CleanEnergy States Alliance

NYSERDA's State Energy Financing Fund and DOE's Loan Programs Office: Financing Clean Energy at the State Level

November 1, 2023

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Celebrating 20 Years of State Leadership



The Clean Energy States Alliance (CESA) is a national, nonprofit coalition of public agencies and organizations working together to advance clean energy.

CESA members—mostly state agencies—include many of the most innovative, successful, and influential public funders of clean energy initiatives in the country.

CleanEnergy States Alliance

































Powering forward. Together.











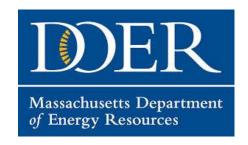
























IRA & BIL Implementation

Helping states navigate opportunities surrounding the Inflation Reduction Act and the Bipartisan Infrastructure Law.

Providing states with information, tailored guidance, and opportunities for collaboration to capitalize on billions of dollars in federal clean energy opportunities.



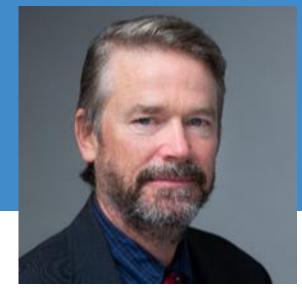


Webinar Speakers





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Upcoming Webinars

Energy Storage in Chattanooga, TN: Creating Community Resiliency and Peak Demand Reduction with EPB (11/8)

Building the Foundation for Energy Resilient Communities: Clean Energy Group's Resilient Power Funding Programs' 2022 Impact (11/14)

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Program Overview Title 17 Clean Energy Financing

Clean Energy States Alliance webinar

November 1, 2023

Elizabeth Bellis Wolfe, Senior Consultant / lead for SEFI transactions

Hans Riemer, Senior Consultant / lead for State & Local engagement





Updated 31 July 2023





Monthly Application Activity Report

September 2023



ACTIVE APPLICATIONS 1 WITH

216 PROPOSED PROJECT LOCATIONS ACROSS ALL REGIONS OF THE U.S.²

WEST	AK, CA, HI, NV, OR, WA (AS, GU, MP)	54
PLAINS	KS, ND, NE, OK, SD, TX	31
MID-ATLANTIC	DE, MD, NJ, PA, VA, WV <i>(DC)</i>	24
SOUTHEAST	FL, GA, NC, SC (PR, VI)	24
MIDWEST	IA, IL, IN, MI, MN, OH, WI	23
MOUNTAIN	AZ, CO, ID, MT, NM, UT, WY	22
SOUTH	AL, AR, KY, LA, MO, MS, TN	20
NORTHEAST	CT, MA, ME, NH,	18

Notes

All data updated through September 30, 2023. For more details and a list of technology areas of interest within each LPO tech sector, see: 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) 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.





LPO Financing Programs



Title 17 Clean Energy (Title 17)



Tribal Energy (TELGP)

Financing for:

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

Financing for:

Tribal energy development projects



Advanced Transportation (ATVM)

$\left(\begin{array}{c} \begin{array}{c} \\ \\ \end{array} \right) \end{array} \right)$

CO₂ Transportation Infrastructure (CIFIA)

Financing for:

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

Financing for:

Large-capacity, common carrier
 CO₂ transportation projects







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 financial support or credit enhancements from an entity within a state agency or financing authority.

SEFI projects are <u>not</u> required to employ innovative technology.





SEFI Opportunity – What is a SEFI?

"State Energy Financing Institution," or "SEFI," is an LPO designation for a state entity that provides financial support to energy projects.

Examples include: Energy Offices, Green Banks, Clean Energy Funds/Lending Centers, Housing Finance Agencies, Economic Development Authorities, Competitiveness Funds, and other state agencies. Note: A local government or independent non-profit (non-guasi government) is

generally not a SEFI.

State	SEFI(s) Approved as of 11/1/2023
AK	Alaska Industrial Development & Export Authority (AIDEA)
CA	California Infrastructure & Economics Development Bank; California Strategic Growth Council
CT	Connecticut Green Bank
MD	Maryland Clean Energy Center (MCEC); Maryland Department of Housing & Community Development
MA	MassDevelopment
MN	Minnesota Climate Innovation Finance Authority
NY	New York State Energy Research & Development Authority (NYSERDA)
PA	Pennsylvania Energy Development Authority (PEDA)

For a list of SEFIs approved to date, see State Energy Financing Institution (SEFI) Toolkit | Department of Energy* at https://energy.gov/lpo/state-energy-financing-sefi-tool-kit

What state agencies or quasi-public entities fund energy projects in your state?





