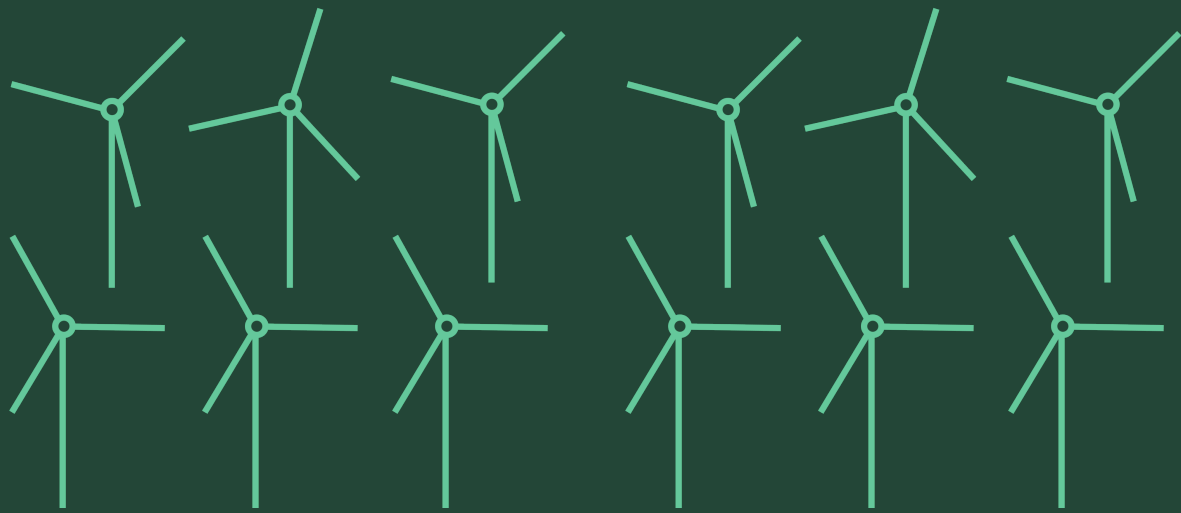


Center for Public Enterprise



Special Purpose Vehicles

Augmenting the “SEFI Carveout”: How Special Purpose Vehicles Can Facilitate Large Project Pipelines

Executive Summary

Many state governments and their financing authorities are putting together plans to support decarbonization project development through the creative application of federal funding pools such as the Greenhouse Gas Reduction Fund and the Loan Programs Office’s (LPO) Title 17 financing authority.¹ LPO co-lending provides a massive volume of capital for decarbonization projects that state governments and project developers alike may not want or be able to raise from private lenders. In other words, it represents more capital available at cheaper rates and lent via a public sector institution enthusiastic about supporting states’ decarbonization goals.

While both project developers and governments are expressing substantial interest in securing public-sector financial support, many of their projects are likely smaller than the \$100 million minimum transaction size required by the LPO. In this issue brief, CPE presents a set of recommendations for how state policymakers can circumvent this transaction size minimum by capitalizing a special purpose vehicle (SPV) to aggregate a sufficiently large project pipeline. In summary, these recommendations include:

- Having a State Energy Financing Institution (SEFI) capitalize an SPV with a project pipeline larger than \$100 million to prepare to draw financing from the LPO.
- Providing “meaningful support” to the SPV through equity capitalization and other financing such that total SEFI participation in the SPV is at least 20% of the total project pipeline size.
- Seeking meaningful support commitments from other state financing institutions.
- Applying to the LPO such that the LPO approves the SPV’s request for debt financing for its project pipeline.
- Enabling project developers to draw debt from the LPO via the SPV
- Ensuring that project developers can repay the SPV such that the SPV can repay the LPO.

Where states want to support energy generation projects that are eligible for elective pay, their SEFIs could also:

- Capitalize wholly owned project LLCs (limited liability corporations) that commit their renewable energy development projects to the SEFI SPV’s project pipeline.
- Ensure that these LLCs can access elective payments from the IRS to support their projects and to help guarantee repayment of debt to the SPV.

¹CPE has put out its own [Model RFI](#) for states that are interested in engaging in this process, along with a set of best practices for what engaging with the LPO requires of state policymakers.

This approach, combining SPVs and LLCs, allows the SEFI to avoid using its own balance sheet capacity for project development, beyond capitalizing LLCs and providing meaningful support as required by the Title 17 statute.

In this brief we (1) explain how SPVs and LLCs work to allow policymakers to engage in off-balance sheet and non-recourse project financing; (2) describe the structure of a potential SEFI-backed SPV; (3) flesh out these topline recommendations for SPV structures; (4) outline some risk management guidelines; (5) consider potential regulatory barriers to uptake; and (6) highlight potential immediate state and cross-state applications for this SPV structure.

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I. Introduction

The State Energy Financing Institution (SEFI) carveout allows projects that normally do not meet the Loan Programs Office's (LPO) innovative technology requirements to access its \$40 billion loan authority under Title 17 Section 1703, so long as they are also supported by a state government instrumentality. The SEFI carveout allows the LPO to become an anchor investor for an ever-expanding network of state-sponsored green banks and other public financing instrumentalities to mobilize a massive volume of cheap and concessional capital for energy and decarbonization projects.

One major barrier to the widespread uptake of the SEFI Carveout is the LPO's transaction size minimum of \$100 million. Many individual energy projects seeking financing—solar arrays, building retrofits, EV car charging stations, etc.—do not meet this minimum. However, SEFIs can aggregate them into a portfolio that does meet the minimum through the use of a special purpose vehicle (SPV).

SPVs are a common “off-balance-sheet” financial structure that corporations use to support new investments without exposing their existing portfolio to additional risks. This briefing explains how state governments can establish SPVs to aggregate projects to efficiently deploy LPO financing.

