

STAFF REPORT ON FAIRFAX GREEN BANK UPDATE

This report summarizes a Fairfax County Green Bank Gap and Feasibility Analysis (“Analysis”) completed in June 2022 and presents a staff recommendation that the county continue toward creation of a not-for-profit clean energy financing entity to stimulate the use of energy efficiency and renewable energy technologies throughout the community.

Throughout this report, “clean energy” is used as a shorthand expression for energy efficiency, renewable energy, electrification of vehicles and buildings, and energy storage. The term “green bank” is shorthand for a clean energy financing entity, an organization that both increases access to capital for investments in clean energy technologies and uses robust educational and marketing programs to encourage adoption of the same. In all cases, a green bank is a complement to existing private financial institutions, not a competitor.

Background

On [July 28, 2020](#), the Board of Supervisors (board) adopted Fairfax Green Initiatives #2, directing staff to report on the feasibility of a ‘green bank’ for Fairfax County. After staff determined localities lacked the authority to create green banks, the board included a legislative proposal for the 2021 General Assembly session seeking that authority. [Legislation to this effect](#) was sponsored by Delegate Kory and was successful.

At its [April 27, 2021 meeting](#), the board approved \$300,000 to assess the opportunities and constraints for a green bank serving residents and businesses of Fairfax County, and how that green bank might best be structured for local community conditions. The county engaged a consulting firm, ICF, to assist staff with that assessment. The county team included staff from the Office of Environmental and Energy Coordination, the Department of Finance, the Office of the County Attorney, and the Department of Economic Initiatives. Representatives of the Department of Housing and Community Development and Fairfax Economic Development Authority were among the stakeholders interviewed.

In September 2021 the Board of Supervisors accepted a [Community Energy and Climate Action Plan \(CECAP\)](#) that established ambitious goals for energy use reduction and use of clean, renewable energy throughout the community toward a goal of carbon neutrality. Staff is creating programs to support implementation of CECAP, and a green bank can be a powerful tool to accelerate community activity toward carbon neutrality.

There is a clear nexus between establishment of a clean energy financing entity and successful implementation of CECAP. The CECAP report describes a number of strategies that tie implementation to green banks, including:

- **Strategy 1**, to “increase energy efficiency and conservation in existing buildings,” is recommended to be supported by a local green bank, financing program, or property assessed clean energy (PACE) program. Management of the existing Fairfax Commercial PACE (C-PACE) program, or a close partnership with the existing Fairfax C-PACE administrator is a possibility. Management of local C-PACE programs is an increasingly common practice among existing green banks.

- **Strategy 4**, to “increase renewable energy in the electric grid,” similarly recommends a county level green bank to support county-wide renewable energy projects and programs. Programs that help fund the installation of residential solar are offered by green banks in other areas and represents an opportunity for Fairfax County.
- **Strategy 7**, to “increase electric vehicle adoption,” mentions use of a statewide green bank to lower barriers to the use of electric vehicles. Establishment of a local or regional clean energy financing entity could also support this strategy.

The scope of work for the feasibility study focused on three primary elements, results of which are described below this summary list:

- an assessment of the size of the market in Fairfax County for clean energy technologies;
- an analysis of the gaps in the market that hinder greater adoption of clean energy technologies locally, based on local stakeholder interviews and ICF’s expertise in this field; and
- a review of the legal and organizational structures possible for a green bank in Fairfax County.

Clean Energy Market Assessment

The clean energy market assessment draws from data collected for the CECAP report, as well as industry insights by ICF. County staff provided ICF with additional data on local energy use, vehicle counts, and Fairfax County demographics. The ICF analysis focused on the addressable marketplace, which is what could be realistically targeted by a green bank based on industry averages for clean energy program adoption, such as utility programs. This addressable market is smaller than the entire technical and economically feasible market, and therefore a conservative estimate of the market.

The addressable Fairfax market is significant, totaling over \$650 million over five years. ICF modeled 21 packages of investments across four market segments: 1) Residential Energy Efficiency, 2) Electric vehicles, 3) Solar and Storage, and 4) Commercial Energy Efficiency. The greatest opportunities appear in the residential energy efficiency and electric vehicle segments, although there are substantial cost-effective opportunities in all sectors. A summary of the addressable market sizes is provided below in Figure 1. As green banks aim to leverage private capital by ratios as high as 10:1, this level of cost-effective investment implies a clean energy financing entity investment of \$65 million over five years.

