

GREEN BANKS IN THE UNITED STATES: 2018 Annual Industry Report



AMERICAN GREEN BANK CONSORTIUM



FOUNDATION SUPPORT



About the American Green Bank Consortium

The American Green Bank Consortium is a project of CGC. Created in 2018, the Consortium is a membership organization enabling Green Banks, capital providers, developers and other clean energy supporters to work together.

The Consortium creates value for members through services including facilitating the sharing of knowledge among Green Banks and working with capital providers to design blended clean energy investment vehicles that work at scale across the entire network of Green Banks.

For more information visit greenbankconsortium.org.

About the Coalition for Green Capital

The Coalition for Green Capital (CGC) works to establish Green Banks on the state, federal, and international levels by conducting in-depth analyses, leading fundraising and business planning efforts, and providing specialized consulting services. With CGC's leadership and technical support, Connecticut created the first state Green Bank in the U.S. with near unanimous bipartisan support. CGC then followed that with work in New York, Hawaii, California, Maryland and many other states supporting Green Bank design and implementation.

CGC is working internationally on a number of Green Bank projects, including in South Africa where CGC worked with local stakeholders to design, raise capital and ultimately launch the first Green Bank in emerging markets—the Climate Finance Facility—and supported by the Green Climate Fund. CGC works on a number of other Green Bank scoping and design projects in Latin America, Africa and Southeast Asia.

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Introduction

Though the Green Bank concept was originally proposed in 2009 and has been put into practice from Hawaii to Rhode Island since then, this report is the inaugural *Green Bank Annual Industry Report*. The timing of this report reflects both the scale of what has come before, and the opportunity ahead. The need for low-cost clean energy solutions to address climate change has never been more pressing, and Green Banks are poised to respond as more are formed, grow, and innovate across the US.

Now with nearly a decade of track-record, the Green Bank value proposition is clear. Green Banks drive clean energy investment and reduce carbon emissions. They use catalytic and innovative structures that crowd in capital from multiple sources to produce something that is greater than the Green Bank could do on its own. By using public and philanthropic funds responsibly and through market-based tools, Green Banks are driving multiples of their own investment.

But the value of a Green Bank goes beyond finance. In every location where they operate, they serve as a convener and a voice for smart climate and energy policies that favor market expansion, access, and environmental justice. Green Banks are pillars of clean energy leadership, demonstrating a core benefit of the Green Bank model – the value of institutions. If it's nobody's job to solve difficult finance challenges, or to muster collective action to influence policy in support of clean energy market expansion, then how will those critical activities get done? That is why Green Banks are so valuable for their communities, and that value goes beyond the dollars and cents of investment.

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In this report, you'll read about those dollars and cents through descriptions of new transactions undertaken by Green Banks across the country. You will learn the investment trends travelling across Green Bank financing and new technologies being deployed. You will also see how new innovations in the Green Bank business model are leading to the growth of new lean, origination-oriented Green Banks that can draw on capital, products, and know-how from their Green Bank partners. And finally, you'll learn about the launch of the American Green Bank Consortium. This is a potent new network that is primed to drive investment through commonly accessible capital and shared products, and to also for the first time harness the collective voice of Green Banks and their allies in finance, business, and the environmental movement. The Consortium aims to build a community of practice that is capable of deploying hundreds of billions of dollars of clean energy investment into all corners of the United States.

Climate change has never been so firmly at the center of the national policy and political debate. Communities across the US are looking for cost-effective solutions to address climate change. Philanthropy is looking to drive impact with their dollars, both through grants and program-related investment. Private capital providers recognize the nearly boundless investment opportunity of clean energy finance, and governments want to align themselves with solutions that create jobs and lower energy costs. Green Banks hit the mark, which is why the expansion of Green Bank activity, at the local, state and federal level, should be anticipated in the years to come.

This Annual Industry Report is a publication of the American Green Bank Consortium, a project of the Coalition for Green Capital. To join the Consortium as either a member or a supporter, visit www.greenbankconsortium.org for more information.

