

Clean Energy Finance Strategies for State Governments

August 2024

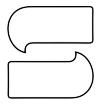
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Introduction

New federal legislation, especially the Inflation Reduction Act (IRA) and the Infrastructure Investment and Jobs Act (IIJA), offers transformative new financing tools that state governments can use to maximize clean energy investment, lower energy costs, create good jobs, attract growing businesses, create community wealth, and advance equitable outcomes. A wide variety of projects can benefit from these financing opportunities, including both grid-scale and distributed renewable energy, electric vehicles (EVs) and charging infrastructure, home efficiency projects, industrial decarbonization, and new advanced energy manufacturing facilities – all of which offer major economic, public health, and quality of life benefits.

State governments are critical to ensuring these policies, programs, and incentives are put to use, and that tangible benefits reach people on the ground, and reach communities equitably. The pages that follow guide state leaders in understanding the key new financing tools at their disposal, with a focus on [elective pay](#) (or “direct pay”) clean energy tax credits, concessional finance and technical assistance through the [Greenhouse Gas Reduction Fund](#) (GGRF), and concessional financing from the Department of Energy’s Loan Program Office (LPO) for access by [State Energy Financing Institutions](#) (SEFIs). These new federal financing tools are impactful because they:

- Leverage major new sources of funding
- Drive down overall clean energy and infrastructure project costs with low interest rate and flexible financing structures
- Unlock equitable economic opportunities that reduce emissions and provide community benefits



This memo will introduce each of these financing tools in turn and then provide recommendations for how state government leaders can maximize their use, driving clean energy and economic transformation in their state.

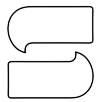


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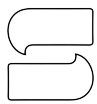
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I. Overview of New Clean Energy Finance Tools & Sources

Tool 1: Tax Credits & Elective Pay slash the cost of clean energy projects for tax-exempt entities.

The IRA expanded the tax credits available for many clean energy projects, including for solar, battery storage, wind, geothermal, electric vehicles (EVs) and charging infrastructure. These tax credits typically allow for the recovery of 30% of a project’s upfront costs, dramatically improving the financial feasibility and return on investment for the project owner. Bonus adders that apply to Section 48 and Section 45 clean energy tax credits can further increase the value. Bonus credits are permitted to be stacked, so that a theoretical project could recover up to 70% of project costs. These bonus tax credits include:

- Energy Community Tax Credit Bonus for an additional tax credit worth 10% of project costs when those located within a designated energy community, areas where fossil fuel facilities are or were located.
- Domestic Content Tax Credit Bonus offers a 10% bonus for utilizing required quantities of domestically sourced steel, iron, or manufactured products.
- Low-Income Communities Bonus Credit for an additional 10% of the project cost when located in a low-income community or on Tribal land. The bonus credit can increase to 20% for projects that are part of either a qualified low-income residential building project or a qualified low-income economic benefit project. In both cases, the clean energy project must benefit the low-income residents. This bonus credit is subject to an application process for a limited number of credits.

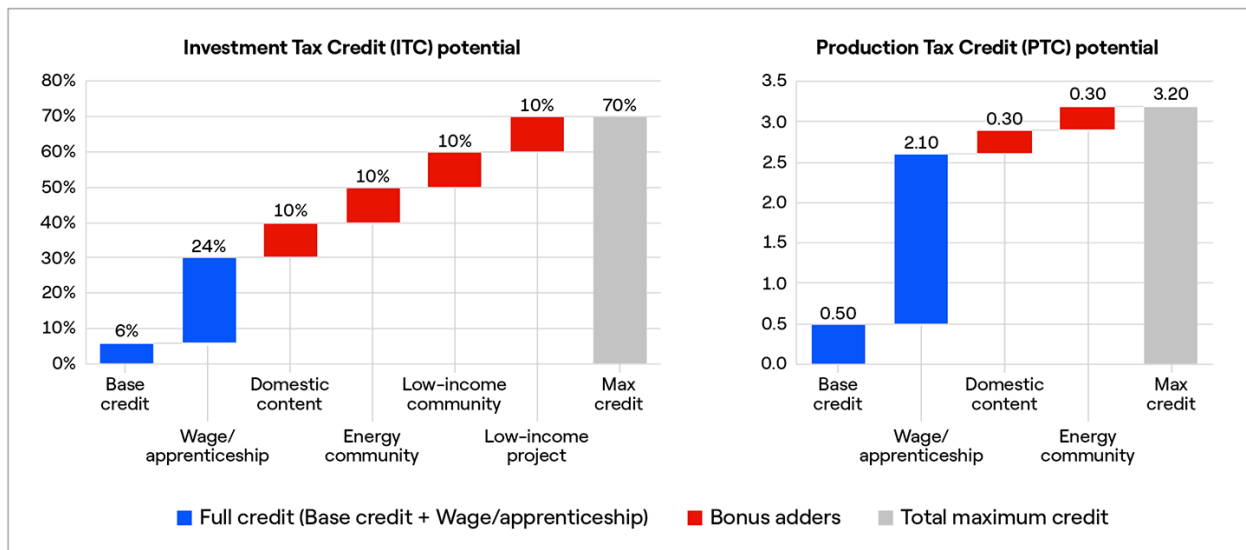
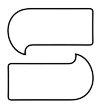


Figure 1. Enel North America’s depiction of stackable tax credit bonuses available under the IRA



Elective pay expands eligibility for tax credits: Tax-exempt entities (state and local governments, Tribes, school districts, nonprofits, publicly-owned utilities and other organizations that do not normally file a federal tax return) are now able to benefit from a dozen of these clean energy tax credits. After placing projects in service and filing for the tax credit, eligible entities will receive a direct cash payment equal to the value of the tax credit. Unlike competitive federal grant and loan programs, in which applicants may not receive an award, elective pay provides that a project will receive payment simply by meeting the eligibility requirements for both elective pay and the underlying tax credit. There is no limit on the amount of projects per year that can claim the tax credits eligible for elective pay.