Figure 1. Addressable Market Financing Potential Over Five Years

Market Segment	Financial Potential
Residential Energy Efficiency	\$ 266 million
Electric Vehicles	\$ 200 million
Solar and Storage	\$ 102 million
Commercial Energy Efficiency	\$ 83 million
Total	\$ 651 million

These measures reduce greenhouse gas emissions (GHG) by nearly 30,000 metric tons per year, with commensurate air quality benefits from reduction of local air pollution. If consistent over the long term, these investments would achieve about ten percent of the CECAP GHG reduction goal by 2040, and about 14 percent of the CECAP GHG reduction goal by 2050. The Analysis estimates this level of investment will create about 2,190 jobs per year as a result of the direct construction work and as a result of financial savings. These are all incremental savings from the intervention of a clean energy financing entity and are in addition to activity under a business-as-usual, no green bank scenario.

Gap Analysis: Stakeholder Insights

To help identify existing barriers, current opportunities, and lessons learned by others, the project team held interviews with two dozen institutional stakeholders. These stakeholders included:

- existing green banks;
- lending institutions;
- state and county agencies;
- vendors of energy efficiency and renewable energy equipment and services; and
- consulting, advisory, and certification groups.

These representatives were enthusiastic about the potential for a Fairfax Green Bank. Several common themes emerged from these discussions regarding barriers to local adoption of clean energy choices, as well as opportunities for a Fairfax green bank to emphasize. These are summarized in Figure 2 below.

Figure 2. Common insights from stakeholder interviews

Gaps and Barriers	Opportunities
<ul style="list-style-type: none"> • Large upfront costs and project prioritization • Technical and financial uncertainty • Misaligned financial incentives • Contractor constraints • Creditworthiness 	<ul style="list-style-type: none"> • Contractor Pre-qualification • Marketing and Promotion Assistance • Focus on Low- and Moderate-Income Marketplace • Focus on Multifamily Residential and Retail Commercial Marketplaces

Stakeholders noted the market is flooded with mixed messages about worthwhile investments for property owners, and that clean energy choices often compete with discretionary spending or other capital improvements. With its origin with Fairfax County government, a green bank could be a strong trusted voice to inform individuals’ decision-making.

In addition, interviewees cited customer uncertainty about some clean energy technologies and lack of confidence in vendors’ claims. A green bank can vet and pre-qualify contractors and suppliers for legitimacy and monitor performance of contractors on funded projects.

Several stakeholders noted that as Fairfax County is an affluent community, some of the greatest opportunities lie in low- and moderate-income housing, multifamily residential properties, and

the small commercial market. These markets may need assistance accessing financial capital, and a green bank can enhance credit worthiness through interest rate buy-downs, loan guarantees, and/or direct incentive payments to reduce the initial cost of a project.

For example, one strategy of potential interest to Fairfax County is to encourage the use of solar photovoltaic (PV) systems on affordable housing (or commercial properties) by providing payments in advance for 10-15 years' worth of renewable energy credits (RECs) to be produced by the solar system. This approach serves several functions: (i) it reduces the initial cost of the system for the property, (ii) it provides Fairfax County with RECs that help the county meet its own carbon reduction goal; and (iii) the solar system will reduce the monthly cost of electricity for building occupants. The initial investment in the system can also be facilitated by the green bank by working with a private lender to enhance the borrower's creditworthiness, if necessary.

Another notable feature of a 501(c)(3) organization is the ability to act as a clearinghouse of information, both technical and financial, providing customers with sound guidance on appropriate measures for investment while combining (or 'braiding') different funding streams to maximize the cost-effectiveness of their investment. For example, identifying and using a combination of Federal weatherization funds, utility rebate incentives, and innovative financing for additional efficiency measures or solar could help a property achieve deep energy and carbon reductions.

Legal and Organizational Structure

The legal path toward a Fairfax green bank is clear. Legislation (HB 1919) sponsored by Delegate Kaye Kory in the 2021 General Assembly session [provides localities with the authority](#) to establish green banks by ordinance. The four legal options for a bank, specified by that law are: 1) public entity, such as a new department of the county government; 2) a quasi-public entity, such as a Special District; 3) a non-profit organization; and 4) a depository institution.

ICF and the county staff team concluded a 501(c)(3) non-profit organization is most desirable to meet county needs. A 501(c)(3) provides a broad range of powers and flexibility yet the county can retain considerable influence over its operations.