What is a Green Bank?

Green Banks are finance entities built to connect clean energy projects with capital in target markets. They blend commercial, public, and philanthropic capital to deliver catalytic finance solutions capable of supporting the implementation of clean energy technology that otherwise could not be built. Green Banks possess local expertise on market conditions, the policy landscape, finance actors, and development partners, and leverage that expertise to support investment. Green Banks are not depository institutions.

The goal of this greater, additive investment is to reduce GHG emissions, though the associated benefits are numerous. By using market-based solutions, Green Banks are only in the business of delivering clean energy that lowers costs for end-users. As a result, Green Banks also lower energy costs and provide low-to-moderate income households access to the clean energy transition while lowering their energy burden. Green Banks also stimulate job creation, as there is no way to install a solar panel or upgrade the efficiency of a building without putting labor on the ground in the local market.

It all began with CEDA

the Clean Energy Deployment Administration. Though the first iteration of a federal Green Bank, introduced in 2009, only passed the House of Representatives, it portended a bright future. Green Banks soon appeared on the state and local level in Michigan, Connecticut, New York, Rhode Island, Hawaii, Florida, Maryland, DC, Nevada, and Colorado. And over this time the model evolved, with public and quasi-public institutions, tapping into public, private, and philanthropic capital where it was available. The kinds of investments and target markets changed, too, always moving to the next frontier of where their innovative capital was needed. Today there are 14 Green Banks, with more in development.



Green Banks at a Glance in 2018

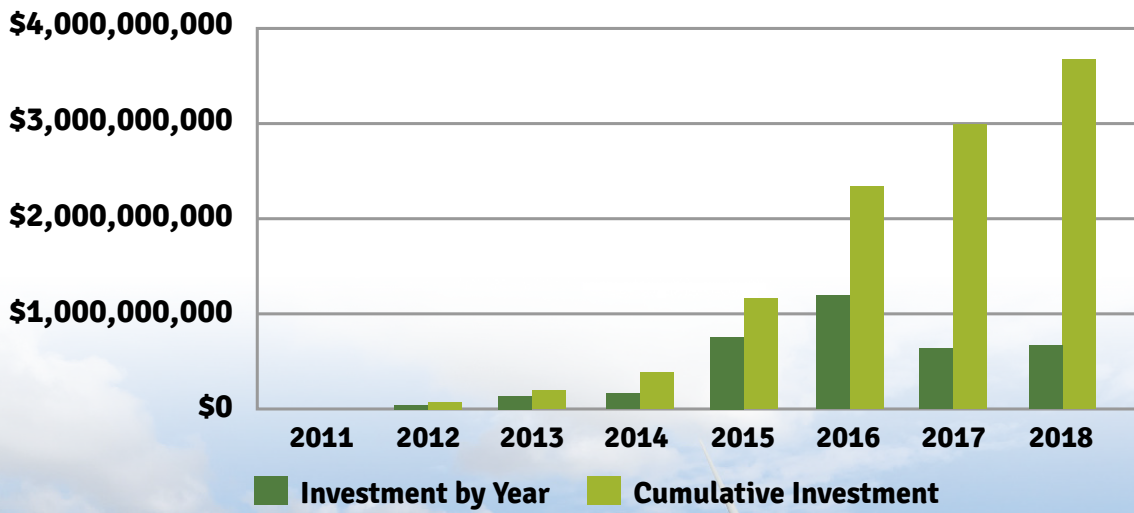
The year 2018 proved important for American Green Banks. Green Banks in the US caused \$676 million in total investment, pushing total Green Bank investment caused over \$3 billion since 2011.

While providing economic and environmental benefits, Green Banks have served as groundbreaking financial tools to leverage private investment and catalyze greater market change.