List of tax credits and their eligibility under the Inflation Reduction Act

Electricity Fuels Vehicles Manufacturing

		Eligible for transferability	Eligible for direct pay ▼
45, 45Y	Clean electricity production tax credit	✓	✓
48, 48E	Clean electricity investment tax credit	✓	✓
45U	Zero-emission nuclear power production credit	✓	✓
45Q	Credit for carbon oxide sequestration*	✓	✓
45Z	Clean fuel production credit	✓	✓
45V	Clean hydrogen production tax credit*	✓	✓
30C	Alternative fuel vehicle refueling property credit	✓	✓
45W	Credit for qualified commercial clean vehicles	N/A	✓
48C	Advanced energy project credit	✓	✓
45X	Advanced manufacturing production credit*	✓	✓

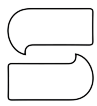
* Note: Direct payments for these credits are available to taxable entities for five years.

Source: Source: Legal Information Institute, "26 U.S. Code § 6417 - Elective payment of applicable credits," available at <https://www.law.cornell.edu/uscode/text/26/6417> (last accessed May 2023).

Table: Center for American Progress

Figure 2. [Center for American Progress](#) chart of IRA tax credits eligible for elective pay. As an important note: elective pay tax credits are not eligible for [transferability](#) at this time.

High Quality American Jobs Requirements: Projects that are larger than 1MW must comply with Prevailing Wage and Apprenticeship (PWA) and domestic content requirements to maintain the 30%



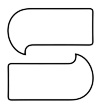
return through elective pay. Projects must pay prevailing wages and have 15% of labor completed by workers in approved apprenticeship programs. PWA requirements are similar to Davis-Bacon Act (DBA, referenced further below), but include an additional apprenticeship component. Please see this [FAQ document from the BlueGreen Alliance](#) for more detail on these workforce requirements.

How elective pay benefits communities: Elective pay enables nonprofits and governments to more cost-effectively build clean energy projects and secure all the benefits of ownership for their communities. These community benefits may include cost savings on energy bills, revenue from energy systems, and increases in property values. States have an important role to play in ensuring that these benefits flow to the communities with the greatest needs.

Tool 2: The EPA's Greenhouse Gas Reduction Fund (GGRF) scales the 'green banking' industry to offer affordable loans to cut emissions and build clean energy projects in underserved communities.

The Environmental Protection Agency has awarded \$27 billion to seed the nation's green finance ecosystem through the Greenhouse Gas Reduction Fund (GGRF). These competitively awarded grants will inject fresh capital into a network of financing organizations to deploy emission-cutting projects in Low-Income and Disadvantaged Communities (LIDACs). This \$27 billion is divided into 3 programs:

- The National Clean Investment Fund (NCIF) awarded \$14B across three awardees that each serve as 'National Green Banks,' focused on directly providing financial assistance to aid in the development and deployment of qualified emission-reducing projects. NCIF awardees are expected to leverage private financing at a ratio of seven private dollars for every federal dollar of GGRF funding. GGRF will prioritize equity, with at least 40% of capital flowing to LIDAC, consistent with the Justice40 Initiative. NCIF funds are flexible and can be used for most projects that reduce GHG emissions. The three NCIF awardees are:
 - Climate United Fund (Calvert Impact, Community Preservation Corporation, and Self-Help Ventures Fund) will invest in distributed power generation and storage, building decarbonization, and electric transportation across several market segments.
 - Coalition for Green Capital (a national green bank partnering with a network of state and local green banks) will focus on projects in the commercial market segment.
 - Power Forward Communities (LISC, Enterprise, Rewiring America, United Way, and Habitat for Humanity) will focus on decarbonizing the housing sector, including both multifamily and single-family homes.
- The Clean Communities Investment Accelerator (CCIA) awarded \$6B to Community Development Finance Institutions (CDFIs) and community lenders. CCIA's focus will be providing grants and technical assistance to community lenders, allowing them to finance projects in low income and disadvantaged communities and build lasting capacity for future lending. Loan repayments will be used to finance additional future projects. CCIA funds can be used for distributed renewables, net-zero buildings, and zero-emissions transportation



projects. Chosen for their record of funding projects across underserved communities, the awardees are: Opportunity Finance Network, Inclusiv, Native CDFI Network, Justice Climate Fund, Appalachian Community Capital.

- Solar for All awarded \$7B to sixty state, local, Tribal and community groups to deliver residential and community solar for low-income and disadvantaged communities across the country through grants, low-cost financing, and services to streamline siting, permitting, and interconnection of clean energy projects.

Tool 3: The Loan Programs Office (LPO) offers low-cost loans for large energy projects supported by State Energy Finance Institutions (SEFIs).

