ISSUE BRIEF: GREENHOUSE GAS REDUCTION FUND

Mobilizing federal investments in climate solutions

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Background

The Greenhouse Gas Reduction Fund (GGRF) is the culmination of years of advocacy for a national green bank. Although the Inflation Reduction Act does not create a single national green bank, it appropriates funds that can be distributed to a range of recipients, including two to three national green banking institutions. At $27 billion, it is the largest single program we track on the Climate Program Portal excluding tax credits, making it one of the most consequential climate programs ever established by the U.S. federal government.

The recipients of GGRF grants will be determined over the next year. The program is being administered by the Environmental Protection Agency (EPA) and run by Jahi Wise, the Coalition for Green Capital's former policy director, who started at the EPA in December 2022. Late last year, the EPA opened public comment to solicit feedback on program design (the RFI closed December 2022) and in April 2023, the EPA released the program's implementation plan. Three grant competitions (further detailed below) are expected to open this summer and close later this fall. Awarded funding will be announced in the following months. As the GGRF gets underway, we can learn a lot about the potential impact of these funds based on the existing landscape of U.S. green banks.

How Do Green Banks Work?

What is a green bank?

Green banks are mission-driven financial institutions that support the financing of "green" projects. Because green bank funds are typically distributed as loans, not grants, they also 'recycle' as projects are paid off, and can be reinvested, making them sustainable engines of green investment. Their primary purpose is to fill funding gaps and finance projects that would otherwise fail to get off the ground, with an overarching aim to spur the investments necessary to meet climate goals, many of which are difficult to finance with traditional lenders. Projects are typically too expensive to implement without a loan and can take more than 10 years to become profitable. This lengthy return on investment can make projects too risky for traditional lenders, whereas mission-oriented green banks are willing to take on these risks.

For green technology without a proven track-record of success, their novelty may create uncertainty around eventual profitability or savings, keeping traditional lenders from financing a project. Green banks step in to fund projects themselves, and/or encourage other lenders to fund projects by shouldering these risks. In some cases, green banks also help facilitate projects and navigate funding support sources like tax credits, renewable energy credits, rebates, and grants. Green banks also often coordinate community engagement efforts and build financing partnerships to ensure low-income, disadvantaged, and underserved communities have access to climate solutions.

In the process of financing projects and shielding other lenders from risks to their return on investment, green banks are able to leverage public funds to expand private investment in climate solutions, amplifying the total investment significantly. According to the Coalition for Green Capital, in the last decade, $4.2 billion in public capital from green banks prompted $10.66 billion in private co-investment, signaling the potential for green banks to double or triple public dollars.

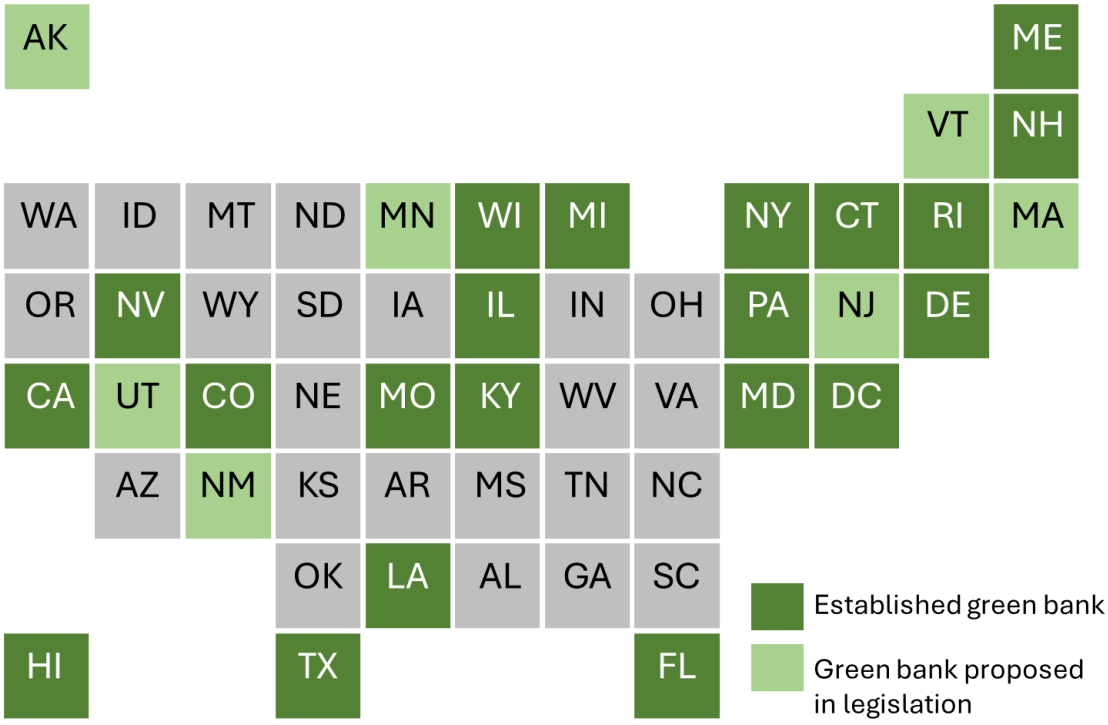
What constitutes a "green" project?