Cumulative Green Bank Impact through December 2018

Investment	\$ 3.67 b
Private Investment to Public Investment Ratio	3.4 to 1

Investment Caused by Green Banks



Organizational Trends Across Green Banks

For many years, Green Banks were presented and created as government entities funded with public dollars. Formed either by legislation or executive action or regulation, they were dependent on government for their creation, funding, and continued existence. By 2017, it became clear that these kinds of government dependencies were in many cases actually a barrier to Green Bank growth. Government support is essential, but government dependency could in some cases slow formation or limit operating flexibility. And as public coffers tightened around the country, there was very rarely a pot of public funds ready and waiting to capitalize a Green Bank.

Simultaneously, more mature Green Banks recognized an opportunity to increase the efficiency of the whole Green Bank ecosystem. Rather than reinvent the wheel and place redundant operating capacity in each and every Green Bank across the country, Green Banks are working together to build new capacity where needed while leveraging existing expertise. This could allow for more cost-effective Green Bank operation and expansion. And, importantly, a Green Bank ecosystem more oriented to collaboration and joint activity was one better positioned to raise capital at scale, from multiple sources, that could finance clean energy projects with and through the entire network of Green Banks.

These developments led to a rise in non-profit Green Banks formed in collaboration with government. These lean, origination-focused Green Banks are on the front lines in markets around the country, working with developers, investors and local actors to identify the pipeline of projects to finance. If there is local public funding all the better. But if not, these Green Banks are positioned to tap into new centralized pools of capital. And through better coordination, multiple Green Banks can use standardized or shared products to make aggregation and scaled investment even easier.

These developments have manifested in four major additions to the Green Bank landscape:

- The Connecticut Green Bank launched a non-profit spin-out, Inclusive Prosperity Capital (IPC), for the

express purpose of deploying the Connecticut products and know-how in more states. Not only does this mean ready-made solutions are available for new Green Banks to use in their markets, but it also means IPC can operate at a larger scale in a more cost-effective manner. Part of this expansion includes a new partnership with Michigan Saves, as they work with IPC to standardize and deploy nationally their loan loss reserve product to support greater lending for residential upgrades through a network of local lenders.

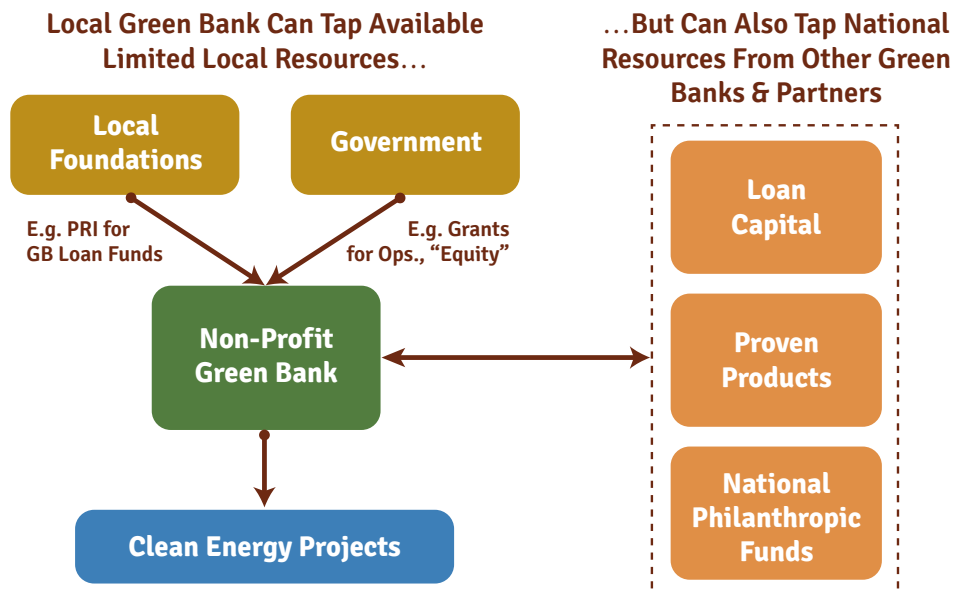
- The New York City Energy Efficiency Corporation (NYCEEC), the first local and non-profit Green Bank, shed its five-borough boundary and expanded its territory up and down the east coast. NYCEEC saw an opportunity to support investment in more geographies while also building the scale it needs to operate at greater efficiency.
- The New York Green Bank set in motion a plan to raise at \$1 billion of private capital to finance clean energy outside of New York State. The goal is to finance clean energy deployment just as it does today in New York, with an eye towards capital market transformation, but to do so across the country. This capital raise is in development and will bring capital at a unique scale to the Green Bank ecosystem.
- And finally, CGC, in partnership with Green Banks across the country and with its philanthropic supporters, has launched the new American Green Bank Consortium to act as the network, organizer, and connective tissue of the Green Bank community that was previously lacking. The new Consortium is discussed in more detail later in this report.