II. SPVs and Project Finance

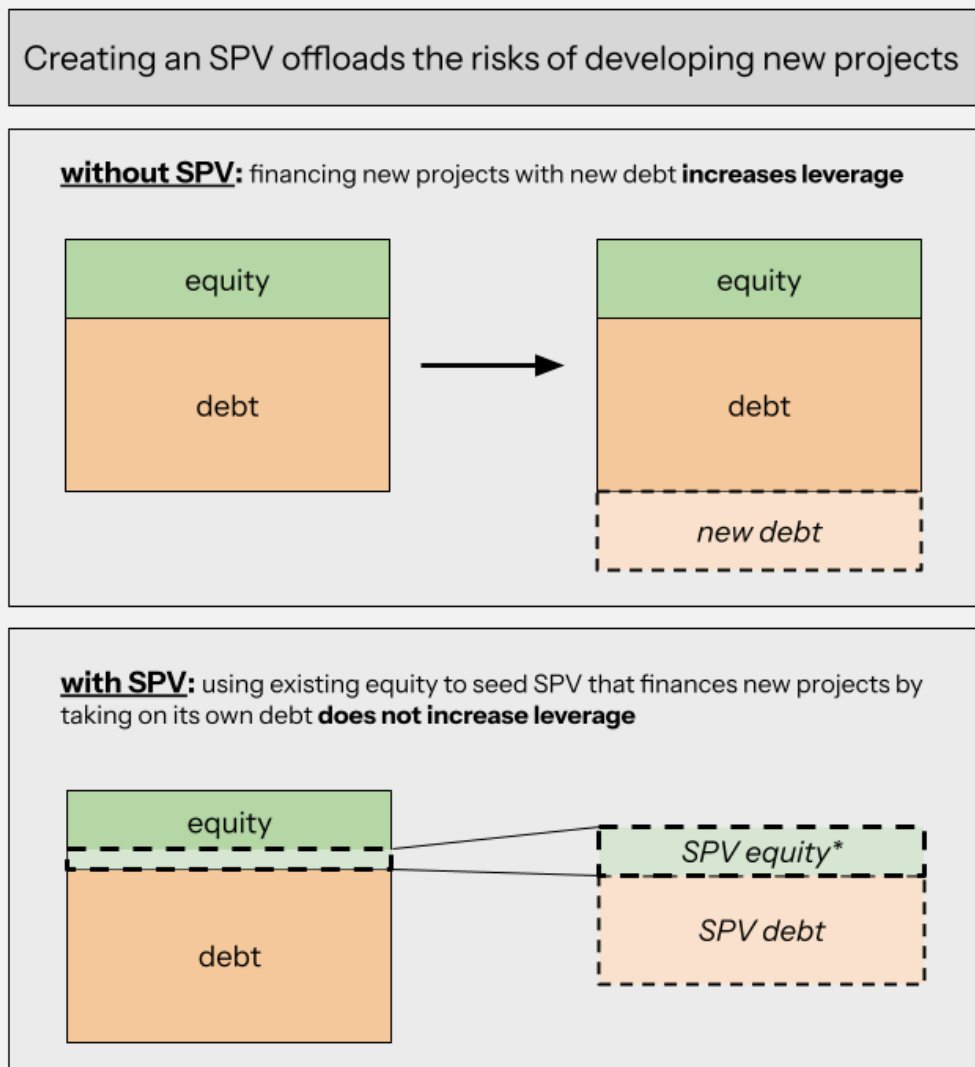
A state green bank or financing instrumentality interested in project development might be worried that taking on additional debt to finance new investments could, by raising the ratio of debt to equity on its balance sheet (its leverage ratio), threaten its credit rating and their ability to raise more capital. So, rather than keep new debt-financed investments on its balance sheet, a state green bank could undertake those investments off its balance sheet. This is why most large-scale, capital investments, including energy projects, are financed through the “project finance model.”

The project finance model separates out the project assets being financed from their parent entity by placing those assets into a special purpose vehicle (SPV). In this case, the project development SPV is usually incorporated as a limited liability company (LLC). In addition to simplifying the parent firm's accounting, moving project assets into an LLC allows a project developer to raise capital specifically against the future returns of the assets being financed rather than against the rest of its balance sheet. (This is in contrast to the corporate finance model, whereby firms raise capital against their entire balance sheet.) Any debt in a project finance transaction is considered “non-recourse” debt, meaning that a lender cannot claim the developer's other assets in the event of a project's bankruptcy.

An LLC is just one type of legal structure that can be used to establish an SPV. There are SPVs designed for all kinds of purposes: beyond individual project LLCs, there are SPVs that aggregate project pipelines, warehouse debt assets, securitize and sell off loan portfolios, and reinvest a parent company's excess cash flows. Importantly for the purposes of this issue brief, SPVs can own a portfolio of assets rather than just one specific project.

Many financial institutions and developers use SPVs to develop and/or lend to projects—and so can state governments. Through a green bank, economic development authority, or other potential SEFI, a state can capitalize an SPV with its own equity and have the SPV take on debt to finance new projects rather than doing so itself. The SPV takes on riskier project debt on the state’s behalf, and, in the event that those new projects cannot repay their debts, the SPV’s bankruptcy would have minimal impact on the sponsor—in this case, the state, which would have to write down the equity it invested in the SPV. That loss would be far smaller than if it took on those debts itself.

Figure 1. SPVs allow their parent entities to avoid taking on extra leverage.



*SPV equity can be debt-financed rather than equity-financed in what’s called a “back-leveraged” structure.

The non-recourse nature of project finance, introduced above, means that the SPV's credit rating is often slightly lower than that of its developer. A parent entity can guarantee increments of the SPV debt to increase the SPVs borrowing capacity, but over-reliance on this tactic defeats the purpose of establishing the SPV in the first place.² Both the parent and its SPV will face the challenge of finding sufficient volumes of affordable debt finance for their projects. SPVs specifically must find a way to retain the non-recourse nature of their debts while securing the necessary financing.

Public entities, in particular, face complex tradeoffs between their role as creditworthy custodians of taxpayer funds and as mission-driven lenders willing to take on higher leverage to support specific policy goals. Non-recourse SPV structures offer public entities the ability to protect their credit ratings when undertaking high risk development, but may struggle to access high volumes of lower-cost capital relative to full-recourse borrowing. In these situations, even highly rated public entities that are often able to find relatively low-cost, administratively flexible financing on capital markets may find the concessionary rates and volume offered by the LPO attractive, specifically because the LPO will provide it and private markets may not.

III. Leveraging LPO Capital Through an SPV Structure

To leverage LPO capital for multiple projects that do not meet the LPO's minimum suggested transaction size of \$100 million, a SEFI can establish an SPV that either lends to, or manages a portfolio of projects which, in aggregate, meet the threshold.³ This strategy opens a variety of projects—including community and rooftop solar and storage, building retrofits, and EV car charging stations, which typically do not meet the LPO's minimums and often face large financing gaps—for LPO support.

Project developers would have to meet other requirements under both the SEFI carveout and Title 17, including NEPA, Build America Buy America (domestic content), and Davis-Bacon requirements, not to mention signing Community Benefit Agreements and evaluating other local impacts.