SEFI Opportunity – SEFI Project Category

The Inflation Reduction Act authorized LPO to finance projects that receive "meaningful financial support or credit enhancements" from SEFIs.

> E.g., a grant, equity in kind, a loan-loss reserve, subordinate debt, or a loan that is pari passu with LPO. LPO evaluates meaningfulness on a case-by-case basis.

With this authority, LPO can finance certain projects that align with state energy priorities, including some projects that might not be eligible for other LPO financing.





SEFI Opportunity – Project Requirements

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.





SEFI Opportunity – Eligible Technologies









Efficient electrical generation, transmission. and distribution



APPLIES TO:

- **Innovative Energy Projects**
- **Innovative Supply Chain Projects**
- **State Energy Financing Institution (SEFI) Projects**



Hydrogen fuel cell technology





9



Efficient enduse energy technologies

Production facilities for the manufacture of fuel-efficient vehicles or vehicle parts



Carbon capture

technology

and sequestration

Pollution control equipment

energy



Oil refineries



Energy storage technologies



Industrial decarbonization technologies



NEW:

Supply of critical minerals





Updated 31 July 2023

SEFI Opportunity – Pathways to SEFI Projects

For project developers: Potential applicants with a nexus to a state agency should talk to state officials about providing SEFI support so the project can apply to LPO through the SEFI project category.

For state offices: State officials who want to leverage LPO financing for energy projects should talk to LPO about SEFI status and consider how to RFP the private sector.





SEFI Opportunity – How SEFIs Can Support Projects

Approach 1: SEFI provides qualifying awards to LPO applicants

Option A: SEFI provides backing to one or more individual projects, enabling the projects to apply to LPO.

Option B: SEFI establishes a funding program:

- 1. SEFI designs funding awards program to support projects applying for LPO loans.
- 2. Projects apply to both SEFI and LPO.
- 3. SEFI makes award calibrated to provide "meaningful support" in the capital stack.

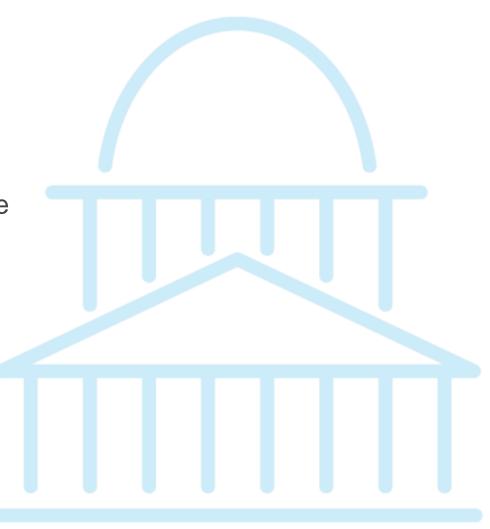
Note: SEFI may make contingent awards with final awards based on projects receiving commitment from LPO.





SEFI Opportunity – Benefits of a Funding Awards Program

- ✓ Allows State to RFP the private sector to identify project concepts addressing State priorities.
- ✓ Attracts national projects to the State.
 - States can set requirements for local investment (e.g., 20x the state award dollars must be spent in the state) for projects to receive SEFI support.
- ✓ LPO often is familiar with projects looking for State/SEFI partners.
- ✓ LPO can refer applicants to SEFIs that have a funding opportunity.
- ✓ LPO can publish a SEFI funding program on the LPO website.







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.

Approach 1: SEFI Provides Qualifying Awards to LPO Applicants	Approach 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.
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, like any other applicant, to have 20% of the project cost as equity and may require (non-LPO) funding for more of the project costs.
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.





SEFI Opportunity – Additional Project Considerations

- Federal Support Restriction: A project cannot use other Federally appropriated funds to repay a loan from LPO. Tax credits that the project is otherwise eligible for are allowed.
- Terms: LPO will only lend to 80% of project cost, at most, and must be senior (or pari passu). Projects must have equity and usually other subordinated financing.
- Other Requirements: NEPA, Davis Bacon Act, Build America Buy America for some borrowers, community benefits, etc.
- \$100M+: Due to application-related costs such as engineering reports and drafting a term sheet, \$100M is often considered the point where an LPO loan starts to pencil out.