Taken together, these developments will take Green Banks in the US in a new direction. Lean, local and origination focused Green Banks need not hold out hope only for large local public investment. Rather, philanthropic support coupled with commercial capital and the benefits of shared activity through a network will allow Green Banks to be formed and begin investment more rapidly. More detail on the two major elements of this shift can be found below.

- Start-up activities shift:** Incorporation of an independent nonprofit that does not require legislation or even government funding allows for a much more rapid deployment of Green Banks across the US. It is critical that government remains closely connected to the project, whether through governance (board seats), financial contributions (operational funds that can be committed), or public relations (press assistance). However, it is possible to keep government involvement to this level without having to rely on some of the traditional hallmarks of Green Bank creation, such as passing legislation, that necessarily require major delays for start-up activities.
- Business model shift:** While moving away from intensive government involvement in start-up processes, Green Bank development efforts have simultaneously pursued a shift in the core Green Bank business model. Previously, Green Banks had been more oriented toward taking advantage of public capital that was designated for their use by a government or philanthropic organization and using this capital to achieve maximum leverage on public investment. As the model has evolved, the focus has shifted to tapping into larger pools of capital (either public or private) than might otherwise be available within the Green Bank’s limited jurisdiction. The organizing principle behind this shift is that Green Banks need to be built in a way that allow them to access capital at a scale beyond solely what is available on the state or local level. Stated bluntly,

Green Banks are going to be a key element of financing the transition to a clean energy economy, and as the political urgency behind this shift ramps up, Green Banks will need to be prepared to handle capital at a much larger scale than envisioned previously.

In practice, this means that Green Banks need to develop the capability to access financing from public or private capital sources from around the globe and also need to be prepared to work with renewable energy project developers through all stages of the project development process, but especially in early stage development. The Nevada Clean Energy Fund (NCEF) is an example of this type of business model shift, and the following excerpt is taken from the organization’s draft business plan: “To fulfill its mission, the NCEF will build the capabilities to identify, develop, and finance clean energy projects in Nevada. The NCEF’s focus will be on connecting projects with the appropriate sources of debt capital. The NCEF will provide value to the clean energy market by aggregating flexible sources of capital and investing resources to develop Nevada projects to the point where they are financeable. While the NCEF will not have financing capital on its balance sheets at its inception the NCEF will be structured to accept future capital from public, private, and foundation sources.” This represents a shift because it shifts the focus away from competing for limited local public and non-profit capital and focuses the organization on being able to perform its primary role of connecting projects in Nevada with capital from anywhere in the country (or world).



Technology Trends Across Green Banks

Green Banks are in the business of providing financing, directly or indirectly, to clean energy projects. As new clean energy technologies are introduced and adopted by market participants, the market for financing these clean energy technologies is often underdeveloped and illiquid. Some firms can address this need by financing the projects on their own balance sheets, however this option does not allow the technology to reach the scale necessary to achieve broad-scale commercialization of the technology in question. Green Banks can seize these opportunities by directly or indirectly offering financing for these specific types of relatively early-stage technologies. This section will look at a few examples of technologies where financing markets are relatively illiquid at the moment, and how Green Banks can step into these markets.