The SEFI itself would need to demonstrate that it has provided “meaningful financial support” to these projects and that the LPO's debt would be senior to the SEFI's contribution (as in, repaid first). SEFI support must last through the duration of a project's useful life. The LPO has demonstrated its willingness to be flexible about the definition of “meaningful financial support” and in the designation of SEFIs.⁴ While Title 17 suggests that LPO debt can fund a maximum of

² In some circumstances, a developer may opt to allow for “limited recourse” against specific pledged collateral to lower the cost of borrowing to finance a new LLC or SPV.

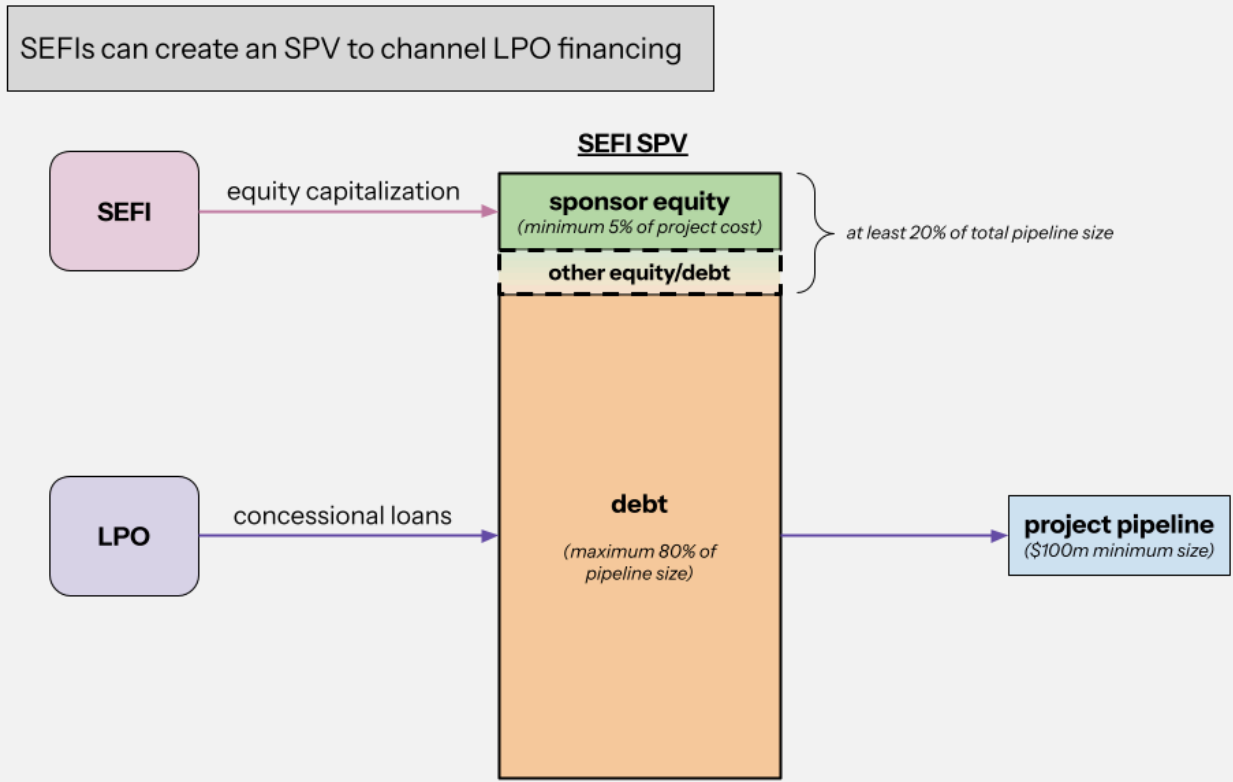
³ The LPO highlighted the promise of an SPV structure at multiple events, including this webinar hosted alongside the Department of Energy's Office of State and Community Energy Programs. Here are their [slides](#). One reason why the LPO has a \$100 million minimum threshold is because the LPO's per-project due diligence and underwriting costs would be too large relative to the smaller project size.

⁴ CPE has previously detailed how the SEFI Carveout works [here](#). We recommend this paper as an introduction to Title 17 and its concessional finance potential. For a guide to how state policymakers should understand what counts as “meaningful support,” we recently published a Model RFI template and a set of Best Practices for engaging with the LPO, accessible [here](#).

80% of a project’s costs, the LPO is more likely to cover only between 50-75% of project costs. Project developers and state governments should keep these considerations in mind.⁵

Sponsor equity must consist of at least 5% of the project’s capital stack—in this case, the SPV’s capital stack. If the SEFI acts as the project sponsor and contributes at least 5% in sponsor equity, that equity stake will also likely constitute a demonstration of meaningful financial support.⁶ Upon meeting these requirements, the SPV can apply to the LPO for concessional loans.

Figure 2. SEFIs can stand up SPVs as conduits of LPO debt finance into a project pipeline.



⁵ The Rocky Mountain Institute (RMI) has published guidance on how utility companies can use an SPV structure to access the LPO’s Title 17 financing authority through the Energy Infrastructure Reinvestment (EIR) program. See: Fong, Christian; Posner, David; Varadarajan. May 24, 2024. “Maximizing the Value of the Energy Infrastructure Reinvestment Program for Utility Customers.” RMI. Available at: <https://rmi.org/maximizing-the-value-of-the-energy-infrastructure-reinvestment-program-for-utility-customers/>.

⁶ Meaningful support will likely have to be financed via state funds rather than other federal funds. Thus, direct contributions to equity from federal programs like the Greenhouse Gas Reduction Fund (GGRF) may not meet meaningful support requirements. However, this does not exclude using GGRF funds in the capital structure or using GGRF funds to back leverage SEFI contributed equity.

A SEFI-supported SPV can act either as a lending platform to a project pipeline owned by third parties—public, private, and non-profit—or to finance projects directly capitalized and owned by the SEFI. Below, we outline the steps to establish both types of entities.