Title 17 Lending Overview

Loan Guarantee Features

- No minimum or maximum loan size (usually \$100M+).
- Total loan amount up to 80% of eligible project costs.
- Loan guarantees (up to 100%) of U.S. Treasury's Federal Finance 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 U.S. Treasury's Federal Financing Bank (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 (not for all projects).
- Treasury rate is fixed according to loan tenor (maximum 30 years).

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 postclosing).

** No Application Fees





SEFI Potential Projects (1 of 3)

Virtual Power Plants

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

- 1. Energy office provides SEFI award to national VPP company as LPO applicant to implement in State.
- 2. Green bank provides SEFI support to program manager as applicant for low-cost loans for consumers.
- 3. On-bill financing by utility for solar/storage; Utility provides lower rates to consumer by using LPO. SEFI support provides additional incentive for customers.

Affordable Housing

- Affordable housing owner retrofits buildings to create VPPs, achieve net zero.
- Housing agency makes SEFI awards to affordable housing providers who combine as applicant.
- Note: Identifying units and project designs that do not rely upon other federal funds.

District energy systems, higher ed

Education campus building decarbonization.

District energy systems with generation potentially eligible for 1706/EIR (do not have to be campus based).

System operator, project delivery company or school applies to LPO.





SEFI Potential Projects (2 of 3)

Fleet electrification + VPP

- State/muni partners stop buying ICE vehicles, contract with ZEV fleet company to provide vehicles as a service, charging, storage, VPP/grid services. Fleet company applies to LPO for debt to implement project.
- For private sector, SEFI borrows from LPO to provide low-cost financing to companies for fleet upgrades.

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.

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





SEFI Potential Projects (3 of 3)

Community energy projects

- Tax credits finance majority of cost for renewable portfolio with storage/ VPP serving low-income communities.
- Energy office provides SEFI grant.
- Project developer or municipality applies to LPO for loan to implement project.

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

Government building decarbonization

- Portfolio of government buildings aggregated, energy projects procured.
- Project company applies to LPO.

Commercial building decarbonization

- Energy administration makes SEFI awards to commercial portfolio for project, allowing project company to borrow from LPO.
- SEFI borrows from LPO to make smaller awards from LPO backed capital pool.