ENERGY STORAGE

In January of 2018, New York Governor Andrew Cuomo called for a commitment of at least \$200 million in energy storage investment to be made through NY Green Bank. Shortly thereafter, the New York Green Bank released a Request for Information focused on increasing dialogue with energy storage developers and other market participants regarding ways in which NY Green Bank could be helpful in financing energy storage projects by addressing market barriers and financing gaps that might otherwise impede project development. In October 2018, NY Green Bank released its tenth RFP, a solicitation for Community Distributed Generation Solar Projects including projects with an energy storage component.

The other main area of focus in financing for energy storage projects has come from the creation of the Nevada Clean Energy Fund (NCEF). NCEF will fill a market need in Nevada by enabling access to financing for solar photovoltaic and energy storage projects in the commercial & industrial (C&I) market sectors across the state. Solar photovoltaic and energy storage represent the best investment opportunities for both the present (solar photovoltaic) and the future (both solar photovoltaic and energy storage). NCEF was incorporated in 2018 and is nearing board approval of its business plan.

RESILIENCE MEASURES

Green Banks around the US are beginning to finance resilience measures. The Florida Solar Energy Loan Fund now offers financing for residential sustainable home renovations, with measures including hurricane shutters, impact windows and doors, roof repairs and replacements, and other home resilience measures. The Rhode Island Infrastructure Bank has hired a Director of Stormwater and Resiliency and recently launched the Municipal Resilience Program, a pilot that aims to equip municipalities with the tools and funds necessary to address the effects of climate change in Rhode Island.

Financing of renewable energy projects happens often because of a common denominator across technologies: a relatively predictable recurring cash flow resulting from the project itself. The challenge for Green Banks in financing resilience measures is often the lack of reliable revenue streams associated with the projects involved. Green Banks can become involved with resilience projects easily enough by offering to finance the generation within a microgrid or a similar energy-related proposal, but financing resilience measures without predictable cash flows associated with them is a next frontier for Green Banks in the US.

Green Banks can play a familiar role in the financing of resilience projects that have cash flows associated with them. The cleanest example of this type of Green Bank activity is financing clean electricity generation in the context of a microgrid. Many larger companies that are involved in developing microgrid projects have the ability to finance these projects on their own balance sheets or else access financing through a preferred partner financial institution. However, as microgrids become more common and smaller companies begin to involve themselves in project development, opportunities for Green Banks to step in and finance a portion or all of a microgrid project are emerging.

Financing non-recurring cash flow generating resilience projects is a more difficult proposition, but innovative business models are beginning to proliferate across the US. For example, the Florida Solar & Energy Loan Fund

has partnered with My Strong Home, a benefit corporation based out of South Carolina, to implement resilience measures on private homes. My Strong Home oversees the installation of strengthened roof upgrades and other resilience measures, which then receive a Florida-mandated financial incentive through their insurance company, known as a “wind mitigation credit.” The Florida Solar & Energy Loan Fund then finances the balance of the cost of the upgrades with a low-interest loan. This partnership

allows for Florida homeowners across the state to implement resilience measures on their homes at little to no up-front cost to the homeowner. The Climate Access Fund in Maryland is exploring ways to facilitate combined community solar-resilience projects in low-income communities. CAF would finance the community solar portion of the project, given its associated cash flows, and the battery storage portion of the project would be financed separately through a state grant.

Spotlight on 2018 Green Bank Activity

There was much to celebrate in 2018 across the Green Bank movement. Green Banks in the US caused \$676 million of total investment in clean energy projects for the year, and new initiatives were launched from coast to coast. New members were added to the community, and established members reached new milestones.

Here’s a round-up of activity from 2018 from across the country:

CLIMATE ACCESS FUND

The Climate Access Fund (CAF), incorporated as a non-profit organization in Baltimore, Maryland at the end of 2017, solidified its operations and governance, and identified its niche in Maryland’s emerging community solar market over the course of 2018. CAF was established in 2017 to increase low-income households’ access to clean energy by filling the financing gap between the state’s community solar regulations and the low-income solar marketplace with social impact capital. CAF has raised \$2.1 million in public and philanthropic grant and program-related investment capital commitments, and it anticipates closing on its first urban rooftop projects in 2019.