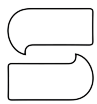
Through the Department of Energy's Loan Program Office (LPO) Title 17 Clean Energy Financing Program, LPO can offer low-cost debt financing for large-scale energy projects or portfolios of projects (usually greater than \$100 million) that receive [meaningful financial support](#) from an eligible State Energy Financing Institution (SEFI). Qualified projects can include renewable energy, energy storage, electrical generation, transmission, distribution, EV charging infrastructure, fleet electrification, energy efficiency retrofits, critical mineral supply, and industrial decarbonization technologies. Though Title 17 is typically reserved for innovative projects, when a state invests through a SEFI, the innovation requirement is waived, allowing LPO support for commercial technologies.

This financing from LPO is particularly transformative because of its scale, as it can cover up to 80% of the total project cost. LPO requires a project to have at least 20% in equity financing to protect against potential losses. That means LPO can provide \$80 million in low-cost financing for a project (or project portfolio) of \$100 million, dramatically improving the financial feasibility while lengthening debt payback periods. While LPO financing can be stacked with the tax credits discussed in [Tool 1](#), the same project cannot use LPO financing alongside other federal grants or loans.

The LPO's concessional financing can substitute for tax-exempt bond financing. If state and local developers finance an elective pay-eligible project through tax-exempt municipal bonds, they would face a haircut on their elective payment (at most, 15 percent) as per the IRA's tax-exempt financing penalty. A loan from the LPO could replace this part of the capital stack, allowing states and localities to claim elective pay on their projects without that haircut.

The LPO's concessional financing can support projects that are also supported by state grant programs, as these do not violate federal restrictions on "double dipping." State grant programs can contribute toward the LPO's requirement for "meaningful financial support" from a state instrumentality.

A [SEFI](#) is a state entity that can lend to or invest in energy projects with state funds. An existing Economic Development Agency, Housing Agency, Green Bank, State Energy Office, or Energy Authority, or a new entity established through legislation could all be designated as SEFIs under the



right circumstances. The LPO designates state entities as SEFIs only after they approach the LPO with project pipeline suggestions.

LPO determines whether “[meaningful financial support](#)” from a SEFI has been achieved on a case-by-case basis. Meaningful financial support could be as little as 1-5% of total project costs. By offering backing through loan guarantees, loan-loss reserves, lending, grants, equity investment, and other strategies, the SEFI can improve the credit evaluation of a potential borrower from LPO, and lower the interest rate premium paid by the borrower.

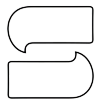
Projects that receive LPO financing must meet federal requirements that include (but are not limited to) making LPO loans senior debt and abiding by Davis Bacon Act (DBA), National Environmental Policy Act (NEPA), Cargo Preference Act, and, if a governmental organization or nonprofit, Build America Buy America (BABA) domestic content provisions.

[Recommendation 3](#) of this memo provides details on how states can pursue the SEFI/LPO financing strategy, both for a large scale project or for a portfolio of smaller projects. For more information on this opportunity, please see [Center for Public Enterprise’s memo on the SEFI carveout here](#).

Other notable Title 17 Clean Energy Financing Program opportunities: TELGP & EIR

While the SEFI provision discussed above is a critical tool for state teams to utilize, two other financing opportunities are notable:

- The **Tribal Energy Loan Guarantee Program (TELGP)** provides \$20 billion in loan authority for direct loans or partial loan guarantees to support energy-related projects initiated by Tribal governments and affiliated entities. The program’s financing can support investment in energy resources, including solar panels, wind farms, microgrids, and transmission and distribution infrastructure. More details can be found at [Energy.gov/LPO/Tribal-Energy](#) and an overview of the application process is available here: [Tribal Energy Financing Program Brochure](#). A detailed overview of Tribal energy financing is available here: [LPO Tribal Energy Financing Overview Slide Deck](#).
- The LPO’s **Energy Infrastructure Reinvestment (EIR)** program supports projects that repurpose, modernize, or replace existing, underutilized, and/or retired energy infrastructure, with eligible projects including renewable energy installations, energy efficiency upgrades, energy storage, mitigation of environmental impacts of energy infrastructure, and carbon capture. Energy infrastructure can include any facility and associated equipment used for generation and transmission as well as processing, production, and delivery of fossil fuels. Private companies, public entities, non-profits, utilities, and Tribal governments can apply for direct loans or loan guarantees, which cover up to 80% of project costs. More information can be found from the [DOE here](#).



II. Putting it All Together: Developing a Cohesive Strategy for Clean Energy Finance in Your State

After gaining familiarity with the elective pay, GGFR, and LPO financing tools, state leaders should connect those tools to their state's goals and policy priorities. Clean energy and other emission-reduction projects serve as a means to achieve many critical state priorities, as they offer significant economic, health, and equity benefits. Invigorating a local clean energy economy can bring jobs and businesses, reduce energy burdens, improve housing, enhance air quality, and can create community wealth. Clean energy projects should be prioritized across many state agencies, offices, and programs — not just the energy or environment offices.