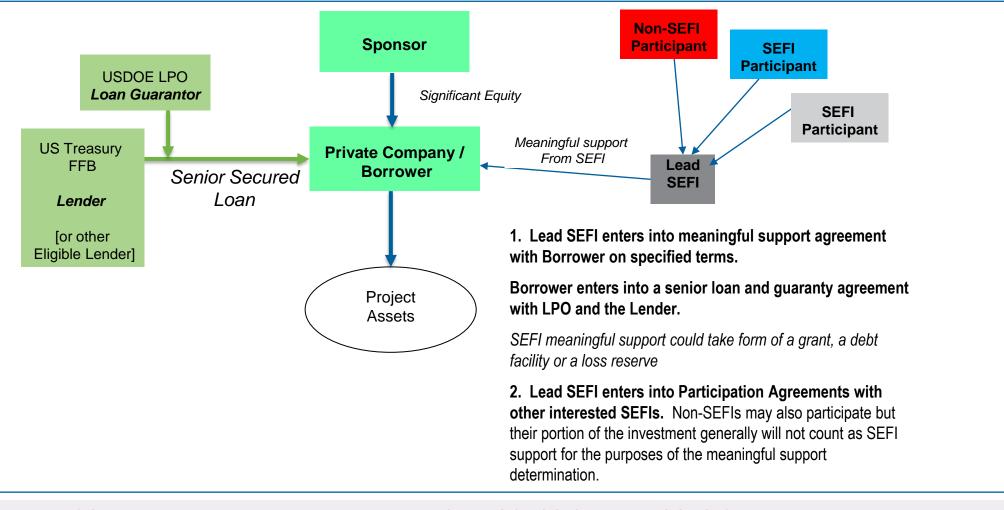




Project Receiving Support from Multiple SEFIs via a Lead SEFI







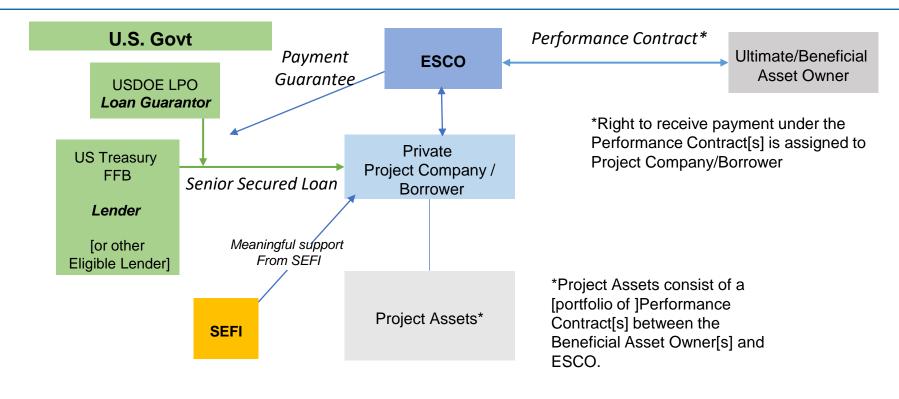




ESCO Performance Contract SEFI-Supported Project Structure







Let's Talk About Your Project

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

Questions?

are here to provide feedback for your concepts and designs!

Elizabeth.Wolfe@hq.doe.gov; Hans.Riemer@hq.doe.gov;

SEFI@hq.doe.gov





Download the full Title 17 Guidance document at: Energy.gov/LPO/Clean-Energy

Learn more about LPO and all of its financing programs at: Energy.gov/LPO





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Community Benefits Plans

A New Title 17 Project Application Requirement

- ✓ A Community Benefits Plan (CBP) is now considered in the evaluation of Title 17 project applications.
 - LPO can discuss and provide feedback during pre-application consultations.
 - CBPs will be preliminarily evaluated during the Part II evaluation.
 - Applications with inadequate CBPs may not be invited to proceed to due diligence.
- ✓ LPO considers the quality of a CBP among the factors that indicate the prospect of loan repayment.
- ✓ LPO is leveraging commitments made for state and city incentives, and IRA Incentives.
- **✓** Borrowers will report on their fulfillment of goals and activities included in the CBP.

CBP Four Priorities

- 1) Justice 40
- 2) Diversity, Equity, Inclusion, and Accessibility
- 3) Quality Jobs
- 4) Community & Labor Engagement





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NYSERDA PON 5456 State Energy Financing Fund

Dr. Luis Aguirre-Torres, Director, FP&A and Financing SolutionsGreg Hale, Senior Advisor for Energy Efficiency MarketsJohn Joshi, Director, Financing Solutions