COLORADO CLEAN ENERGY FUND

Governor Hickenlooper announced the creation of the Colorado Clean Energy Fund (CCF) at the close of 2018. The organization will begin operations in 2019 and is working with the Coalition for Green Capital to complete

necessary start-up activities, such as mobilizing operating capital, forming its governance structure, and developing and launching its introductory product line(s).

CONNECTICUT GREEN BANK

Fresh off of its Innovations in American Government Award in 2017, presented by the Harvard Kennedy School’s Ash Center for Democratic Governance and Innovation and with 5.2m tons of lifetime CO2 reductions under its belt, the Connecticut Green Bank (CGB) made progress in 2018 in spite of headwinds arising from the state’s budgeting process. In Fiscal Year 2018 (FY18), the CGB used \$33.6m in public dollars to attract more than \$232.2m in private investment. The CGB expanded its nationally-celebrated C-PACE program to include financing for new construction. The C-PACE program also celebrated the completion of 200 projects across the State of Connecticut, and by the end of the fiscal year had surpassed \$127.2m in clean energy investments in Connecticut’s businesses. The CGB also won the State Leadership in Clean Energy award from the Clean Energy States Alliance (CESA), awarded in recognition of the CGB’s Solar for All partnership. The Solar for All partnership between the CGB and PosiGen is a public-private partnership that offers LMI customers in Connecticut a solar lease paired with energy efficiency measures, regardless of income or traditional measures of creditworthiness. Since the partnership launched, solar penetration in Connecticut’s low-income communities has increased, moving Connecticut not only to a parity state (i.e., LMI households proportionally demanding solar PV the same as non-LMI households), but to “beyond parity.” Also in the residen-

tial sector, the Smart-E program had its most successful year in terms of loans closed and total dollars invested, with \$4.2m in CGB investment leveraging private capital surpassing \$30.1m.

DC GREEN BANK

On July 10, 2018, Mayor Bowser established the District of Columbia Green Finance Authority, or DC Green Bank, as a quasi-governmental financial institution. The DC Green Bank will leverage public capital to increase and accelerate private investment to help the District meet its Clean Energy DC goals. In addition to managing the DC Property Assessed Clean Energy (PACE) program, the DC Green Bank will offer flexible funding options that lower the cost of capital for energy efficiency and clean energy projects. Although products are still in development, some examples include: a loan for single-family homeowners, a loan for commercial and multi-family properties, and gap financing for solar projects.

FLORIDA SOLAR & ENERGY FUND

The non-profit, CDFI Solar & Energy Loan Fund (SELF) had another record-breaking year in 2018, completing \$1.85 million in total lending, expanding its flagship “Rebuilding and Empowering Underserved Communities” program into 87 jurisdictions throughout Florida, developing additional loan products and programs, and opening up two (2) new satellite offices in the Gulf Coast Region (Tampa/St. Pete). SELF also achieved several major milestones in 2018, including: (1) surpassing \$8 million in total lending; (2) completing their 1,000th single-family project; (3) accomplishing \$450,000 of PACE projects; (4) raising nearly \$100,000 of worldwide crowdfunding via KIVA.org; (5) increasing its statewide contractor base to more than 300; (6) securing its first FA award from the CDFI Fund; and, (7) undertaking its largest expansion to date. SELF continues to scale its existing programs and diversify its lending products through robust partnerships with local governments, socially responsible lenders, non-profits, benefit corporations (B-Corps), earned-media, and an expanding network of licensed and insured contractors. The SELF-team also continues to encounter strong demand in low- and moderate-income (LMI) communities

for cost-effective energy retrofits, solar technologies, new roofs, windows and hurricane shutters, and other sustainable home renovations.