Financing Clean Energy Project Development:

1. **Create a portfolio:** The SEFI develops a project pipeline of over \$100 million in total project costs and aggregates them into a standardized portfolio.
 - The SEFI should engage in a process that identifies its state’s needs in consultation with relevant stakeholders, such as state energy offices, legislative offices, utility commissions, labor leaders, and municipality leaders.
 - The SEFI should then solicit information, qualifications, and projects from developers through Requests for Information, Proposals, and Qualifications (RFIs, RFPs, and RFQs).⁷
 - The SEFI should secure a credit rating for its potential portfolio prior to applying to the LPO for financing, in order to speed along the LPO’s due diligence process.
2. **Capitalize an SPV:** The SEFI uses its equity to capitalize an SPV committed to financing the development of this portfolio. Total equity in this SPV must be greater than 20% of the portfolio size, with at least 5% being sponsor equity from the SEFI.
 - This equity counts as “meaningful support,” as per the SEFI Carveout guidelines.
 - The SEFI can also secure equity commitments from other state, local, and philanthropic partners. It can entice them into participation if needed by promising dividends and/or a certain return on equity.
 - The SEFI can also go to capital markets or philanthropic investors for additional sources of debt, if needed.
3. **Provide other meaningful support as needed:** All SEFI-eligible entities investing in the SPV can commit to providing other kinds of “meaningful support” to projects in the SPV portfolio as needed.
 - Other forms of meaningful support include but are not limited to grants, concessional loans, mezzanine debt, land, in-kind project development assistance, and tax abatements. Offtake power purchase agreements could also be considered meaningful support.

⁷ New York Power Authority (NYPA) used these information-gathering processes to begin [pre-qualifying](#) private developers across the state as potential pre-approved partners in project development. CPE has [previously published](#) a model RFI as well as broader guidance for SEFI best practices.

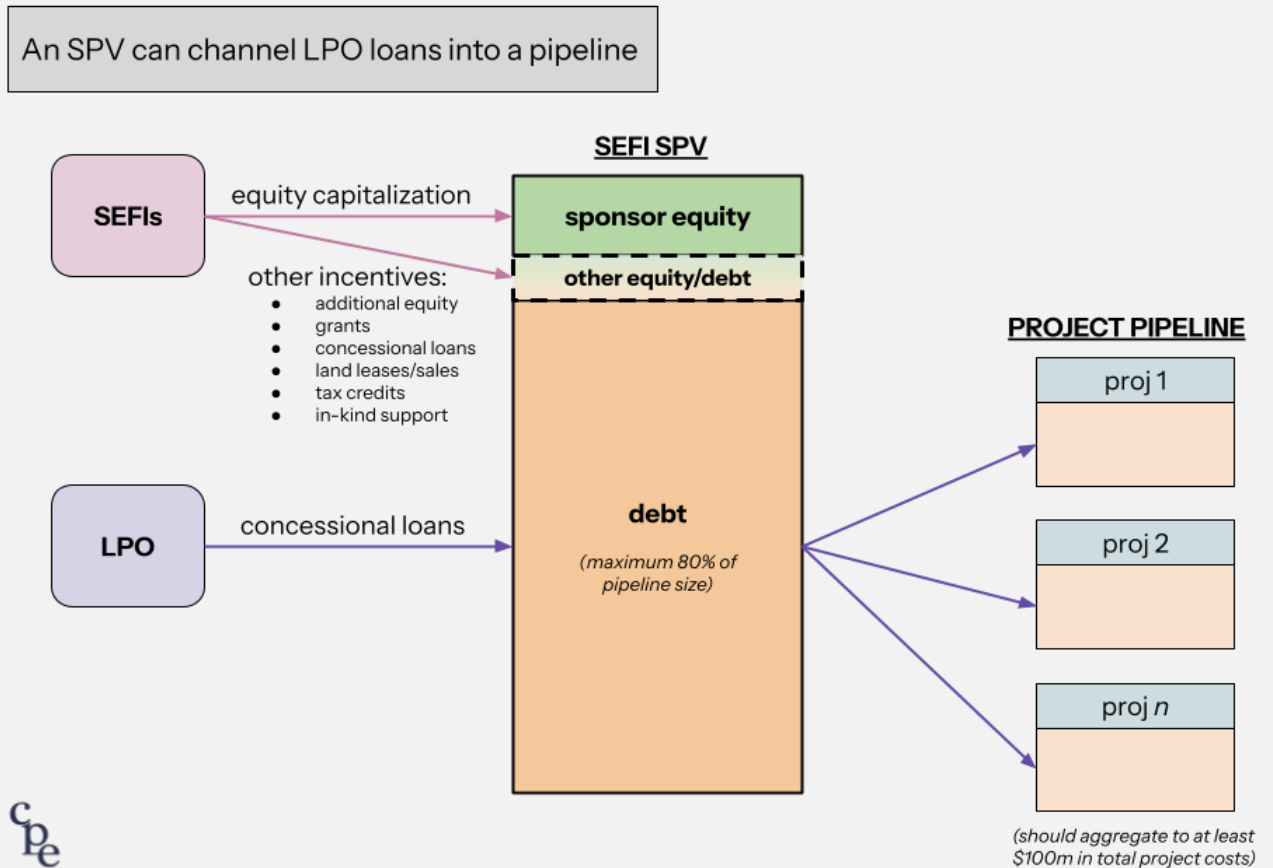
- The LPO has stressed that a SEFI’s “meaningful support” must last throughout the durations of projects’ useful lives to be considered meaningful. As such, a construction loan from a SEFI to a developer would not count, on its own, as meaningful support unless it were paired with a term debt refinancing option or other forms of financial support, such as SPV equity.
 - Other state entities should be encouraged to provide grant and loan support to the SPV and its project pipeline. The best way they could do this is by capitalizing revolving funds that allow them to rotate short-term lending between different projects in the pipeline. The SEFI could help other state entities set up these revolving funds.
- 4. Apply to the LPO:** The SPV, as the portfolio sponsor, applies to the LPO for debt financing and/or a loan guarantee.
- This loan request to the LPO must be, at most, 80 percent of the total portfolio size, which is the maximum amount of a portfolio’s project costs that the LPO can support. More typically, the LPO supports 50-75% of project costs.
 - The SPV will need several million dollars to cover the LPO’s application fees and due diligence expenses. These expenses can be reimbursed via loan proceeds from the LPO, but the 0.6% commitment fee cannot be reimbursed.
- 5. The LPO evaluates the SPV:** the LPO assesses the SPV’s project portfolio to evaluate (1) the degree of meaningful support, and (2) the ability of project developers to repay the SPV, which must repay the LPO.
- The LPO’s team of underwriters will conduct due diligence on all projects to assess technical feasibility and repayment capacity.
 - All projects in the pipeline must conform to certain federal rules, including but not limited to NEPA, Davis-Bacon, and Build America Buy America.
- 6. The LPO finances the SPV:** The SPV secures debt financing from the LPO and creates a fund from which developers of the projects in its portfolio can draw debt. The LPO lends to the SPV, and the SPV on-lends to developers.
- 7. The SPV ensures project development repayment:** During this process, the SPV must ensure that project developers have some guaranteed way to repay them such that the LPO faces as little credit risk as possible from lending to the SPV in the first place.
- Where renewable energy development is concerned, energy revenues and even elective payments (or tax credits, if chaining is permitted) are potential sources of repayment collateral.⁸ Where energy efficiency upgrades are concerned, bill savings and avoided costs are potential sources of repayment.

