Green Banks

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Green banks[1] are public, quasi-public, or nonprofit financing entities that leverage public and private capital to pursue goals for clean energy projects that reduce emissions.[2] Generally, state and local policymakers use green banks to deliver projects that are not sufficiently met by other financial markets and to achieve desired economic development or public benefit outcomes. Green banks deploy various financial services such as credit enhancements and co-investments to leverage private capital to achieve its objectives. In some cases, green banks can offer subsidized loans at interest rates lower than typical market offerings, or they can take on risks that the market is not currently accepting by offering loans to customers who do not meet the credit requirements of other lenders. In other cases, green banks provide support to other lenders, which can either be financial or procedural, to lower barriers for these lenders in markets that are currently underserved.

By focusing on underserved market sectors, green banks can complement existing clean energy programs by targeting market gaps. They can address existing barriers that otherwise prevent the expansion of clean energy, particularly within underserved communities. Many green banks have tailored their programs to improve access to clean energy projects for low- and moderate-income (LMI) communities.[3]

Green banks generally share the following key features:

- They are mission-driven financing institutions.
- They have a mandate to advance the deployment of clean energy.
- They leverage their funds to stimulate private capital.
- They offer products across sectors and focus on bridging market gaps.

Green banks may be administered by the following entities:

- **Local or state agencies** typically use legislative authorities and public or private funding to establish green banks, although a variety of funding sources and structures may be used.[4] For example, green banks can source funding from federal, state, or private grants and bonds; or they can capitalize utility ratepayer surcharges. Legislative action by a local or state government can be used to create a new entity or repurpose existing entities in the form of a green bank. Local governments must consider if they have the legislative authority to establish a green bank or whether they can partner with an existing state-administered green bank.[5]
- **Nonprofit organizations** may be established as green banks. This process typically does not require the legislation and authorization needed to establish a green bank as a government entity.[6] Some level of government support is important, but government dependency could potentially slow the formation or limit the operating flexibility of a green bank. In recent years, the number of nonprofit green banks established by government and community counterparts has increased. Nonprofit organizations can work with both public and private funders, and can tap into new centralized pools of capital, which allow green banks to expand their activities to a larger number of participants.[7]

Examples from the Field

Connecticut Green Bank

- The Connecticut Green Bank is a quasi-public agency that leverages ratepayer funds with private capital to offer low-cost, long-term financing for clean energy projects.
- The Connecticut Green Bank was the first green bank established in the United States.[8] As of 2021, there are 21 green banks in 16 states and the District of Columbia, with $7 billion in investments since 2011.[9]
- The Connecticut Green Bank offers clean energy programs—including incentives and loans—for all sectors, such as loans for homeowners, a Commercial Property Assessed Clean Energy (C-PACE) program, multifamily energy efficiency project financing, energy service performance contracting assistance, solar services, and clean transportation.

DC Green Bank

- The Mayor of DC established the District of Columbia Green Finance Authority, or DC Green Bank, as a quasi-governmental financial institution and the first city in the United States to establish a green bank.
- The DC Green Bank offers programs such as The Commercial Loan for Energy Efficiency and Renewables Program (CLEER), a Commercial Property Assessed Clean Energy (DC-PACE) program, navigator Pre-Development Energy Loan. It also welcomes open solicitations for further ideas and partnerships.

Hawaii Green Infrastructure Authority

- The Authority is a public agency capitalized with $150 million in public funds.
- The Authority offers accessible and affordable clean energy investments and financing to deploy clean energy, especially solar photovoltaic infrastructure, and prioritizes underserved communities, including LMI homeowners, renters, and nonprofits.

Michigan Saves

- Michigan Saves is a nonprofit organization capitalized with $6.5 million from ratepayer funding through the Michigan Public Service Commission.
- The organization offers affordable financing and incentives to residential and commercial customers for clean energy projects.
- Michigan Saves partners with private sector lenders and energy providers.

Montgomery County (MD) Green Bank

- The Montgomery County Green Bank is a publicly chartered nonprofit organization capitalized with $14 million generated from a utility merger.
- The Green Bank offers technical assistance and financing to provide county residents and businesses better loan rates, terms, and credit access for clean energy projects.

New York Green Bank

- The NY Green Bank is a division of the New York State Energy Research and Development Authority (NYSERDA) that acts as a state-sponsored specialized finance entity.
- The NY Green Bank, which was initially capitalized with $165 million in public funds, provides credit enhancement, short-term lending intended for aggregation, and longer-term direct investing.
- The NY Green Bank seeks to increase green investment in New York and standardize clean energy financial products to build a secondary market.

New York City Energy Efficiency Corporation (NYCEEC)

- NYCEEC is an independent, nonprofit organization that works closely with New York City and New York state governments. The organization was endowed by New York City with $37 million in public funding.
- NYCEEC partners with lenders to improve energy efficiency financing through private capital investments.
- The organization offers a variety of loans to building owners and project developers, including those who are building or maintaining affordable housing properties.

Program Characteristics

Here are the typical characteristics of green banks.

Program types	Local or state agencies, or nonprofit entities

Target sectors	Commercial; Residential: Homeowners, Multifamily, and Renters; Public; Transportation
Potential funding sources	Bonds, public funds, ratepayer funds, philanthropy
Security required of borrower	Determined by lender and program
Repayment mechanism	Monthly or quarterly loan payment
Funding needs	Typically, sponsors must provide a high level of upfront funding to make the program successful for many participants
Enabling legislation requirement	May be required

Reaching Underserved Communities and Addressing Consumer Protections

While the financing mechanisms covered in this *Clean Energy Financing Toolkit for Decisionmakers* can provide specific benefits (e.g., lower energy bills, upgraded equipment, improved comfort) to underserved communities, including LMI households, these financing mechanisms could place LMI households at an increased risk if adequate consumer protections are not in place. This is because additional debt could overly burden LMI households and programs could disadvantage households if they face penalties for failing to repay program funds, including losing their homes, having their power shut off, and receiving negative credit ratings. Decisionmakers can implement consumer protection frameworks to address these concerns, including increasing awareness, analyzing the applicant's ability to pay, requiring disclosure of financing costs, and implementing protocols to address predatory lending.