Generally, green projects aim to reduce greenhouse gas (GHG) emissions that cause climate change. To date, green banks have mostly invested in clean energy and energy efficiency projects, typically serving residential and commercial customers looking to finance projects like rooftop solar, battery storage, building energy efficiency upgrades, and electric vehicles and charging infrastructure. Other types of projects a green bank might support include community solar, offshore wind, and anaerobic digestion (organic waste processing technology).

The kind of project a green bank will fund depends on their model, mandates from their source of funding, and the needs in their region. Consequently, some green banks have begun supporting climate solutions work outside of clean energy. For example, Solar Energy Loan Fund (SELF), based in Florida, has recently started financing adaptation work like home improvements that protect against hurricane damage in addition to rooftop solar. The Connecticut Green Bank has also expanded its model to include projects like land conservation, parks and recreation, agriculture, water, and recycling. California's Climate Catalyst Program has focused funds on climate-smart agriculture and forest biomass management. Additionally, their clean energy projects focused on building transmission infrastructure rather than residential rooftop solar.

What green banks exist in the U.S. today?

Figure 1: The existing green bank network spans about half of the U.S.

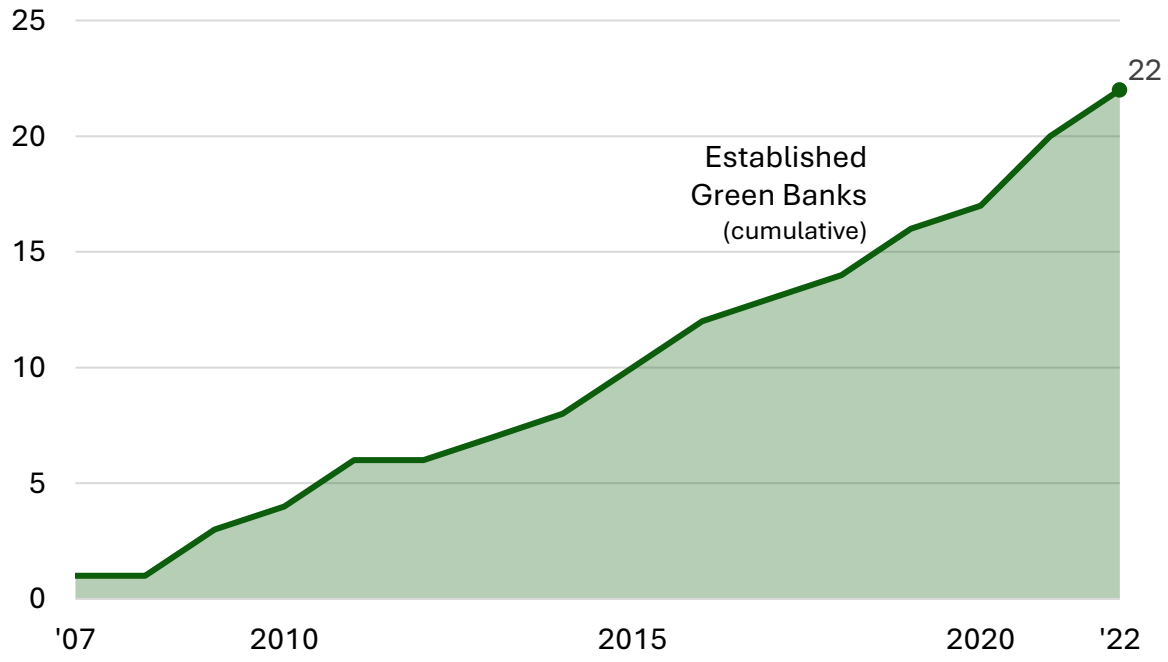


Established green banks include state-sponsored, quasi-public agencies, and non-profit operational institutions. Green banks proposed in legislation includes states that have recently introduced legislation to create a green bank but have not yet established one. This map does not account for states that have conducted feasibility studies or other efforts to create a green bank. Some states have more than one operational green bank. Green banks that may be able to lend within multiple states have been accounted for in their primary state of residence.