⁸ CPE is developing a formal proposal for a revolving construction bridge loan facility that, for renewable energy projects, is backed by elective pay.

- While the LPO is willing to lend to projects and portfolios that have low creditworthiness, LPO staff will take more time to underwrite the transaction and conduct due diligence.⁹

It may be possible for the SPV to ensure that payments by project developers to the SPV have seniority relative to those developers' other obligations—particularly if repayment to the SPV is backed by bill payments from electric ratepayers.

Figure 3. So long as the project pipeline is worth at least \$100m, SPVs can channel LPO debt.



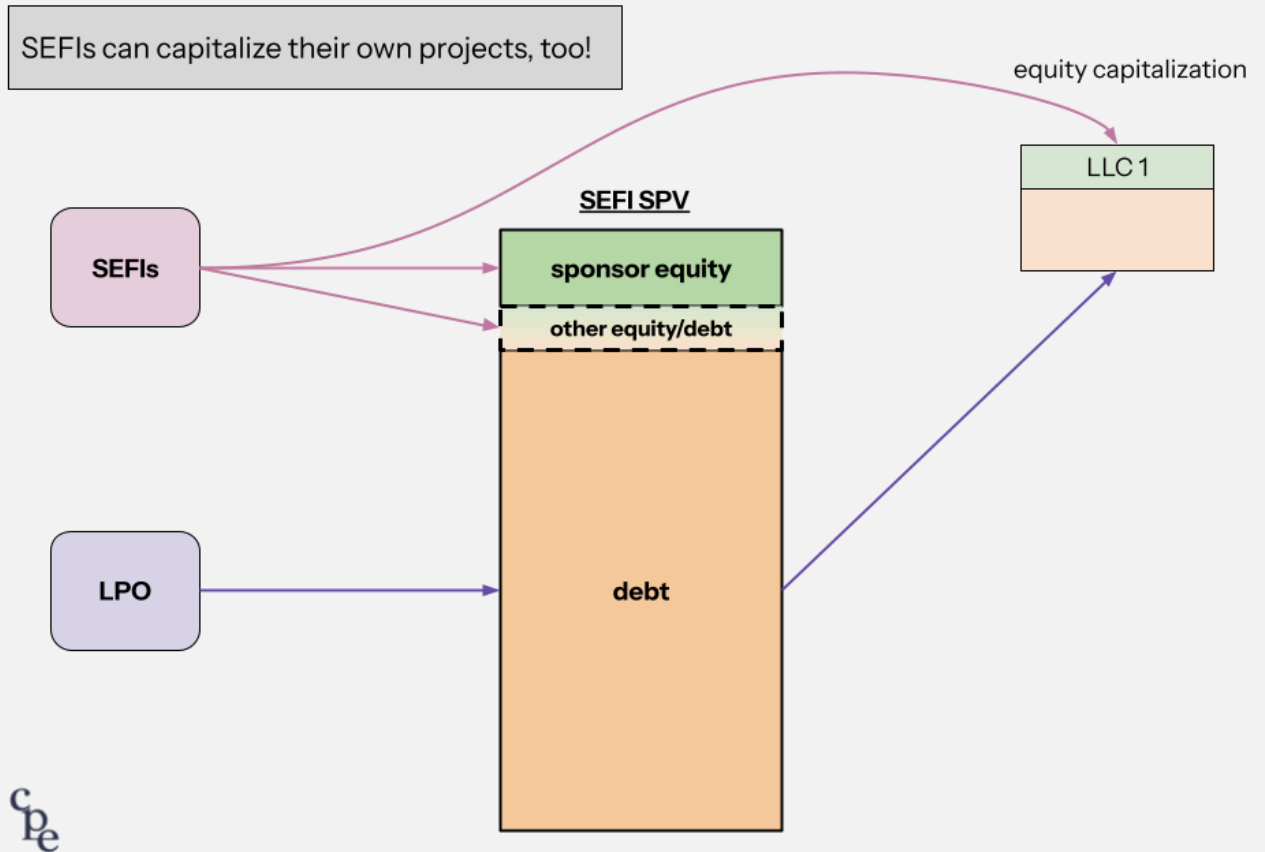
SEFIs may express interest in *owning* projects rather than simply on-lending to them, while also seeking to avoid financing projects on its own balance sheet. It could do this through the following steps.

Financing SEFI-Owned Projects:

⁹ LPO Director Shah has publicly [stressed](#) that low project creditworthiness should not dissuade developers from seeking LPO financing—he maintains that the LPO is willing to lend to less creditworthy projects. Concessional LPO debt has a larger benefit for less creditworthy projects; using the SPV structure to host a riskier project portfolio protects the credit rating of the sponsor SEFI from downgrades. The wait might well be worth the reward.

1. **Capitalize project LLCs:** The SEFI could capitalize individual project LLCs where it has a 51% equity stake or greater (to ensure ownership of these LLCs).
 - Capitalizing LLCs commits the SEFI to engaging in additional non-recourse project financing: the LLC's balance sheets would be legally separate from the SEFI's, and, if an LLC files for bankruptcy, its creditors would not have any "recourse" to the SEFI's balance sheet or other assets when seeking compensation. The SEFI's balance sheet is protected. (The LLC's balance sheets would be legally separate from the SPV created in Step 2, as well.)
 - To capitalize these LLCs, the SEFI could use its cash reserves or back-leverage them through a bond issuance, as depicted in Figure 1 above.
2. **LLCs commit to the SEFI SPV project portfolio:** As outlined in the steps above, the SEFI, or its LLCs, could create an SPV through which to secure LPO financing. The project LLCs should submit projects to the SPV's project portfolio.
3. **LLCs draw from SPV to develop projects:** When the SPV receives LPO financing, it can on-lend to the LLCs' project development efforts as agreed upon.
4. **LLCs earn elective payments:** SEFI-owned LLCs developing renewable energy projects would be eligible for elective payments once they are placed in service. The LLCs would pledge elective payments and other revenues to repay their debts to the SPV.

Figure 4. SEFIs can use their equity to capitalize their own projects, too.