The Analysis also considered opportunities for regional collaboration. The not-for-profit organization is most easily adaptable to multi-jurisdictional participation. A 501(c)(3) could be formed on behalf of the county but structured so that other jurisdictions could join in the future following guidance in Code of Virginia § 15.2-1300. This is an area for continued staff exploration and consideration.

Recommendations and Next Steps

A Fairfax green bank can serve as a one-stop shop for clean energy programs and increase access to financial capital in the community for greater adoption of energy efficiency, renewable energy, and electrification technologies. Staff recommends an emphasis be put on enabling participation, particularly for low- and moderate-income homeowners. Over time, a Fairfax green bank can transform the marketplace while allowing private lenders to scale and increase their volume of clean energy investments. An outcome of this approach is an organization that

works collaboratively and with existing financing providers, rather than competitively for origination and financing.

Staff believes the Montgomery County experience is a suitable model for Fairfax. A brief timeline and approximate funding levels for the Montgomery County Green Bank (MGB) is given in Figure 3 below. The most notable infusion of funds came from settlements from two utility mergers, allocated to the MGB over three years (2017-2019), but in February 2022 the Montgomery County Council voted to dedicate ten percent of the revenue from a county fuels tax to MGB operations. However, initial seed funding from the county was instrumental in the organization’s launch.

Figure 3. Summary of Montgomery County Green Bank (MGB) Evolution

Year	Event	Revenue (FY)	MGB employee count
2015	Montgomery County Act creating MCGB	n/a	n/a
2016	Green Bank incorporated as a nonprofit, pre-launch workgroup process	n/a	n/a
2017	CEO appointed	\$ 3.3 million	2
2018	First product launched (Commercial Loan for Energy Efficiency & Renewables)	\$ 3.3 million	2
2019	Funds from Exelon-PEPCO and Altagas mergers	\$18.6 million	3
2020	Launched a broad range of residential and commercial products	\$ 1.2 million	6
2021	Accelerated pace of projects, created \$17 million in active project opportunities.	\$ 1.4 million	7
2022	Law passed mandating 10% of fuel-energy tax revenue be appropriated to fund MCGB annually.	n/a	7 (+ 6 open positions)
2023	<i>First year of dedicated funding from fuels tax</i>	<i>\$17 million</i>	<i>n/a</i>

Staff recommends the Fairfax County green bank be established as a nonprofit organization and be structured to allow neighboring jurisdictions to participate if they follow appropriate guidelines. Following the Montgomery County model in Fairfax could require an initial investment of \$3 -\$5 million per year to establish a viable entity for Northern Virginia. Staff will develop a recommendation for funding and additional detail on timing in the months ahead.

Establishing a green bank and coordinating its relationship with the county will require continued staff involvement from the agencies that have participated in the green bank work thus far for legal, programmatic, and financial guidance. While no additional staff needs are envisioned for the county, the staff contributions from across multiple agencies are estimated to total one FTE per year.

Unless otherwise directed, county staff will continue predevelopment of a green bank with the financial, programmatic, and legal steps outlined below.

Financial, Programmatic, and Legal Predevelopment

1. Staff and consultants conduct additional market research and engage more stakeholders to ensure the green bank will fill the needs of the community and is adaptable to market changes.
2. Staff and consultants develop further recommendations on the design of the entity, including a mission statement, business plan, and key initial partnerships.
3. County officials make certain organizational determinations, including which county officials are *ex-officio* members of the nonprofit's board, and identify other individuals that would be most helpful to the green bank's mission by serving on the board.
4. Staff draft an ordinance to authorize the green bank specifying its organizational structure.
5. The Board of Supervisors holds a public hearing for consideration of the ordinance.
6. The Board of Supervisors adopt the ordinance.

Following adoption of the ordinance and appointment of initial green bank board members, responsibility for management and development of the green bank entity rests with that board and its staff. County staff and officials will necessarily remain engaged with the start-up to guide its development, especially in matters related to the mission and key partnerships. The county should have a support agreement with the bank that outlines any services expected to be provided by and to the green bank and specifying any specific funding arrangement or other support expected from the County. Such an agreement can provide for streamlined adoption of new program initiatives.

Staff has established relationships with several existing green banks on the East Coast, including neighboring Montgomery County, Maryland. Their experiences will inform Fairfax staff and their lessons learned can help hasten the development of a Fairfax green bank.

If you have comments or questions on this report, please contact Kambiz Agazi, Director, Office of Environmental and Energy Coordination, at (703)-324-7188 or at Kambiz.Agazi@fairfaxcounty.gov.