Green Financing Options

Green financing provides opportunities and benefits for customers to implement energy efficiency and/or renewable energy measures.

1) Create a way to remove the financial barriers to clean energy investments for customers who would otherwise be unable to afford them
    a) Help customers afford the high, upfront costs of the project
    b) Typically structured so the customer's repayment is less than the energy savings
2) Increase housing stability by reducing home energy costs
3) Makes clean energy investments more attractive to lenders
4) Expands clean energy access to those typically ineligible for traditional financing

Benefits of clean energy projects include reducing energy consumption and costs, increasing comfort and indoor air quality, and achieving climate goals. Green financing makes these benefits more achievable for property owners.

Block Grants

Block grants are a sum of money awarded by the federal government to either a state or a local government to fund a specific program or project. While they are supported by federal funds, block grants are administered by state and local governments. The recipient implements the programs or projects within broadly defined functions.

The U.S. Department of Energy offers the Energy Efficiency and Conservation Block Grant (EECBG) program to reduce fossil fuel emissions and total energy use and to create jobs in the transportation, building, and other sectors.

Bond Financing

Bonds are loans given to a company or a government for a fixed period of time that are repaid with interest. State and local governments typically use bonds to finance major capital outlay projects, including parks, roads, schools, prisons, and other infrastructure.

Governments chose to pay for these projects through bonds since the large upfront costs can be difficult to pay. When a government or company needs money to finance a project or maintain ongoing operations, it can issue bonds directly to investors. The bond will include the

terms of the loan, interest payments, and the payback date. The interest payment, also referred to as the “coupon”, is part of the return bondholders receive for loaning their funds to the borrower. Bonds allow several individual investors to assume the role of lender.

Commercial Property Assessed Clean Energy (C-PACE) Financing

C-PACE is an innovative way to finance clean energy and resiliency projects on commercial, multifamily, and nonprofit buildings (excluding multifamily properties with less than five dwellings). The loans are designed to be long-term (up to 20+ years) secured by a lien that has a priority status equal to a tax assessment, thus senior to a mortgage lien. By setting up a C-PACE program, a locality can enable private sector loans for 100% of total project costs by placing a special assessment lien on the property that the owner repays over time as part of his/her tax or utility bill.

Virginia joined more than 36 states and the District of Columbia in adopting C-PACE legislation in 2009 and adopting amendments in 2015. It is up to each locality to pass a C-PACE ordinance if they would like to offer a program.

The 2020 General Assembly passed legislation allowing Virginia to offer a statewide C-PACE program. A statewide program administrator will design and develop a standardized program that local governments can decide to join. Local governments will still be required to pass an enabling ordinance, which would include the parameters of the standard program. The state energy office, Virginia Energy, is in the process of developing the statewide program with an anticipated launch date of spring 2022. Virginia PACE Authority has been selected to design and administer the program.

To learn more about C-PACE and to see which localities have launched C-PACE programs, check out the VAEEC’s C-PACE webpage. Additional resources, including fact sheets, FAQs, and case studies, can be found on the Mid-Atlantic PACE Alliance’s resources page.

Energy Performance Contracts

Energy Performance Contracting (EPC) allows public entities to improve their building performance, address maintenance needs, and reduce their energy consumption - all while remaining budget neutral. EPC is available to all state agencies, localities, and public higher education institutions in the Commonwealth. It is a budget-neutral option to implement energy-saving improvements, including energy efficiency measures and solar power, without using funds from capital budgets.

The program is managed by the Virginia Department of Energy, or Virginia Energy, and the Department of General Services. Virginia Energy pre-qualifies eligible energy service

companies (ESCOs) who perform the work and provide a guaranteed level of energy savings. The guaranteed cost savings from the project typically cover the price of the equipment installed. In 2021, Virginia became the second state nationwide to reach $1B in total energy savings from an EPC program.

The Virginia Energy Efficiency Council worked with our ESCO members and Virginia Energy to update Virginia's EPC legislation. Thanks to the EPC bills passed during the 2022 General Assembly, EPC can now finance all roof repairs and full replacements, allowing public buildings to become solar-ready.

More information on EPC can be found on Virginia Energy's fact sheet and the VAEEC's webpage.

Green Banks

Green banks leverage public funding to attract private capital for green investments and clean energy projects. There is no singular model; however, a green bank can be defined as an institution leveraging limited public dollars to attract private investment in clean energy and other green projects. Eligible projects vary depending on the local context and usually include energy efficiency upgrades, renewable energy projects, and the implementation of other clean energy technologies. Funding is provided for projects either in targeted sectors or with specific customer profiles (e.g. commercial property and business owners, nonprofits, residential homeowners, government agencies, etc.). Loans, co-investment, credit enhancements, bonds, and warehousing and securitization are examples of some of the financing mechanisms green banks use.

Despite the growing demand for clean energy projects, private investors have historically perceived this as a risky market segment. Local governments can use green banks to attract more capital to this market to support investments in clean energy, which helps advance their environmental and economic priorities. Green banks use their funds to minimize the administrative burdens and risks for private investors, thus making it easier for clean energy projects to be financed by the private market. As more private investment is poured into the market, localities can use green banks to help increase the accessibility of affordable financing that is independent of external funding sources. This helps localities achieve other economic objectives like growing the local businesses that provide clean energy services and products.

Several states have green banks, and more and more local governments are exploring establishing their own green banks. Currently, there are two local green banks in the U.S., the New York City Energy Efficiency Corporation in New York City, NY and the Montgomery County Green Bank in Montgomery County, MD. D.C. passed legislation to create the third local green bank in 2018.