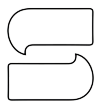
At a high level, the state can help attract clean energy investments by keeping the following principles in mind:

1. Increasing awareness of these programs and opportunities in both the public and private sectors helps the network of lenders, developers, and customers gain greater connectivity, and drive project pipeline.
2. These financing tools greatly reduce the cost of capital for these projects; the state can help by further reducing risks and extending financial supports with low costs of capital.
3. These programs are designed to revolve and recycle funds — the faster money gets to projects, the faster it can be recycled into more projects.
4. Focus on equity and underserved communities in planning to use new clean energy finance tools.

With these principles in mind, this memo outlines three recommendations to use these financing tools in attracting clean energy finance to achieve state goals.

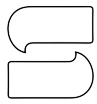
Recommendation 1: Maximize clean energy investments that can leverage elective pay

1. **Educate and Share Resources about Elective Pay & Eligible Projects:** Many elective pay-eligible organizations do not know that they can now receive tax credits for building clean energy projects. States are uniquely situated to educate and engage local governments, school districts, Tribes, and nonprofit community partners to empower them to take advantage of elective pay.
 - a. **Convene.** State governments can bring together key stakeholders to share the benefits, lessons learned, and project examples to generate awareness. For example, Michigan Infrastructure Office, Michigan Department of Environment, Great Lakes, and Energy's (EGLE) Office of Climate and Energy [hosted community roundtables with federal officials](#) engaging with local leaders to discuss elective pay. States could also create advisory committees to share knowledge, track usage and implementation of



elective pay to generate new clean energy investments, and provide ongoing connection among technical assistance providers, project developers and communities to understand and overcome challenges to using elective pay.

- b. **Direct education.** States should look for opportunities across state agencies to provide education to elective pay eligible entities. For example, the Massachusetts Federal Funds and Infrastructure Office highlights elective pay on [its website](#). In partnership with the state’s green bank, the Connecticut Department of Revenue Services, which licenses the state’s certified public accountants, provides information to CPAs about [clean energy tax credits](#).
 - c. **Procure shared assistance.** Some states are procuring shared tax and legal experts to assist nonprofits, tribes and local governments in navigating the elective pay filing process for the first time. The [Washington State Department of Commerce](#) and [Pennsylvania Governor’s Office of Budget](#) have each run competitive RFPs for legal, accounting or consulting services to support tax-exempt entities on understanding, filing for and claiming federal tax credits through elective pay.
 - d. **Assist with compliance.** Complying with labor and domestic content requirements has been identified as a key area of concern by elective pay eligible entities. States can ease this concern by providing assistance. For example, [California](#) and [Massachusetts](#) each provide resources that help with prevailing wage and apprenticeship requirements (PWA) and Davis Bacon Act (DBA) compliance.
2. **Enable Local Projects Through Project Financing:** Because the elective cash payment is received after the energy project is completed, it can be challenging for owners – especially community-based nonprofits and low-income communities – to fund all costs up front. Furthermore, some projects may require additional financial support to be viable, and for states to achieve their equity goals. States can solve this by offering unrestricted grant programs, bridge loans, long-term debt, or credit enhancements to eligible entities.
- a. **Bridge loan:** Bridge loans provide up-front capital to “bridge” the lag time between project development and receipt of the elective pay tax credit. [Minnesota’s Green Bank offered the first known elective pay bridge loan](#) to finance a ground source heat pump at an affordable housing development.
 - b. **Additional financing options.** States can add other financing support to further spur project development. This could include: unrestricted grant programs to aid with elective pay, general obligation tax-exempt municipal bonds, unrestricted grants through state programs for clean energy projects, revolving loan funds (from state energy offices or green banks), philanthropic dollars, and private activity municipal bond offerings to help leverage funding for new energy projects. Grants and tax credits may be “stacked” so long as the excess benefit principle is followed, whereby the total value received does not exceed project cost.
 - c. States can also help project developers gain access to other low-cost funds, including from GGRF awardees (as described in [Tool 2](#)) or through applying for LPO funding



(as described in [Tool 3](#)). If public funds are used strategically to de-risk and lower costs of capital for borrowers, these borrowers will have a greater ability to receive additional private financing to build the project at hand.

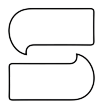
3. **Lead by Example Through Project Ownership:** State governments are among those eligible for elective pay tax credits. The reduced cost of investing in clean energy should empower states to set and achieve more ambitious clean energy goals for their own operations. Especially given the low interest rates at which states can borrow, they can often see short payback periods on new clean energy investments and significant cost savings in the long run.
 - a. States should source projects that will improve the operations and emissions profile of state fleets and buildings. Successful projects will require coordination across state agencies, with facility managers involved in developing projects, administrative functions related to tax filings centralized in a single state administrative office such as the comptroller or budget division, and establishment of accounting systems that allow for elective payments to benefit the agencies that devote the time to making these investments.
 - b. States should explore using state-owned land to build larger-scale renewable energy projects that generate revenue on underutilized parcels, and seek to cite projects that benefit low-income and disadvantaged communities.
 - c. States can create revolving loan funds for state agencies to secure up-front financing for projects that are elective pay-eligible.

Recommendation 2: Position your state to attract funds from GGRF awardees and build a high-quality project pipeline.

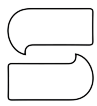
The \$27 billion GGRF program dramatically increases the scale of the nonprofit green finance industry, which unlocks new low-cost borrowing opportunities for Low-Income and Disadvantaged Communities to make critical investments in home energy improvements, rooftop and community solar, and other clean energy projects. Deploying this much capital at speed and scale will be challenging. GGRF recipients will need the support of state governments to help build high-quality project pipelines and ensure these projects can quickly and equitably secure the funding to be completed. Successful states will drive significant investment – and associated benefit – in their communities.

