commercial, industrial, medical, educational mixed-use, and other public and private community-serving facilities.

- Renewable energy installation, including utility-scale and distributed-scale resources, and potentially virtual power plants.
- Transmission and distribution grid upgrades that allow for better integration of variable resources, smart transformers, reconductoring, and grid-enhancing technologies onto the existing grid.
- Electrification transportation fleets and related infrastructure, with a focus on mass transit options.

#### Response

The RFI is intended for anyone planning to invest in clean energy and looking for attractive financing options, or with ideas for moving the state forward in deploying clean energy and expanding the clean energy economy at scale. This includes but is not limited to:

- Businesses of all sizes
- Economic development organizations
- Local units of government and other community leaders
- Community organizations
- Financial institutions, including community development financial institutions
- Energy infrastructure owners and developers
- Public institutions, including but not limited to universities and colleges

Please provide the following information in your response:

- The applying organization's name, and a brief description of the organization's business, mission, or governing mandate.
- Description of potential projects you are interested in developing and securing financing for.
- The project lead and project team's existing development experience.
- Project siting considerations, including whether the organization has secured rights to a proposed project development site(s).
- Public benefits of project development, including labor and emissions-reduction benefits.
- Current financing prospects, and capital stack to date, if possible.
- A description of how **the agency** can assist with improving project viability and preferred investment mechanisms, and any impact that **agency** and LPO financing could have on pricing decisions.
- Status of existing project pipeline and project progress.
- Domestic content outlook, including a description of your potential supply chain and subcontractors and your ability to engage in a domestic content attestation as required by federal law for projects securing federal support.
- Other technical assistance capabilities and/or needs.



# Thank you!

## Stay in touch:

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You will receive a recording of this event via email.

To see slides and other event resources, please visit RMI's [event registration page](#).



**ARIZONA**  
FINANCE AUTHORITY

# Arizona Energy Finance Request for Information (RFI)



# RFI Sponsors

**The Arizona Finance Authority (AFA)** was created in 2016 and it currently resides within the Office of Economic Opportunity. Its mission is to strengthen Arizona communities by offering innovative, responsible, and sustainable financing solutions for public and private borrowers.

**The Governor's Office of Resiliency** – uniting water, land use, transportation, and energy policy areas under one umbrella, with the underlying purpose of providing leadership that addresses the compounding threats to Arizona's water, natural resources, and impacts of the climate crisis.

# RFI Goal

Increase clean energy projects across Arizona and maximize available federal funding including:

- Greenhouse Gas Reduction Funds,
- DOE SEFI loans, and
- Tax Credits.



# RFI Areas of Interest

- High-quality, net zero or passive affordable housing;
- Clean transportation, including affordable public transportation solutions;
- Innovative approaches to rapidly and proactively expand a clean, resilient grid benefitting ratepayers;
- Cool/Smart rooftops / Heat-management/ Cooling centers related projects;
- Energy-efficiency and clean energy projects related to water-treatment and other water-energy infrastructure





# RFI Responses

- 66 Responses
  - > 23 Housing Focused Projects
  - > 23 Towns and Cities
  - > 3 Large SEFI Potential Projects
  - > 15 Early Stage Projects
  - > 2 around community outreach



# RFI Next Steps

- Reach out to respondents
  - > Connect with Greenbanks and non-profit organizations affiliated with GGRF
  - > Connect with consultants on SEFI and Tax Credits
  - > Keep applicants informed as more information comes out.



**ARIZONA**  
FINANCE AUTHORITY

# Questions?

AFA Director Gregg Ghelfi







# State Energy Financing Institution

Pennsylvania Energy  
Development Authority

Abbey Cadden  
Office of the Governor, Critical Investments

# Pennsylvania Energy Development Authority

- Pennsylvania Energy Development Authority and Emergency Powers Act (Act 280 of 1982)

- “a public corporation and governmental instrumentality exercising public powers of the Commonwealth” to finance energy and energy-related projects.

- Wind
- Solar
- low-impact hydropower
- Geothermal
- Biomass
- Landfill gas

- Fuel cells
- Integrated gasification combined cycle
- Waste coal
- Coal mine methane
- Demand management measures





## FULL CAMPUS PV SYSTEM

- 329-kilowatt photovoltaic system
- Produces 425,600 kWh of clean energy in Year 1
- Offsets approximately 80% of annual electric consumption

Produced by PA Solar Center



# Solar for Schools

- SEFI application in process
- State finances projects, 0% interest
- Revolving tax credits
- Incentives retained by school district
- Replicable





# Hydropower

- SEFI planning stage
- Revitalize existing infrastructure
- Joint public private investments
- Support state programming





# Before



# During



# After



## Abandoned Mine Lands

- 250,000 acres
- Public and private land
- Large scale clean energy opportunities
- Clean energy campus concept papers

# Elective Payment Service Bureau

- Service Bureau as central point of submission for COPA Agency projects
- Best practices to be distilled therefrom
  - Then used to assist Counties and Municipalities in their efforts
- PA in favor of Treasury allowing for transferability of Elective Payment among eligible organizations
  - Not to organizations with traditional tax burdens
  - COPA Service Bureau could aggregate, process, and submit on behalf of all PA government entities
    - Overcome the limits on local capacity

# Elective Payment

Elective payment (also called “direct pay”) allows tax-exempt entities — local governments, state governments, rural electric cooperatives, territories, Tribal nations, and nonprofits — to receive the full value of 12 IRA tax credits. Funds are available on a non-competitive basis and can be accessed by filing tax returns with the IRS.

Example IRA Projects:



Transition of Abandon Wells into Physical Batteries



Solar Panels on School Buildings



Installation of EV Charging Infrastructure



Novel Geothermal Energy Production

How to use Elective Payment:



## STEP 1

Identify a project that qualifies for Elective Payment

A school district plans to lower operating expenses through onsite solar power generation



## STEP 2

Complete the project and put it into service

The district installs a Solar Parking Canopy over its student parking lot



## STEP 3

Determine what tax year to use and when the tax return is due

The district determines installation occurred in 2024, return due on April 15, 2025



## STEP 4

Register with the IRS before the tax return is due and filed

Before filing the return, the district registers its project with the IRS



## STEP 5

File the tax return using the registration number by due date and receive \$\$

The district files a 990 Form (or equivalent) by April 15, 2025 and receives a check from Treasury



Thank You!

Abbey Cadden

Governor's Office of Critical Investments

[acadden@pa.gov](mailto:acadden@pa.gov)