HAWAII GEMS

The Hawaii GEMS financing program, housed under the umbrella of the Hawaii Green Infrastructure Authority, continued to deliver financing crucial to achieving Hawaii’s mandate to reach 100% clean energy generation by 2045. GEMS had a breakthrough year in 2018, extending financing to facilitate some \$11.5m of clean energy projects across the state. The Hawaii PUC also approved the Green Energy Money Saver (GEM\$) in December. The GEM\$ program is an on-bill repayment program that utilizes non-traditional underwriting and eligibility guidelines for homeowner, renters, nonprofits and small businesses to install clean energy (both energy efficiency and solar PV) upgrades, which are then repaid by ratepayers as a fixed amount per month. Additionally, in July of 2018, Governor David Ige signed a bill that created a \$50m revolving line of credit within GEMS for the installation of cost-effective commercial energy efficiency measures at state facilities.

INCLUSIVE PROSPERITY CAPITAL

Inclusive Prosperity Capital (IPC) was incorporated as an independent, not-for-profit organization in mid-2018, and officially launched soon after focusing on the intersection of community development, clean energy finance, and climate impact. Sparked by the Connecticut Green Bank, Connecticut Department of Energy and Environmental Protection, and the Kresge Foundation, IPC is focused on scaling its work in Connecticut and expanding its successful model into other regions of the country by accessing new mission-driven capital sources and partnerships.

MARYLAND CLEAN ENERGY CENTER

Maryland Clean Energy Center (MCEC) is a corporate instrumentality of the state created in 2008 to advance the adoption of clean energy products, services, and technologies. With a focus on finance MCEC to date has leveraged resources to assist residential, commercial, institutional and not-for-profit consumers implement clean energy

generation and efficiency measures; including \$38M in tax exempt and taxable bonds issued, over \$4.4M in commercial property assessed clean energy (PACE) loans, approximately \$30M in lending to residential property owners and \$1M in direct municipal investment. In 2018, MCEC hosted the Maryland Clean Energy Summit, a regional conference assembling thought leaders in the energy and climate change sector. MCEC is located in College Park, Maryland.

MICHIGAN SAVES

Michigan Saves, the nation's first independent nonprofit green bank, saw tremendous growth in 2018. The organization surged past \$172 million in financing for energy-efficiency and renewable energy improvements and increased its residential loan and commercial loan volume by 67 percent and 30 percent, respectively. This investment was marked by another significant milestone in which the organization financed its largest-ever commercial energy improvement project at \$2.5 million. Michigan Saves has set an ambitious goal to finance \$1 billion in green financing by 2023 and is committed to creating a clean energy landscape that all Michiganders can participate in.

MONTGOMERY COUNTY GREEN BANK

The Montgomery County Green Bank (MCGB), capitalized with \$14.1 million in funding from settlements funds from the Exelon-Pepco Merger, launched its first program in 2018, the Commercial Loan for Energy Efficiency and Renewables (CLEER), a loan-loss reserve product that gives commercial and industrial property owners (including multifamily, nonprofits, and common ownership) in the County the opportunity to access affordable financing for clean energy and energy efficiency upgrades. The first two lending partners of the program are making \$20 million in loan capital available under the program.

NEVADA CLEAN ENERGY FUND

The Nevada Clean Energy Fund (NCEF) took its first steps toward operation in 2018. The NCEF is the nation's first Green Bank that was created by a Republican governor in the US, Governor Brian Sandoval. The NCEF has been incorporated, received 501c3 status from the IRS, created

foundational governance documents, established an online presence, obtained pro bono legal representation, created a business plan, and submitted a \$500,000 funding request to the state legislature for early operations.