IV. Risk Management

Even if the SEFI intends to engage in non-recourse project financing to develop assets in its project pipeline, it must still commit the resources on its own balance sheet to provide equity capitalization and meaningful support to the SPV and its project LLCs. As such, CPE does not believe that there is a way for a SEFI to entirely avoid using its balance sheet when supporting project development.¹⁰ This judgment is consistent with CPE’s understanding that SEFIs must take on some amount of direct project risk in order to meet the LPO’s “meaningful support” criteria for SEFI designation and access to concessional finance.

That being said, non-recourse project financing reduces the impact that this risk might have on any SEFI’s credit rating. For highly rated entities, the protections of off-balance-sheet financing might be worth slightly higher project financing costs relative to limited recourse agreements or corporate finance structures. This is where the LPO’s lending is transformative for projects: the SEFI Carveout allows states with a volume of debt they can on-lend to project developers at

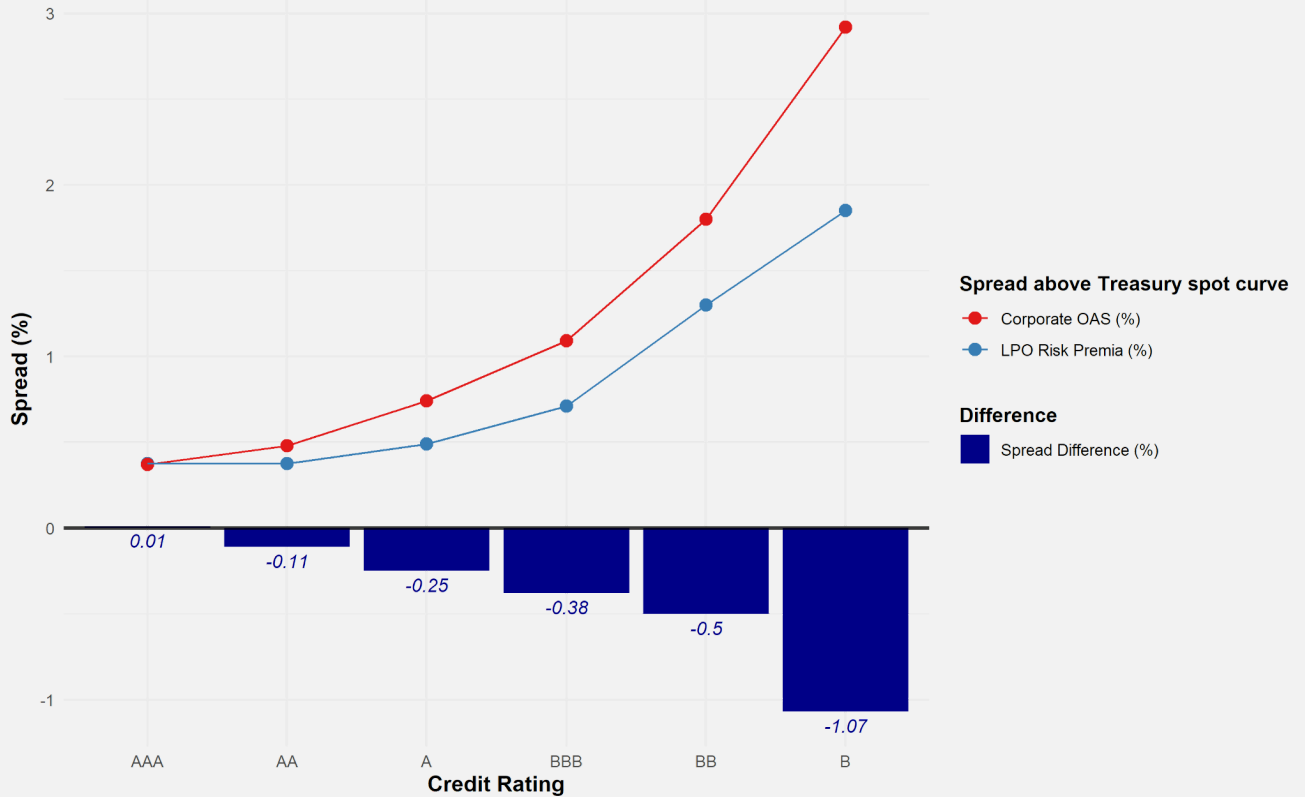
¹⁰ Additionally, CPE is confident that a SEFI’s tax-exempt status will not reduce the value of elective payments to projects the SEFI supports so long as (1) the capital stacks of those projects do not directly include tax-exempt debt and (2) sufficient domestic content safe harbors exist.

interest rates likely far more concessional than if any SEFI or developer tried to raise over \$100 million on capital markets itself. An LPO-backed project can take on far more risk than a SEFI alone might be comfortable with. This is the LPO’s business proposition: it can provide more concessional debt than any other lender—and the SEFI can pass on the benefits of this concessional debt to private and public partners.

Figure 5. Difference between corporate bond spreads and LPO risk-adjusted lending spreads.

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.

V. Regulatory Considerations

Establishing SEFI-sponsored project portfolios raises several regulatory and strategic questions requiring further analysis to better understand financial trade offs and opportunities.

Most projects supported by the LPO are also eligible for tax credit financing. Under the Inflation Reduction Act (IRA), public and tax-exempt entities are eligible to receive clean energy tax credits through elective payments from the IRS.¹¹ To receive elective pay, projects must be wholly owned by an elective pay-eligible tax-exempt entity, which must itself retain full equity

¹¹ CPE has previously described the mechanics of elective pay and built a financial model to calculate elective payments, accessible [here](#).

ownership over any energy project generating the tax credits. If elective pay-eligible project LLCs are owned by a SEFI but receive equity participation from other sources, they may not be able to receive elective payments unless they are incorporated in a certain way to avoid being treated as a “partnership LLC.” Any elective pay-eligible co-owned project structures will have to elect out of “subsection K” partnership treatment to allow any SEFI-sponsored LLC to apply for its share of elective pay credits. Alternatively, a SEFI-sponsored LLC could establish a joint operating agreement to procure electricity from an eligible property using a power purchase agreement (PPA), but these arrangements may pass some risk back onto the SEFI’s own balance sheet. Further rounds of rule-making will hopefully provide clarification. In the meantime, SEFIs will have to evaluate the tradeoffs between the value of elective pay tax credits to its LLCs, the balance sheet risks it faces from project development, and the promise of other mechanisms of tax credit monetization, such as tax credit transferability.