When developing a financing program, considering the needs of underserved communities early in the process can help decisionmakers create a comprehensive financing program and incorporate consumer protections. Decisionmakers can evaluate how and to what extent marginalized communities and considerations of equity have been included in the policymaking process for developing a financing program by considering the following questions:[10]

- Have marginalized communities participated meaningfully in the policymaking process?
- Does the policy help address the impacts of inequality or inequity, or does it widen existing disparities?
- What are the barriers to more equitable outcomes?
- How will the policy increase or decrease economic, social, and health benefits for marginalized communities?
- Does the policy make energy more accessible and affordable to marginalized communities?

Green banks may offer financing that helps overcome high initial project costs for underserved markets such as multifamily buildings in LMI communities. Green banks may also partner with Community Development Financial Institutions (CDFIs) to invest in clean energy in affordable housing communities. For example, the Connecticut Green Bank, in collaboration with Inclusive Prosperity Capital, has provided funding to a local CDFI, Capital for Change, to finance its Low-Income Multifamily Energy (LIME) Loan program.[11] Green banks may develop underwriting processes that can make lending more available to LMI households (e.g., in lieu of a credit card check, green banks may be able to rely on bill repayment history, which can help those without sufficient credit).

Roles and Responsibilities

Launching a green bank requires a funding source (e.g., ratepayer funding, carbon trading revenues, energy certificate sales, or legal settlements) to ensure financial sustainability, and many green banks are initially capitalized with a dedicated funding stream, as opposed to a grant, for a period of time to ensure their success. Decisionmakers should determine the sectors and technologies that will be eligible for funding. They will also need to determine organizational and governing structure, hire staff, and create organizational processes, including procedures for the issuance and collection of funds. In addition, states may need legislation to establish a green bank. Finally, decisionmakers should develop metrics and implement review methods to analyze program success.

If a state or nonprofit develops the green bank, local governments' key role would be to help generate awareness about the bank and develop outreach plans to market the bank's financial products. Local governments may use its role as a convener to pull in key stakeholders that are interested in utilizing green bank resources, such clean energy contractors, community organizations, and local CDFIs.

Utilities may have a role in providing capital for the green banks through ratepayer funding directed by statute or regulation. Utilities may also promote the green bank's financial products to their customers.

Getting Started

State and local decisionmakers should consider these steps and best practices during the design, approval, and management of a green bank:

- Create an action plan with organizational goals, priorities, and constraints (e.g., fiscal, staffing).
- Determine whether legislation is needed to establish a green bank.
- Engage with key stakeholders to inform the development of the green bank and its policies, programs, and regulations.
- Implement robust consumer protections.
- Establish a sufficient source of sustainable funding to operate at scale.
- Determine eligible technologies, project types, sectors, and appropriate financing terms.
- Develop an initial program budget, including the funding necessary to capitalize the bank, costs for administration, and lending criteria and processes that will be used to evaluate and award funding based on program goals and financing needs in the target sectors.

- Determine an organizational structure including staffing, leadership (e.g., whether establishing a governing board is necessary), and the partnerships needed to ensure proper governance (government-based, nonprofit organization, or another structure).
- Weigh the program's potential economic and environmental benefits against its costs and adapt planning as needed. Evaluate potential losses in capital due to poorly performing projects or customers, monitor the financial markets to identify changes that make projects or loans less attractive, and adapt lending and repayment plans to reduce losses.
- Create an oversight and review process to ensure the bank operates effectively.

Learn More

- Review EPA's green banking primer.
- Learn more about green banks from the National Renewable Energy Laboratory.
- Read this resource on green banks from the Rocky Mountain Institute to learn more.
- Learn from information provided through the collaborative Green Bank Network's Knowledge Center.
- Read the latest Annual Industry Report from the Green Bank Consortium to learn about the current status of the market.

References and Footnotes

[1] While the word "banks" is included in the name, green banks do not have depositories and do not provide typical banking functions. We use the term "green banks" because it has been used in several state and local programs. Programs in other states and localities may use different names but have the same role as a green bank as described here (e.g., infrastructure authority, clean energy fund, clean energy accelerator).

[2] Clean energy projects include energy efficiency upgrades, renewable energy projects (e.g., solar photovoltaic systems), clean heating technologies, battery energy storage, or electric transportation infrastructure.

[3] American Green Bank Consortium. 2020. American Green Bank Consortium's Annual Industry Report.

[4] National Renewable Energy Laboratory. 2021. Green Banks.

[5] National Renewable Energy Laboratory. 2021. Green Banks.

[6] Coalition for Green Capital. 2020. Mobilizing Finance for Clean Energy.

[7] Coalition for Green Capital. 2020. Mobilizing Finance for Clean Energy.

[8] Connecticut Green Bank. 2021. "About Us."

[9] American Green Bank Consortium. 2021. American Green Bank Consortium's Annual Industry Report.

[10] Governments, agencies, and nonprofits have developed equity lenses and frameworks to ensure that issues of race and equity are incorporated throughout policy-making processes. These questions draw from the following frameworks: Institute for Energy Justice, "Section 2 – Energy Justice Scorecard"; City of Seattle, "Racial Equity Toolkit"; and Higher Education Coordinating Commission, "Oregon Equity Lens."

[11] American Green Bank Consortium. 2021. American Green Bank Consortium's Annual Industry Report.

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