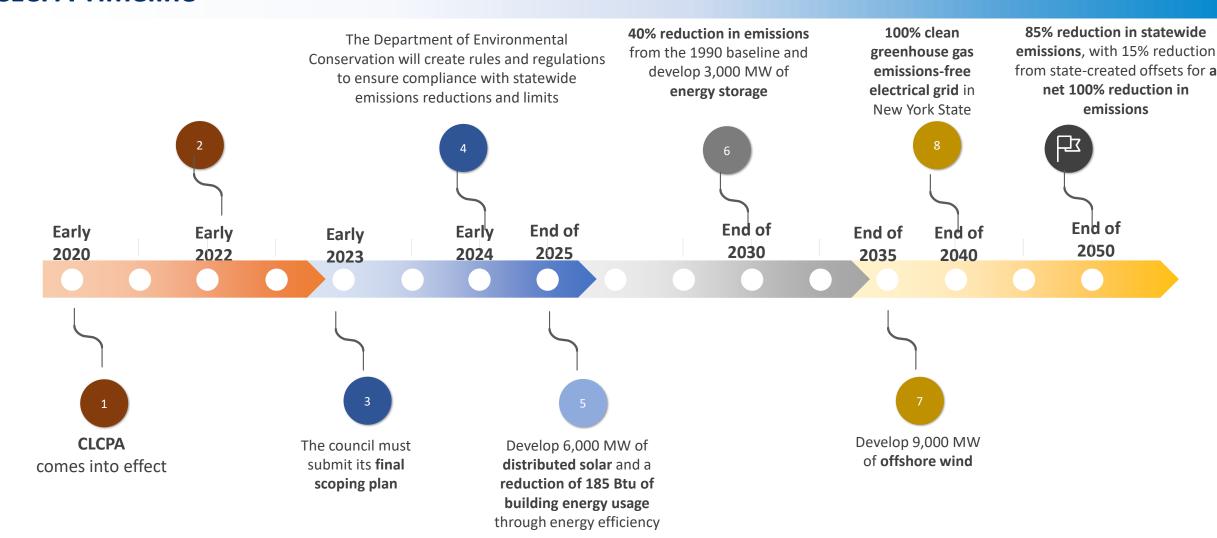
NYSERDA SEFI Fund

Solutions to leverage public investment for maximum impact



NYS and NYC have aggressive climate goals

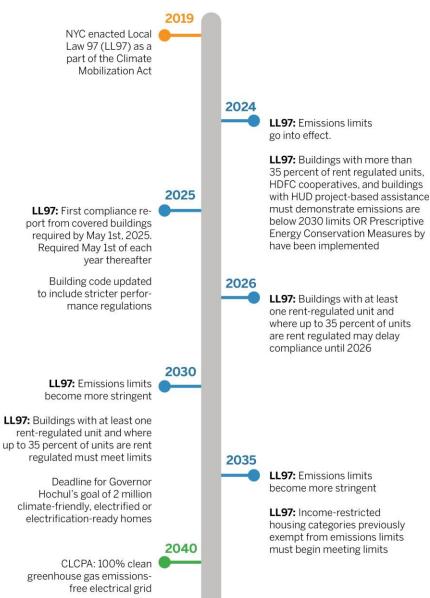
CLCPA Timeline



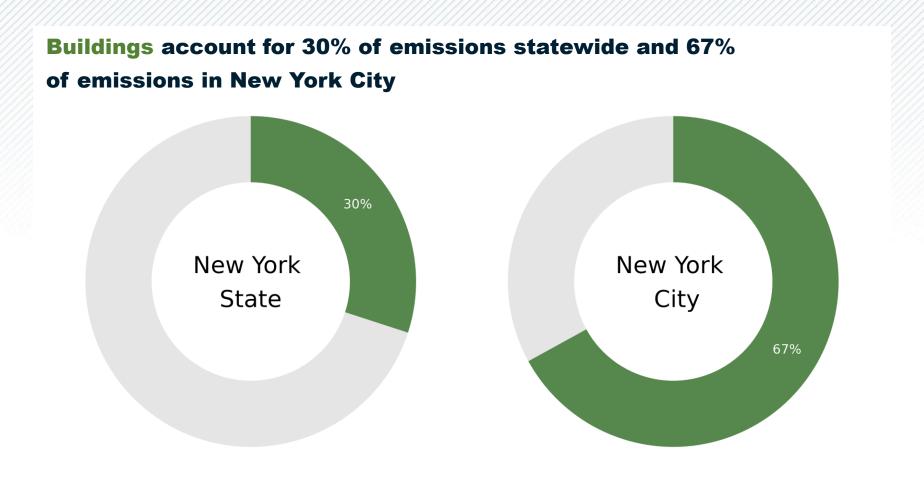
New York State and New York City have aggressive climate goals