Source: Atlas Public Policy analysis using green bank data from the Coalition for Green Capital, ClimateXChange, and original research, 2023.

While the U.S. does not currently have a national green bank, there over 20 subnational green banking institutions across 20 states and Washington D.C. The Connecticut Green Bank (established in 2011) and the New York Green Bank (established in 2013) were the first of their kind. Since then, dozens of institutions have formed across the country. Many green banks have been operational for a decade or more, but interest in forming green banks has increased in recent years as efforts to establish a national green bank picked up steam and resulted in the Inflation Reduction Act's GGRF. Since 2021, at least 13 states have formed or introduced legislation to form a green bank.

Figure 2. The number of subnational green banks has steadily risen over the last decade.



This total includes established state-sponsored, quasi-public, and non-profit green banks. Excludes green banks proposed in legislation but not yet created.

Source: Atlas Public Policy analysis using green bank data from the Coalition for Green Capital, ClimateXChange, green bank annual reports, and original research, 2023.

Green banks can be the sole funder of green projects, but often partner with other financing institutions like traditional banks, local credit unions, and Community Development Financial Institutions (CDFIs) to support projects. While the existing network of green banks in the U.S. covers just under half of U.S. states, the thousands of credit unions nationwide and the over 1,300 certified CDFIs nationwide, including about 70 certified Native CDFIs, have the potential to provide a strong basis for partnerships with green banks. Although many of these institutions typically do not focus on green financing, they often have the relationships with local communities necessary to bolster credibility and trust with relatively new organizations like green banks. Green banks can contribute subject area expertise and experience funding climate projects, making the organizations powerful partners in this work.

How are green banks established?

Subnational green banks are established in a few ways. Many are state-sponsored and created by state legislation, while others are formed as quasi-public agencies or independent

non-profits. A good example of the state-sponsored model is the New York Green Bank, which was established in 2013 by the state of New York. Other states have opted to expand the capacity of existing public infrastructure financing institutions to function as their green bank, tapping existing technical expertise to tackle gaps in green investment. California's Infrastructure and Economic Development Bank's Climate Catalyst Program, Illinois' Finance Authority's Climate Bank, and the Rhode Island Infrastructure Bank are all examples of this. Quasi-public green banks like the Connecticut Green Bank, which was established by the Connecticut General Assembly in 2011, are also created by state legislatures and guided by state climate goals but operate separately from government under supervision by a board of public officials. Green banks that started and operate as independent non-profits, may nonetheless receive public funds, like Michigan Saves and the Colorado Clean Energy Fund.

What states are considering developing green banks?

In recent years, states have crafted legislation with the aim of creating their own green banks including:

- **Alaska** - In April 2021, Governor Mike Dunleavy introduced the "Alaska Energy Independence Act" in an effort to create the Alaska Energy Independence Fund. Subsequently, in April 2023, the Governor introduced SB 125, which would establish the fund by allowing the Alaska Housing Finance Corporation (AHFC) to create a nonprofit subsidiary.
- **Massachusetts** – In March 2023, Massachusetts introduced HB 3774 and SB 675, which would establish a state Climate Bank.
- **Minnesota** – Earlier this year, Minnesota renewed a push to establish a green bank. Current legislation proposed standing up a non-profit bank with $20 million in preliminary funds.
- **New Jersey** – New Jersey introduced AB A5255 in their 2022-23 legislative session, which would establish a green bank with $50 million in initial state funding.
- **New Mexico** – At the beginning of the 2023 legislative session, New Mexico introduced SB 169: Climate Investment Center and Fund, to establish a non-profit green bank with $20 million in seed funding.
- **Utah** - In January 2021, Utah introduced H.B. 263 Utah Clean Energy Fund to start a green bank with $1 million in seed funding. The bill was reintroduced in March 2022.
- **Vermont** – At the start of 2023, Vermont introduced legislation to create a Climate Infrastructure Fund that will collaborate with state finance entities to achieve climate goals.