Getting ready for GGRF deployment

The table below outlines strategies and concrete steps state leaders can take to improve their GGRF readiness.



<i>Strategy</i>	<i>Action</i>	<i>Potential Steps to Take</i>
Help Financial Institutions Collaborate Effectively	Make introductions and foster in-state relationships for GGRF awardees.	<ul style="list-style-type: none"> • Designate a Governor-Office lead for Greenhouse Gas Reduction Fund (GGRF) financing opportunities for the state • Identify the NCIF, CCIA and Solar for All recipients (named awardees and sub-awardees) serving the state • Identify/contact the green bank and existing banking institutions (CDFIs, Credit Unions, community lenders) in your state • Consider governor/executive branch outreach to CEOs/Directors of NCIF winners to initiate coordination and collaboration
Support Whole-of-State-Government Approach	Explore state alignment with GGRF goals (J40 and 100% LIDAC for CCIA), including by convening relevant state agencies.	<ul style="list-style-type: none"> • Conduct a training or webinar internally for state employees in relevant agencies (e.g., energy, transportation, housing, resilience, finance) to inform them about the program and provide direction to plan ahead to support its implementation • Solicit input and advice from state executive branch agencies for advice on how existing programs can provide leverage or blending of state resources • Engage the state’s economic development authority to evaluate where existing efforts to deliver Low-Income and Disadvantaged Community (LIDAC) support dovetail with new financial products offered by GGRF recipients • Review existing climate plans and targets and identify which goals and objectives dovetail with the GGRF program’s three objectives: (1) cutting carbon pollution; (2) supporting LIDACs; and (3) leveraging GGRF funding with other sources of private and public capital • Issue executive orders to state agencies to identify viable clean energy projects, thereby building a pipeline of eligible projects and demand
Convene the Diverse Parties in the Ecosystem	Bring together market participants to foster connectivity and improve market-network effects.	<ul style="list-style-type: none"> • Host a speech or event with stakeholders on financing the clean energy transition in the state • Host a launch event with a particular GGRF partner or other events to publicize GGRF opportunities in your state • Hold a roadshow to raise awareness of the opportunity that the GGRF presents, including with leaders in LIDACs • Invite representatives from GGRF recipients, the White House, Treasury, EPA, Department of Energy to visit LIDACs in your state to raise awareness about GGRF and tax credits. See example from Michigan • Identify stakeholders involved in GGRF program success and convene them to foster collaboration. Examples: identifying eligible tax-exempt entities seeking development services and support; establishing a network of vetted contractors that can assist with project design and development; matching up appropriate financing based on needs; matching suppliers and EPCs with needs and timelines; enabling group buying rates on equipment or pro/low bono for service providers such as legal, accounting, insurance, banking,



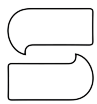
		<p>engineering procurement and construction, permitting, interconnection, financing documentation, etc.</p> <ul style="list-style-type: none"> ● Create simple and easy-to-use financing dashboards for clean energy. Michigan’s EGLE office has created this dashboard, as an example
Foster a High-Impact Project Pipeline	Provide resources and/or assistance to streamline pipeline development.	<ul style="list-style-type: none"> ● Devote resources (e.g., staff, grants, services) to attract national-level NCIF/CCIA investment into your state. Examples: legal and accounting services (example from WA); grants to low-income, disadvantaged or small business owners, women and minority owned businesses (example from MN); identifying and offering public sites for clean energy projects; launching or expanding climate-ready workforce development (example of American Climate Corps); simplifying or accelerating permitting. ● Assist in developing a robust project pipeline, such as by providing suggested public sites (example from NM), simplifying and accelerating permitting processes, supporting workforce/staffing (especially supporting with understanding and compliance with Davis Bacon Act, as California and Massachusetts have each provided resources to aid in this capacity), or considering alternative ownership models; or directly owning and operating clean energy facilities that are now eligible for elective pay tax credits and that deliver value to LIDAC households.

Create a policy landscape that attracts clean energy financing & GGRF funds

In addition to the strategies listed in the table above, state leaders can advocate for a policy landscape that is more conducive to attracting GGRF funds and clean energy investment to the state. [Analysis by the Natural Resources Defense Council \(NRDC\)](#) evaluated the readiness of each state for GGRF deployment and recommended additional actions to further attract investments¹. In some cases, the IRA may include technical assistance funds to states pursuing these policy objectives. Some enabling policies mentioned in the linked NRDC report include:

- Enact a renewable portfolio standard (RPS) with a distributed energy carve-out
- Support community renewable energy (especially community solar) enabling legislation with low-income provisions
- Support net metering and streamline interconnection procedures
- Institute a Building Performance Standard (BPS) for existing buildings
- Ensure building energy codes foster energy efficiency improvements
- Create or expand utility energy efficiency incentive programs
- Set transportation goals to reduce Vehicles Miles Traveled (VMT) and GHGs in transportation planning and public transportation funding strategies
- Strengthen vehicle emissions standards

¹ Elizondo, I., & Kent, A. (2024, May 24). Climate Money Is Flowing but Are States Ready for the Greenhouse Gas Reduction Fund? NRDC.
<https://www.nrdc.org/resources/climate-money-flowing-are-states-ready-greenhouse-gas-reduction-fund>



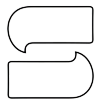
Recommendation 3: Aggregate & invest in large scale project portfolios with LPO financing.