Local Law 97 (LL97) Timeline

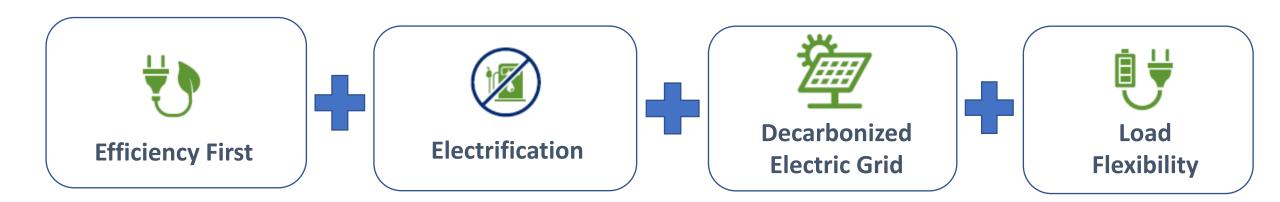
FEDERAL RESERVE BANK of NEW YORK



Buildings are a key source of emissions



Primary Path for Building Decarbonization



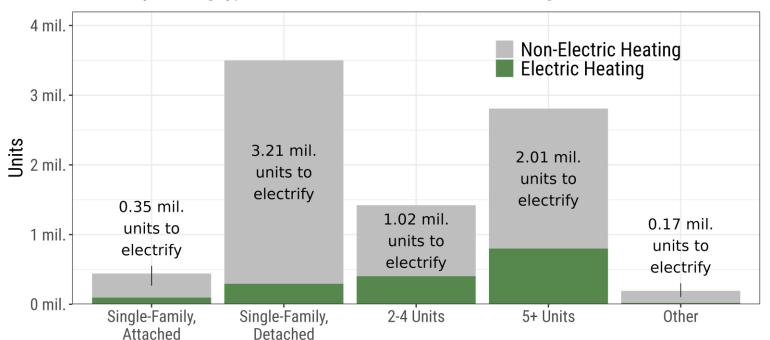
Limits on use of renewable fuels

Hard to electrify buildings and processes can achieve carbon neutrality using low-carbon fuels like renewable natural gas or hydrogen, but those fuels are projected to be in very limited supply and utilized primarily for harder sectors of the economy to electrify

Millions of housing units will need to electrify to meet climate goals

To reach full electrification, millions of units across all housing types will need to switch to electric heating

Number of units by housing type and electric versus non-electric heating in New York State



Sources: 2020 ACS, 2020 RECS

NEW YORK REGULATORY DRIVERS

NYS - CLCPA

Enacted Legislation

Emissions-free new construction (2026/2029)

In Scoping Plan, legislation pending

- Phase out of fossil heating appliances (2030/2035)
- Building performance standards (2030)
- Benchmarking / Building Labeling (ASAP)
- Cap and Invest

Governor's State of the State Initiative

Two Million Climate Friendly Homes

NYC

(enacted)

- Local Law 97 building emissions caps (2024 – stepping down 2030, 2035, 2040...)
- Emissions-free new construction (2024/2027)

Financial Institution Regulations

- DFS Proposed Guidance re: Climate Risks
- SEC proposed climate disclosure regulations

NYS Department of Financial Services Proposed Guidance

Proposed Guidance for NYS Regulated Banking and Mortgage Organizations Relating to Management of Material Financial Risks from Climate Change issued December 2022

 Climate change poses a wide range of potential and possibly significant risks to the safety and soundness of the financial system.

Physical Risks

- Chronic shifts in weather patterns, e.g. sea level rise
- Increased frequency and severity of acute events, e.g. hurricanes, floods, wildfires

Transition Risks

- Arise from economic and behavioral shifts driven by policy and regulations, adoption of new technologies, consumer / investor preferences, changing liability risks
- Can cause re-valuation of assets that turn out to be worth less than originally modeled
- Potential financial, credit, market consequences reflected on regulated entities' balance sheets, including loans and investments

Acronyms

- **DOE LPO:** Department of Energy's Loan Programs Office
- NYSERDA: New York State Energy Research and Development Authority
- SEFI: State Energy Financing Institution
- SEFF: State Energy Financing Fund
- CLCPA: Climate Leadership and Community Protection Act
- DAC: [New York State] Disadvantaged Community [Criteria]
- FS: Financing Solutions
- FSD: Financing Solutions Director

LPO SEFI Program Summary

A new authority from the Bipartisan Infrastructure Law **exempts projects** receiving financial support or credit enhancements from an eligible **state energy financing institution** (SEFI) from the innovation requirements of LPO's title 1703 loan guarantee program.

By providing loan guarantees to SEFI-supported projects like those that would be supported under NYSERDA's new program, the LPO can now also offer project financing to a wider range of borrowers under Title 1703, including those serving or operating in small, rural, and underserved communities.

Projects that reduce greenhouse gas emissions without using an innovative technology may be eligible for loans under Title 17, so long as the projects receive qualifying funding from a SEFI (e.g., a state green bank or other qualifying state entities) and fall into one of the categories of eligible projects under Title 17.