How are green banks funded?

existing green banks have been capitalized by public funds allocated by their state government. For example, the New York Green Bank was created with $1 billion in public funds to invest towards the state's clean energy goals, making it the largest green bank in the country. The Colorado Clean Energy Fund received $30 million in seed capital from the state of Colorado. In some instances, green banks have also raised funds from foundations and private investors. Long-term, the goal is for the public dollars that are invested in projects to recycle, and grow modestly with interest, to be re-invested in clean energy products, making green banks self-sustaining.

Still, many green banks struggle to raise enough capital to meet the demand for project financing. Securing state contributions to green banks can be particularly difficult in times of budget cuts or in states without political support for environmental spending. Consequently, advocates are hopeful that a national green bank and an influx of federal funding will fill capitalization gaps left by the currently incomplete network of state and local green lenders.

How do green banks mitigate risk?

Before giving a loan for a project, a lender wants assurances they will recoup their investment. The novelty of some green projects, coupled with the timeframe it takes for them to generate enough returns to cover their costs and/or the credit of the borrower, can make them 'risky,' or reduce the certainty that the lenders recoup what was lent. Green banks insulate traditional lenders from this risk using a handful of tools, including:

1. **Providing direct loans:** Green banks provide project loans, typically filling in the gap of what a traditional bank will not lend, but sometimes covering the entire project. For example, a project could be financed with 20 percent capital from a green bank, 60 percent capital from a private bank, and 20 percent equity from the recipient. Green banks can also provide subordinated debt, meaning they agree to be repaid after senior debt providers, when other lenders are unwilling to do so.
2. **Credit enhancement:** Tools like loan loss reserve funds and loan guarantees both increase the likelihood that financing provided by a traditional lender will be repaid. A loan loss reserve fund, in this case provided by a green bank, typically covers a portion of the potential losses of a project if it fails to earn a return on investment. Green banks will also guarantee project loans. This means they promise to assume the project debt if the borrower defaults.
3. **Securitization**: Green banks will also combine loans for multiple small projects into one portfolio, reducing risk and increasing the loan size. Larger, more diverse loans are more attractive to (and more likely to be funded by) traditional investors.

Where can green banks fund projects?

Where a green bank can fund projects depends on the funds they are investing. Green banks using funds from their state government typically must invest that money within state borders. However, non-profit organizations can lend outside of their state if their funding source permits it. In regions without many green banks, there are opportunities for existing organizations to serve as flagship institutions. For example, while SELF is based in Florida, they have been expanding their services in neighboring states like Georgia, Alabama, and South Carolina.

How can green banks support disadvantaged communities?

Green banks have substantial potential to support the development of clean energy technologies in disadvantaged communities. Thus far, they have had some success, but there is room to do more. Last year, roughly a quarter of green bank investments - $1.2 billion of $4.64 billion in total - were made in low-income and disadvantaged communities. Furthermore, the GGRF will need to be implemented in accordance with Justice40 goals, meaning 40 percent of its benefits must reach disadvantaged communities. In order to help meet this goal, the EPA has hosted a series of Community Roundtables in addition to the public comment period to help inform program design.

How will the GGRF Work?

Where are there gaps in green banking infrastructure?

The existing network of subnational green banks has gaps that the GGRF is poised to help fill. Some states and communities lack the staffing and expertise to finance clean energy projects. Others have created new green banking organizations or expanded the capacity of existing public finance institutions but are lacking in seed capital to get projects up and running. For green banks reliant on state funds, budget cuts or changes in state governance can dry up funding. The hope is that a federal influx of funds will help build capacity in states where it is lacking and infuse existing but uncapitalized or undercapitalized banks with new funds to kickstart the $21 billion in project backlog estimated by the members of the American Green Bank Consortium.

How much funding is there and how will it be distributed?

The EPA will hold three competitions to distribute funding:

- **$14 billion** will fund two to three national nonprofit ‘green banks’ through the **National Clean Investment Fund** competition. Eligible recipients must be designed to provide capital for and/or financially support green projects, alongside other