As discussed in [Tool 3](#), states that offer meaningful support through State Energy Financing Institutions (SEFIs) can make large-scale clean energy projects (usually greater than \$100 million) eligible for low-cost financing from the Department of Energy’s Loan Program Office (LPO). There are three different models for states to use to unlock LPO financing by using a SEFI. In each model, the state plays a different role:

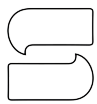
1. a project owner, developer, and borrower from LPO itself.
2. a project aggregator, facilitating the collection of a portfolio of small projects, or
3. an enabler or investor of a privately-owned project

Three Models for LPO Financing through a SEFI

Model 1: State as Developer	Model 2: State as Aggregator	Model 3: State as Enabler
<p>Summary: The state, through a SEFI, can develop and own a project or an aggregation of projects itself. The SEFI itself can be the developer and LPO borrower, or it can create a Special Purpose Vehicle (SPV) for this process. The state can then lease the projects to other partners, or use the projects in its own operations. Please see this resource from CPE for more on SPVs and this strategy.</p>	<p>Summary: The state can help facilitate the creation of a Consortium in which multiple site hosts and owners develop a standardized project portfolio under a lead project development entity. The Consortium lead entity and LPO borrower can be a Special Purpose Vehicle (SPV) or a third-party company, and the projects could include tax exempt nonprofit organizations and local governments, or private sector owners and developers. The state can support the Consortium lead project aggregation and LPO application. The Consortium lead would be the borrower from the LPO, with the SEFI providing ‘meaningful support’ (the state is not the borrower).</p>	<p>Summary: The state can actively solicit and connect with qualified projects planned for development or underway, and provide ‘meaningful support’ from a SEFI (1-5% of project costs at a minimum). The state’s meaningful support makes LPO financing available for commercial (rather than innovative) technologies. The private developer applies for LPO financing directly.</p>
<p>Example Projects: Solar on Schools; EV fleets for local governments; electrification and efficiency at local government buildings; utility-scale renewable energy on state-owned lands.</p>	<p>Example Projects: Community solar on nonprofit properties; electrification and energy efficiency upgrades at affordable housing complexes; EV charging at colleges, and battery storage at hospitals.</p>	<p>Example Projects: Industrial facilities making energy efficiency upgrades; a company building a manufacturing plant for clean energy components.</p>