SEFI Eligible Technologies under PON 5456

LPO SEFI Technologies:

- Renewable energy systems
- Advanced fossil energy technology
- Hydrogen fuel cell technology
- Advanced nuclear energy
- Carbon capture and sequestration technologies
- Efficient electrical generation, transmission, and distribution
- Efficient end-use energy technologies
- Production facilities for the manufacture of fuelefficient vehicles or parts of those vehicles
- Pollution control equipment
- Oil refineries
- Energy storage technologies
- Industrial decarbonization technologies
- Supply of critical minerals

PON 5456 Eligible Technologies :

- Renewable energy systems
- Grid Benefits for the built environment
- Efficient end-use energy technologies
- District Thermal Energy projects
- Electrification of the Transportation Sector to the extent it intersects with the built environment
- Energy Storage
- o Grid impact: including optimization through virtual power plants or similar technology to support decarbonization of the built environment
- Other Decarbonization Projects impacting built environment and infrastructure, with an emphasis on projects benefitting DACs



PON 5456 Summary

- Initial capitalization for PON5456 is \$20mm for entities offering affordable financing for decarbonization throughout New York State, including projects providing benefits to disadvantaged communities.
- Applications Accepted on a rolling basis Starting: 9/11/2023 and will remain open until all funds are exhausted or at NYSERDA's discretion.
- PON 5456 will support multi-state portfolios for SEFI support, with a requirement for minimum portfolio impact for New York State.
- Awards are contingent upon the applicant's approval for the federal LPO Title 17 Clean Energy Financing Program's Section 1703 financing.
- Funding will be awarded on a rolling basis and individual awards may not exceed the lesser of \$5 million or 3
 percent of an eligible applicant's proposed project portfolio amount, subject to structuring terms and applicable
 federal, state, and local regulations.
- Applicants will be required to report on the number and dollar amount of investments into New York's DACs funded through their respective Title 1703 facilities.

PON 5456 Application Process

Key requirement: Alignment with state policies and initiatives (e.g., CLCPA and NYS DAC Criteria)

Getting Started

- **1.Review program documentation** Review the <u>Program Opportunity Notice (PON)</u> for a detailed breakdown of participation requirements and eligibility.
- **2.Develop your proposal** Once eligibility is confirmed, create a proposal that outlines the products planned to offer including proposed geography and how NYSERDA's SEFI financing support will improve accelerate or enhance service or product offering.
- **3.Gather your application materials** Along with proposal documents, application requires company information such as regulatory and insuring agency details, if applicable.
- **4.Submit your application** Once information is complete, submit online application. Partially completed applications cannot be saved on NYSERDA's portal, so make sure to have all relevant documents ready before applying.



PON 5456 Key Eligibility Criteria

Qualifying SEFI support may include (but not limited to):

- Subordinate portion of capital stack.
- Loan loss reserve with respect to junior portion of capital stack.
- Co-lending with LPO (Pari-passu or subordinate debt).
- Financial backstop for specific project elements that may be subject to regulatory risk.

Eligible Applicant Criteria

- Eligible Applicants must be in the **process of applying to LPO for a loan guarantee** supporting decarbonization work in NYS (or with a minimum portfolio impact for NYS) within the Target Sectors.
- Applicants should qualify under the LPO Title 1703 Program including financing entities and developers sponsoring decarbonization projects, as well as commercial firms and nonprofit organizations.

PON 5456 Eligible Applicant Firms Criteria

- Applicants are expected to have successfully participated in the LPO Pre-Application process for guidance to apply for support under the LPO 1703 Program.
- Following that review and after successfully applying to LPO's Level 1 process, the Applicant is encouraged to apply to this PON, presenting proof of having submitted an LPO Level 1 application or of receiving an approval to submit a Level 2 application.
- Additionally, Applicants that have already previously completed the Level 1 process and have submitted or will submit a Level 2 application can apply to this PON.
- The Applicant's final review and final approval will be subject to NYSERDA Scoring Committee review.

*

PON 5456 SEFI New York Portfolio Guidance

Applicants that have projects outside NYS are eligible, provided that the Eligible Projects in NYS constitute at least **twenty percent (20%)** of the Applicant's financing facility or meet **at least a twenty times (20x)** minimum capital leverage ratio of NYSERDA's SEFI investment into the Applicant's facility

PON 5456 Resources

NYSERDA PON 5456:

• https://www.nyserda.ny.gov/All-Programs/State-Energy-Financing-Fund

DOE LPO:

- https://www.energy.gov/lpo/state-energy-financing-institutions-sefi-supported-projects
- https://www.energy.gov/lpo/articles/lpo-outlines-state-energy-financing-institutionsefi-opportunities-and-how-state

PON 5456 Contacts

Designated contacts:

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<u>Dr. Luis Aguirre-Torres</u> (518) 862-1090, Ext. 3410

<u>SEFIfund@nyserda.ny.gov</u> for more information, to discuss your proposals or to answer any questions.