Another consideration in structuring the SPV is using other sources of federal financing in the capital stack. Under current “double dipping rules,” more than one federally supported financing source cannot be applied to the same project capital stack.¹² For example, an SPV cannot be financed by both Greenhouse Gas Reduction Fund-supported debt and LPO debt. However, these prohibitions may not apply if one source of federal financing is used to support equity capitalization and another source is used as debt to leverage that equity.

The LPO is yet to determine whether a direct equity injection from Greenhouse Gas Reduction Fund (GGRF) awardees would count as meaningful support. (SEFIs that are also GGRF awardees or sub-awardees may desire to use their GGRF awards to support an SPV’s equity capitalization, for example.) If this is the case, CPE judges that states and their SEFIs should explore options to use GGRF financing or other federal loan funds to “back-leverage” equity—in other words, states could use GGRF-supported lending to issue debt to SEFIs so that SEFIs can use that new financing to make an equity investment into their SPVs, rather than having states directly inject these funds into the SPV out of other federally supported funding sources.

Other considerations in structuring an SPV include how certain rights and non-tangible assets such as PPAs, Renewable Energy Credits (RECS), and tax credits are distributed between individual projects and the broader portfolio. Under some circumstances, passing these rights to the SPV can allow for more efficient project financing and cross-subsidization across the portfolio. On the other hand, these arrangements may disincentivize the participation of third party-owned projects in the portfolio, as the terms of their participation would cause them to lose out on additional sources of revenue.

VI. Immediate Use Cases for SPV Structures

It’s not hard to imagine the kinds of projects that states can aggregate into an SPV project pipeline. Many municipal governments and community organizers have long been advocating for siting solar on school roofs, retrofitting housing, building out EV charging networks, geothermal heating pilot projects, and more. Individual projects may indeed be far smaller than \$100 million—but if municipalities, organizers, and state governments can collaborate on building project pipelines alongside qualified developers, they could secure LPO financing as a

¹² This prohibition does not apply to federal tax credits.

matter of course. This section illustrates two examples of how the SEFI SPV structure can catalyze investment into critical decarbonization investments: locally, school decarbonization, and, regionally, multi-state infrastructure projects.

Solarizing Schools

Schools are ideal sites for a variety of solar and storage projects: there's lots of roof and campus space for solar arrays and batteries. Schools use a lot of energy—making the prospect of reducing power prices and utility dependence attractive to school districts looking to cut operating costs and redirect savings toward education-related spending. The same tight budgets that incentivize school districts to look for energy savings also limit their ability to install solar and storage projects themselves. These systems have high upfront costs, and require maintenance and expertise to operate.

A popular alternative is a rooftop power purchase agreement (PPA), which allows a school to buy electricity from a third party-owned system installed on its campus. But PPAs have not always benefited schools. While they remove the upfront costs of new solar and storage installations, these costs do not go away. Instead they are shifted to the third party developer, which recoups the installation costs and earns a profit through a school's electricity bill payments over the life of the PPA contract. To avoid losing money on PPAs, schools must engage in complicated negotiations over rates structures, fees, and the distribution of revenues from tax credits, RECs, and surplus generation sold into the wider electricity grid. More often than not, school districts lack the expertise to negotiate PPAs, foregoing larger savings or even losing money in the process.¹³

A dedicated public lending program focused on school decarbonization can resolve many of these problems by acting as a one-stop-shop for school districts looking to go green. The public lender can also act as a public developer, directly owning the PPA contract and solar assets or issue concessionary finance to a vetted third-party. By aggregating projects and vetting subcontractors and other third parties, the public lender can shoulder the administrative burden of evaluating PPA bill savings, or can directly administer lease public interest solar leases between it and the schools. By tapping into lower-cost financing—say, by participating in a SEFI SPV—the public developer would also reduce its upfront financing costs, thereby passing higher financial benefits to the schools. Moreover, creating a standardized, dedicated development pipeline for school projects has the potential to reduce other “soft costs” related to project acquisition, contract negotiations, and operation and maintenance expenses that make up a significant part of the total cost of installing distributed solar.¹⁴

School-sited solar systems are relatively small compared to utility-scale solar energy but, aggregated across a district, they can have quite large positive effects for schools and the wider

¹³ Laura Rigell, December, 2016. Solar Schools: Context, Lessons, and Recommendations for the Philadelphia School District, Philadelphia Energy Authority. Available at:

https://philaenergy.org/wp-content/uploads/2017/04/PEA_SolarReport.pdf; David A. Soldani, The Top Ten Mistakes Schools Make When Pursuing Solar Power Projects Atkinson, Andelson, Loya, Rudd and Romo, available at: <https://www.csba.org/-/~/media/99794FC6D4D94DDF81334A5DFFAE88CC.ashx>.

¹⁴ Eric O'Shaughnessy, Gregory F. Nemet, Jacquelyn Pless, Robert Margolis, “Addressing the soft cost challenge in U.S. small-scale solar PV system pricing,” *Energy Policy*, 134, 2019. Available at: <https://www.sciencedirect.com/science/article/abs/pii/S0301421519305439>

electricity distribution grid. For that reason, they are ideal candidates for aggregation into a portfolio of projects that can be supported by an LPO loan.