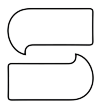
<p>Process:</p> <ol style="list-style-type: none"> 1. The state identifies one or more entities that can serve as SEFIs within the state. 2. The state identifies projects that could benefit from SEFI support by issuing a Request for Information (RFI). 3. A SEFI identifies a project or aggregation of projects in which it would like to invest. This could include through the Request for Information (RFI) described above, or by a Request for Proposals (RFP) for a Project Development Company to develop projects with site hosts. 4. The SEFI provides initial funding for the project, directly or through the creation of a Special Purpose Vehicle (SPV). 5. If necessary, the SEFI or SPV signs lease agreements with site hosts (organizations, typically nonprofit or public, at whose facilities clean energy projects will be located). The state or SPV pays the Project Development Company to develop the project on behalf of the site hosts (for no money down), and the site hosts agree to lease the project assets (e.g. solar panels) and make lease payments from their energy savings over time back to the SEFI or SPV. 6. The SEFI or SPV apply to LPO to secure remaining project financing. 7. The SEFI or SPV applies for and receives the relevant elective pay tax 	<p>Process:</p> <ol style="list-style-type: none"> 1. The state identified entities that can serve as SEFIs within the state. 2. The state identifies projects that could benefit from SEFI support by issuing a Request for Information (RFI). 3. The state identifies a Consortium lead. This could include through the issuance of the Request for Information (RFI) described above, or Request for Proposals (RFP) for a Project Development Company to serve as the Consortium lead. 4. In collaboration with the Consortium lead, the state helps aggregate a standardized project portfolio of greater than \$100 million. If necessary, the Consortium lead creates an SPV to aggregate projects under one entity. 5. Consortium lead acquires at least 20% of total project costs as equity investment from state or local partners, philanthropy, or private partners, to meet LPO requirements. 6. The SEFI commits LPO-approved “meaningful financial support” to the Consortium lead through subordinated debt, credit enhancements, grants, equity investment, loan-loss reserves, or other means. 7. Consortium lead applies to LPO on behalf of the entire portfolio of projects. The Consortium lead will need at least several million dollars for application expenses, much of which can be reimbursed from the first draw on the loan proceeds, as well as the 0.6% commitment fee, which cannot be reimbursed. 	<p>Process:</p> <ol style="list-style-type: none"> 1. The state identified entities that can serve as SEFIs within the state. 2. The state identifies projects that could benefit from SEFI support by issuing a Request for Information (RFI). 3. State finds an entity with a new, proposed, or developing qualifying project, and the appropriate SEFI (or set of SEFIs) provides meaningful financial support through subordinated debt, equity investment, grant, loan-loss reserve, guarantee, credit enhancement, or other means (totaling greater than 1-5% of project costs). Projects may include those already receiving state government financial support and that could now be made eligible for LPO financing. 4. State connects the entity with LPO, ensures LPO can certify the state’s financial support with a SEFI ‘meaningful state support’ designation, and can help the entity apply for LPO financing. <p>Note: If your state has already given grants or ‘meaningful financial support’ to ongoing large scale clean energy projects, the state can encourage these entities to apply for LPO financing directly, or the state can aggregate smaller projects into a portfolio and apply to LPO.</p>
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<p>credits (likely covering 30%+ of project costs).</p> <p>8. Revenues from these projects and tax credits can be used in a revolving loan fund that finances additional projects, through the SEFI or SPV.</p> <p>9. Over time, the SEFI or SPV could transfer ownership of the projects to site hosts, ensuring this ownership transition occurs after the tax credit recapture period.</p>	<p>8. If an SPV is utilized, SPV secures LPO financing and creates a pool for partners to draw from for portfolio projects.</p> <p>9. If SPV is utilized, the site hosts for each project borrow from the pool for individual projects, claim tax credits and possibly provide tax credits back as part of their loan repayment to the SPV.</p> <p>10. With efficient execution, repaid funds can be available to an SPV as cash to support equity requirements for subsequent LPO draws.</p>	
<p>Advantages:</p> <ul style="list-style-type: none"> - Lowest borrowing costs due to public credit rating. - Opportunity for positive state leadership - Significant opportunity for widespread, large scale, and incremental community and economic impact. - Maximal opportunity for elective pay tax credit benefits. 	<p>Advantages:</p> <ul style="list-style-type: none"> - Significant opportunity for widespread, large scale, and incremental community and economic impact. - Limited risk for state funds because state is not a direct borrower from LPO - Provides access to low-cost financing for private applicants to LPO. - Develops an ecosystem of new project owners and developers that can foster local market development 	<p>Advantages:</p> <ul style="list-style-type: none"> - Lowest lift model for state - Limited risk for state funds because state is not a direct borrower from LPO - Provides access to low-cost financing for private applicants to LPO. - Increases financial profile, impact, and likelihood of completion of planned projects
<p>Disadvantages:</p> <ul style="list-style-type: none"> - State becomes direct borrower to LPO, with greater financial responsibility for project completion and potential risk for state funds. - State bear responsibility to oversee project Operations & Maintenance (O&M) - Increased complexity and requires significant coordination resources. - Requires significant state leadership. 	<p>Disadvantages:</p> <ul style="list-style-type: none"> - Increased complexity requires significant coordination resources. - Requires significant state leadership to achieve buy-in of project development company and third-party partners - May face higher borrowing costs than if the state were the direct borrower from LPO 	<p>Disadvantages:</p> <ul style="list-style-type: none"> - May not lead to many new projects if the projects are already planned and bankable without LPO financing - Private sector applicant may receive higher interest rate without public credit rating

Taking Action: State Leaders' First Steps Towards SEFI/LPO Financing

After becoming familiar with the opportunity of LPO financing and potential models for doing so, state leaders can take their first actions by following the steps outlined below.



1. Identify potential SEFIs in your state

A state can have multiple entities that could qualify as a SEFI, as long as they can provide meaningful financial support to qualifying clean energy and emissions-reducing projects. These include, but are not limited to:

- State Green Banks
- Economic Development Authorities
- Department of Commerce
- Housing Finance Authorities
- State Energy Office

2. Connect with LPO for pre-application support and devote resources to application

The LPO team can be a resource throughout the application process to provide guidance, feedback, and support. The application timeline is estimated to be one year. LPO provides [guidance documents](#) for drafting an application and meets regularly with potential applicants, starting with [pre-application consultations](#). If feasible, the state should devote staff time and resources to managing the LPO application process, as well as associated application fees.

3. Identify potential project types and partnership organizations, through a public Request for Information (RFI)

The many qualifying project types offer opportunities to get creative in designing projects that maximize community impact. Potential ideas include:

- Maintenance improvements and solar installation on state-owned buildings and lands
- Solar plus storage on schools, colleges, hospitals, public lands, or municipal facilities
- Energy efficiency upgrades, heat pumps, and building electrification for public buildings, hospital systems, affordable housing complexes, and schools.
- Improvements to landfills to reduce methane leaks
- Electric vehicles and EV charging infrastructure for all types of municipal vehicles
- The building or renovating of clean energy manufacturing sites

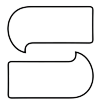
Please see Center for Public Enterprise's [model RFI as a resource here](#).

4. Pick the SEFI/LPO financing model strategy to pursue

Based on the state's economic context and state government capabilities, decide which SEFI model to pursue: state as enabler, state as aggregator, or state as borrower. The SEFI could use many strategies to support the project(s) at hand. Grants or equity investments should be used for newer, riskier project types, while loans should be used for more established technologies. Credit enhancements and loan guarantees can also be utilized.

5. Connect partnership organizations to plan and apply to LPO

Bring together site hosts, such as schools, and other partners to share in the project vision and financing plan. After project types, partners, and SEFI financing are determined, ensure that

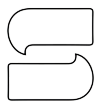


agreements are signed to form the SPV (if relevant) and the accompanying leases for the projects. Then, apply to the LPO.