In 2021, Virginia passed a law (HB 1919) authorizing localities to establish local green banks to promote the investment in and provide financing for clean energy technologies. The green bank is required to be a public entity, a quasi-public entity, or a nonprofit entity. The Virginia Department of Energy, or Virginia Energy, is available to assist any local government looking to establish a green bank. They are also in the process of exploring the potential role of a statewide green bank, termed the Commonwealth Clean Energy Financing Authority, modeled after established statewide green banks. This statewide entity would complement the efforts of any locally established green banks. You can review Virginia Energy's preliminary market assessment report here.

Local governments have the flexibility to design green banks to suit their particular needs and circumstances. There are two main steps in establishing a green bank: legalization and capitalization. Legalization refers to the process of establishing a green bank and making it a legal entity through 1) using legislative action to create a new green bank, 2) establishing a green bank as a new entity within an existing institutional framework, or 3) adapting an existing entity or funding source and repurposing them in the form of a green bank. Capitalization is when a locality provides the initial funding for a green bank using private and/or public funds.

In addition to establishing a local green bank, localities can pursue green financing opportunities that meet their own needs, resources, and abilities. Local governments can work with local financing institutions to incorporate green banking features into their existing operations. They can also establish local nonprofits that attract capital for clean energy projects.

On-Bill Programs

On-bill programs finance energy efficiency and renewable energy projects through low-interest loans by using the utility bill as a method of repayment. Either a third-party lender or the utility itself will fund a customer's project, who then repays the investment through additional charges on their utility bill.

Repayments are typically made through an on-bill loan or an on-bill tariff. There are two on-bill loan programs: 1) on-bill financing where the utility is the lender, and 2) on-bill repayment where funding comes from a third-party lender and the utility is a conduit for repayment. These loans are typically non-transferable, meaning the customer must pay off the loan before selling the property. Therefore, renters are usually ineligible to participate in these programs. On-bill tariff programs add charges or rates to a utility bill and do not charge interest. Public or private funds, or a combination of both, are used to capitalize the project. Tariffs are tied to the property, not a utility account holder, so they are transferable.

On-bill programs have a proven success record in the U.S. over the past 30 years, especially for the residential and commercial sectors. In 2016, there are roughly 45 programs throughout the country. Over 230,000 loans have been made through the program by 2014, with $8,000 being the average loan amount. Using the On-bill program to finance energy efficiency projects leads

to lower energy costs, avoided costs from needing to build new power lines, avoided capacity and energy costs, and reduced pollution. According to an estimate by the American Council for an Energy-Efficient Economy, energy efficiency investments can yield between $2.5-8B in indirect and direct benefits.

Local governments can support on-bill programs in various ways.

1) Raising awareness for existing programs offered by the local utility
2) Backing a program by investing in public funds and creating a loan loss reserve fund to mitigate risks for lenders; this can be done by using tax revenue to capitalize the programs or by facilitating partnerships with private capital lenders
3) Creating legislative incentives or policy to promote on-bill programs
4) Participating in existing programs; helps legitimize the program and encourage citizens to participate

Revolving Loan Funds

Revolving loan funds (RLFs) are pools of money from which loans are made. As loans are repaid, the interest and principal payments on old loans are used to issue new loans. As long as defaults remain low, RLFs provide sources of capital that are recycled to fund projects into the future. They provide a flexible source of capital that can be combined with other conventional sources of financing. A RLF can be used as a bridge between the amount the borrower can obtain through traditional financing and the amount needed to start or sustain a project or program. They must be able to generate enough of an interest rate return to refill the fund for future loans. Since RLFs are a public investment instrument, they are expected to result in public goods- projects or programs contributing to community revitalization and economic growth.

Terms vary depending on the use of the funds; they should be fixed to the useful life of the asset being financed. Amounts vary based on how much is available when the borrower secures a sum from private lenders. Borrowers are held to the same financing requirements in loan security as traditional loans.

The initial capital to get a RLF up and running usually comes from a combination of public (local, state, federal governments) and private sources (financial institutions and philanthropic organizations). Usually, the amount acquired for the initial funding is treated like a grant; it does not need to be paid back.

Local and state governments typically use one or a combination of the following to invest initial funding into an RLF: tax set-asides, general obligation bonds, annual dues from participating municipalities, funds from the state lottery, and direct appropriations from the state legislature. The federal government is also a common source of initial funding.

According to the U.S. Department of Energy, over 30 states have RLF for energy efficiency and renewable energy upgrades. State and local governments can establish RLFs for their own, “internal” energy upgrades and for those in the private, “external” sector. Each government can chose how their RLFs will be initially funded. Sources can include treasury investments, ratepayer funds, and state bond proceeds. Terms tend to be less than 10 years, and program administrators typically set their own interest rate. Some programs create loan loss reserve funds to provide a cushion for defaults, while others require loans to be secured with additional collateral.

Simple RLFs that are directly funded with public capital do not leverage private capital. Depending on the loan term length, they generally “revolve” slowly. Therefore, these RLFs have a more limited impact in the near term compared to those that leverage a combination of public and private funds.

For energy efficiency upgrades, RLFs are a good choice for measures in the $2-10k range that cost too much for a cash or credit purchase but are not expensive enough to justify a second mortgage or equity line. Measures range from urgent equipment replacements to whole-home retrofits. For the municipal, school, university, hospital, and small business markets, RLFs are effective at providing cheaper access to credit for measures with shorter payback periods. This allows the funds to be recharged and reused quickly.

The U.S. Department of Energy has several resources available to learn more, including pros and cons, best practices, and case studies.

For more information, contact info@vaeec.org.