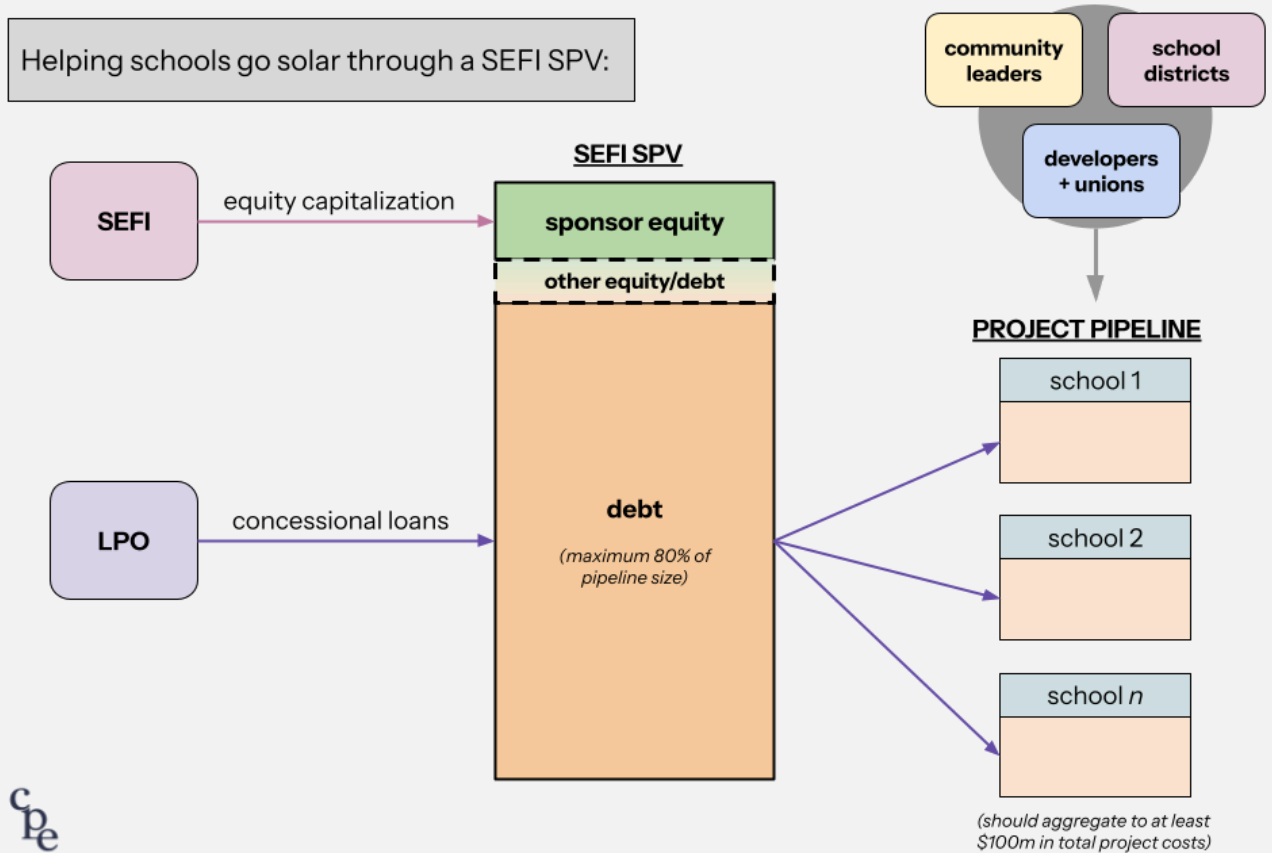
Suppose that a state green bank (a SEFI) decides to supercharge the development of school-sited solar and storage projects. Many state-sponsored or -chartered green banks already have extensive experience establishing low-cost PPA financing facilities for commercial, low-income, and nonprofit entities, making them a natural PPA operator and SEFI partner. The state green bank's school solarization program would operate as follows:

1. The green bank approaches interested school districts to co-develop and establish a project pipeline.
 - The green bank and its pre-approved subcontractors will work with districts to map school roofs and parking lots, estimate solar potential across these sites, and cost out project development. Each school site's projects will be aggregated into a project pipeline.
 - The green bank either establishes a partnership with a vetted, third-party developer/servicer to own and operate the projects or takes ownership itself through project finance LLCs.¹⁵
2. The green bank will capitalize an SPV through an injection of its equity, and this SPV will sign pre-development agreements with each participating school district, making a portfolio out of the project pipeline.
 - At this stage, the green bank can secure credit rating evaluations for SPV and the projects in its portfolio.
3. The SPV applies to the LPO for low-cost debt financing.
4. After conducting due diligence on the SPV's portfolio and underwriting its loan to the SPV, the LPO lends into the SPV structure.
5. The SPV on-lends to its participating project developers, which install solar and storage systems across the participating school districts in accordance with their pre-development agreements and with a set of pre-approved subcontractors.
6. The developers' upfront costs are repaid by school districts' PPAs via their energy bills, the monetization of tax credits via elective pay, and any RECs generated by the projects.
 - Developers can potentially enter into an agreement with third-party energy aggregators—a virtual power plant (VPP)—to optimize their collective assets to sell power into the broader electricity grid. Developers' additional revenues from VPP participation can stabilize or lower school districts' energy costs.

¹⁵ For purposes of this issue brief, we assume that project developers are third-party entities—as in, institutionally unaffiliated with the green bank. These developers could be public, non-profit, or private so long as they are institutionally unaffiliated with the green bank. This program description would change if the green bank was itself the project developer rather than just the project financier.

7. The developers repay the SPV, which repays the LPO.

Figure 6. SEFIs can work together with school districts and to build a cohesive pipeline.



A Multi-State SPV?

The LPO’s Title 17 guidance explicitly states that Title 17 financing can support multi-state projects through the SEFI Carveout, opening up countless possibilities for interstate collaboration on project development.¹⁶ SEFIs across multiple states can capitalize an SPV that aggregates a regional project pipeline—for greenfield transmission, onshore wind, offshore wind, EV charging networks, utility-scale battery projects, geothermal pilot projects, or any other technology category that the LPO is authorized to lend to, or a collection of projects that, without SEFI backing or due to project size, may not otherwise be eligible for LPO financing. Each state’s SEFI would hold equity in the SPV and exercise rights over it as if it were a partner in any other LLC or similar corporate structure.

¹⁶ The LPO’s [Title 17 guidance](#) states: “LPO loan guarantees can support multi-state projects if the qualifying SEFI allows its support to benefit aspects of the project that are not within its State. In this case, the entire multistate project may be viewed as SEFI supported and eligible for an LPO loan guarantee, regardless of whether state support is provided by those other States.”

The process of project preparation, pipeline aggregation, and debt financing for this multi-state SPV would not be fundamentally different from any of the processes described above. However, it is worth highlighting that this multi-state SPV may still require one state's SEFI to hold the sponsor equity position. Such a multi-state structure can go a long way toward providing the financial backing and coordination for ambitious regional decarbonization projects.

VII. It's up to the States

State leadership is the key that unlocks the billions of dollars in the IRA and the Bipartisan Infrastructure Law earmarked for decarbonization and adaptation. As CPE has previously [highlighted](#), the LPO is actively seeking out state-level partners that are enthusiastic about taking on the risk of supporting innovative decarbonization solutions. The incentives built into these federal climate laws, of which the SEFI Carveout is perhaps the best example, should push state governments and their agencies and instrumentalities to be innovators in public policy—and to be active investors in their economies. In other words, the federal government is challenging states to play their traditional role as “laboratories of democracy.”

The challenges of tackling climate change require states to understand how private sector entities approach development, and to use that understanding to derive maximum benefit from federal programs. States are already doing the work to assess the needs of their communities and identifying the kinds of solutions that best serve them. Capitalizing and operating a project finance SPV with the support of the LPO puts states in the driver's seat of actually deploying these solutions quickly and at scale.

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