III. Conclusion

The new clean energy financing sources created by recent federal legislation create a transformative opportunity to states that put them into use with thoughtful, cohesive strategies. States that lead in facilitating use of elective pay tax credits, preparing for the Greenhouse Gas Reduction Fund launch, and utilizing financing from DOE's Loan Program Office through a State Energy Financing Institution will maximize economic and clean energy impact in their communities.

We hope this memo provides you with a helpful starting place in fostering clean energy investment and positive economic impacts. Please reach out to the State Support Center team for additional resources, guidance, and strategies.

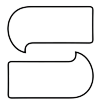


Appendix 1: Additional Resources & Organizations

If you would like additional guidance and connections to technical assistance expertise, please contact the State Support Center at S2 Strategies by emailing Melissa Cheatham (melissa@s2strategies.org).

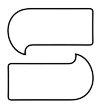
Here are some additional organizations and resources:

- Looking for grant programs and resources for clean energy? Check out the [State Funding Readiness Project](#), [Atlas Climate Portal](#), and [this spreadsheet](#) from Evergreen, RMI, and Climate XChange.
- Lawyers for Good Government (L4GG) (Jillian Blanchard): is a nonprofit with a nationwide network of over 125,000 legal advocates in all 50-states. L4GG has built the [Clean Energy Tax Navigator](#), a one-stop-shop to help entities claim elective pay
- Center for Public Enterprise (CPE) (Paul Williams, Chirag Lala, Yakov Feygin, Advait Arun) is an NGO based in Brooklyn, NY, whose aim is to grow the role for the public sector in the 21st-century economy by helping to establish new public financial and project development institutions that can overcome today's market constraints.
 - CPE created a [Elective Pay/Elective Pay financing model](#) that can help elective pay-eligible organizations understand elective pay's impact on the costs and outputs of an energy project. For a description of how the model works, read [this CPE report](#).
 - CPE has also created an overview of the [SEFI carveout](#) for Title 17 financing, and a discussion of how [SPVs can be used](#) to unlock LPO financing.
 - For states looking to identify project pipelines they can support through their SEFIs, CPE has created a [Model RFI template](#) with a set of best practices for state engagement with the LPO.
- Center on Budget and Policy Priorities (CBPP) (Rachel Jacobson, Samantha Jacoby): DC-based progressive non-partisan think tank advancing federal and state policies for broadly-shared prosperity, with a network of 40+ state affiliates advancing progressive state policies.
- Clean Energy States Alliance (CESA) (Vero Bourg-Meyer): A national nonprofit coalition and membership association of state government agencies working together to advance clean energy, with a particular focus on IRA implementation and Solar for All.
- Natural Resources Defense Council (NRDC) (Adam Kent): One of the nation's largest environmental NGOs, with deep knowledge of IRA investments and strong technical, legal finance and modeling expertise on-staff.
- Energy and Climate Solutions Group at Wilson Sonsini (Jaron Goddard): Attorneys offering expertise in clean energy project finance, project development, energy regulatory, and tax law.
- NYU Tax Law Center (Michael Kaercher, Grace Henley): Seeks to protect and strengthen the tax system through rigorous, high-impact legal work in the public interest. The Center provides technical input on tax legislation, comments on tax regulations, and submits amicus



briefs in tax litigation, with the aim of improving the integrity of the tax system, saving and raising revenues, and advancing equity.

- RMI (Whitney Mann, Yuning Liu, and Alisa Petersen): RMI researches, identifies, and develops interventions to transform the energy system for a clean, prosperous, zero-carbon future for all.



Appendix 2: Illustrative Examples

These high level examples that illustrate the types of projects these financing tools can enable:

<p>EV Charging: Advance deployment of zero-emission vehicles and ZEV fueling infrastructure</p>	<p>Potential federal grants: Charging and Fueling Infrastructure Grant, Carbon Reduction Program (both through DOT)</p> <p>Tax credits: Alternative Fuel Vehicle Refueling Property Credit (30C) covers up to 30% of the cost of EV charging stations if in 30C eligible area and when PWA is met, up to \$100,000. This tax credit is elective pay eligible.</p> <p>Additional financing: potential for GGRF financing</p>
<p>Solar + Storage for Schools</p>	<p>Potential grants: DOE - Renew America’s Schools</p> <p>Tax credit: Direct pay eligible for Section 48: Investment Tax Credit, 30%+</p> <p>Additional financing: Through GGRF (specifically NCIF program recipients) and potential for SEFI funding, with LPO backing.</p>
<p>Replace existing school buses with zero-emission vehicle school buses in environmental justice communities</p>	<p>Potential grants: EPA - Clean School Bus Program; EPA - Diesel Emission Reduction Act (DERA) grants; EPA - Clean Heavy Duty Vehicles Program; USDA - Community Facilities Direct Loan and Grant Program</p> <p>Tax credits: Eligible for elective pay with Section §45W Commercial Clean Vehicle Credit (Up to \$40,000)</p>
<p>Residential housing project with high energy efficiency standards</p>	<p>Potential grants: DOE - Home Energy Rebates, DOE - Energy Efficiency Revolving Loan Fund Capitalization Program</p> <p>Tax credits: § 45L New Energy Efficient Home Credit</p> <p>Additional financing: GGRF: NCIF could finance incremental cost of efficiency. SEFI: State grants or financing (“meaningful support”) from a housing finance authority could make a bundle of projects eligible for financing, such as loan guarantees, backed by LPO.</p>