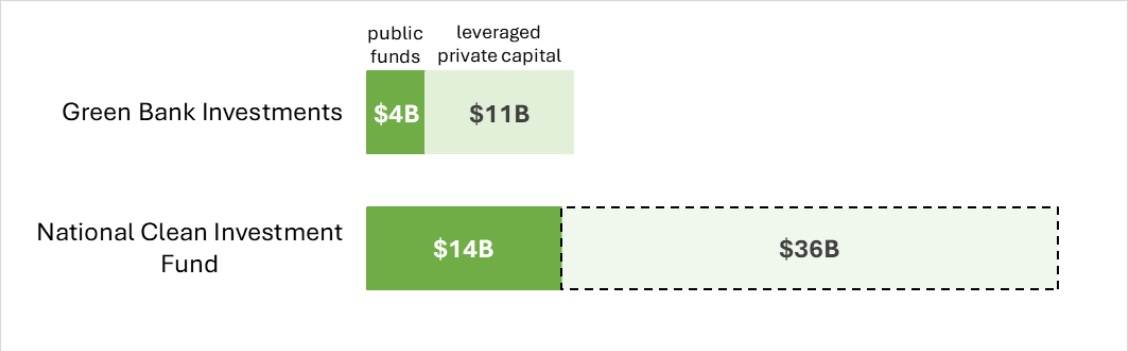
investors or alone, and be a not-for-profit organization. Existing green banks or institutions could qualify.

- **$6 billion** in the **Clean Communities Investment Accelerator** competition will be awarded to two to seven intermediary nonprofits that will use funds to build the capacity of pubic, quasi-public, and non-profit community lenders in the green financing community.
- **$7 billion** will be distributed in up to 60 grants via the **Solar for All** competition. These grants will specifically fund residential and community solar. States, Tribes, municipalities and eligible nonprofits will be eligible to receive these funds.

Each competition will be implemented in accordance with the Justice40 Initiative. Disadvantaged communities (DACs) are identified using the Council on Environmental Quality's Climate & Economic Justice Screening Tool (CEJST).

Since 2021, U.S. green banks have prompted the investment of about $3.54 in total project funding for every $1 of public funds invested. If GGRF investments follow a similar mobilization ratio of existing green bank investments in the U.S., the influx of $14 billion by the National Clean Investment Fund alone could activate over $50 billion in climate investments.

Figure 3. The GGRF could mobilize 3-4 times the initial investment.



This figure represented the potential private investments the National Clean Investment Fund could leverage if funds follow a ratio of public to private capital that matches the historic trend. This does not include investments made through the Solar for All or Clean Communities Investment Accelerator competitions.

Source: Atlas Public Policy analysis using data from the Coalition for Green Capital and GGRF program implementation plan.

What will constitute a GGRF project?

According to the EPA's implementation plan, grantees for all three competitions must "invest in projects, activities, and technologies that reduce emissions of greenhouse gases and other toxic air pollutants that harm communities and contribute to climate change."

Solar for All funds will be specifically directed to, as its name indicates, residential and community solar projects. For the National Clean Investment Fund, the EPA has identified three priority project categories including Distributed Power Generation and Storage, Decarbonization Retrofits of Existing Buildings, and Transportation Pollution Reduction.

In a survey, American Green Bank Consortium members identified solar / storage, and energy efficiency / electrification as the projects they would most likely support if they received federal funding. The members also highlighted opportunity areas most green banks are not yet addressing and could be well served by a national entity due to their cost or geographic scale, such as building transmission capacity, power grid infrastructure and storage, electric trucking infrastructure, industrial projects, small business support, and early coal plant retirement.

What are some of the concerns about the GGRF?

Given the scale of public investment made in the GGRF, many advocates have expressed concern about how funds will be dispersed. Groups like the Coalition for Green Capital have advocated that funds be used to create a single national green bank. Others, like Inclusiv and NRDC, have advocated for a more disaggregated approach, arguing for funds to be awarded to multiple entities including local development organizations like CDFIs and credit unions given their historic ties to local communities. Dozens of stakeholders have emphasized the need for prioritizing low-income and disadvantaged communities. To do so, they have advocated for distributing funds to trusted financial institutions and supporting capacity-building assistance to help community-based organizations apply for the available funds. Other organizations like the Climate Justice Alliance have highlighted the need to ensure funded projects do not lead to any unforeseen negative environmental externalities, especially in disadvantaged communities.

What comes next?

The EPA will officially begin accepting applications for the three GGRF grant competitions as early as June 2023. Until then, stakeholders have an opportunity to provide feedback on the agency's preliminary program implementation plan at public listening sessions or via written comments by May 12. The EPA expects to begin announcing awarded funds by the end of 2023 and is required to disperse those funds by September 30, 2024. Meanwhile, it is likely that states will continue developing subnational green banks, and some of the proposed legislation outlined above could come to fruition.

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