NEW YORK CITY ENERGY EFFICIENCY CORPORATION

In 2018, NYCEEC achieved a major milestone – its financing impact grew to over \$150 million in clean energy and energy efficiency investments, with over 10 percent of its portfolio now outside of New York. This past year NYCEEC financed a wide range of projects including building energy efficiency, lighting-as-a-service, fuel conversions, and cogeneration. NYCEEC continued its commitment to affordable housing in 2018, adding to the over 5,300 units of affordable housing greened to date with its financing. NYCEEC is also partnered with the City of New York to assist in designing a PACE program, now permitted through recently-enacted legislation, and was designated as NYC's PACE administrator. In 2018, NYCEEC also became a qualified PACE lender in the State of New York. Over the last year, NYCEEC has grown the number of financial institutions with which it has partnered in funding projects to nine, and it has also assisted other local green banks in their formation and initial operations. Based in NYC, NYCEEC is a 501(c)(3) lender that provides loans for energy efficiency and clean energy projects in eight northeastern states, plus the District of Columbia, across all building types and neighborhoods.

NEW YORK GREEN BANK

As of the end of the 2018 calendar year, NY Green Bank had received over \$3.1b in investment proposals and made \$638m in investments to support clean energy projects with a total project cost of up to \$1.75b in New York State. Those investments in solar, community solar, energy efficiency, and clean transportation contributed to estimated gross lifetime GHG reductions of between 8.3 and 10.3 million metric tons, equivalent to removing up to 97,700 cars from the road for 24 years. Above these numbers, NY Green Bank closed out 2018 with an active pipeline of projects totaling \$574m and undertook a broad range of origination activities including issuing targeted solicitations for many new products/proposals related to energy

storage, CDG and LMI (e.g., RFI 4: Financing Arrangements for Energy Storage Projects in New York State; RFI 5: Low to Moderate Participation in CDG Projects in NYS; and RFP 10: Financing for CDG Solar Projects including Projects Paired with Energy Storage). All this was accomplished while the organization has taken steps toward a third-party capital raise of \$1b, which will provide additional financing opportunities for clean energy projects across the US.

RHODE ISLAND INFRASTRUCTURE BANK

Rhode Island Infrastructure Bank (RIIB) issued its inaugural public-market Green Bond for the Efficient Buildings Fund in November 2018. The Bank's inaugural \$18.3 million Efficient Buildings Fund Green Bond was given a top rating of "AA" by Standard and Poor's (S&P). The Efficient Buildings Fund provides below-market interest rate loans to municipalities, school districts and quasi-state entities

to invest in clean energy projects. Since 2016, the Efficient Buildings Fund has reduced energy and maintenance costs for municipalities by approximately \$66 million dollars through investments in onshore wind, solar, LED lighting and highly efficient heating and cooling improvements. In addition to the bond rating, EBF Green Bond received the highest green rating of "E1" through an independent third party evaluation by S&P. The EBF Bond was evaluated for climate resilience and environmental impact of underlying projects and the adherence of the transaction to the Green Bond Principles. S&P's report highlighted the Bank's strong transparency and governance procedures as well as adherence to the Green Bond Principles. The Efficient Buildings Fund complements the Bank's Commercial Property Assessed Clean Energy program, which provides access to long-term capital for commercial properties to make clean energy investments. Since inception, the C-PACE program has financed \$5.8 million for 16 projects across Rhode Island.

Formation of American Green Bank Consortium

The American Green Bank Consortium gives voice to and creates value for Green Banks across the United States. The genesis of this Consortium was a series of events that brought Green Bank leaders together that yielded tremendous value for the attendees of the events. The Consortium was built to harness this potential ongoing value creation in one place, offering planned convenings, working groups, industry reports, advocacy, communications assistance, research assistance, deals for members, mentoring support, and more.

The American Green Bank Consortium was launched in January of 2019, with the following founding members:

- Baltimore Climate Access Fund
- Connecticut Green Bank
- Florida Solar & Energy Loan Fund
- Hawaii Green Infrastructure Authority/GEMS
- Inclusive Prosperity Capital
- Maryland Clean Energy Center
- Michigan Saves

- Montgomery County Green Bank
- New York City Energy Efficiency Corporation
- Nevada Clean Energy Fund
- Rhode Island Infrastructure Bank

In March of 2019, two additional new members joined the Consortium:

- Colorado Clean Energy Fund
- DC Department of Energy and Environment

All of these members are nonprofit finance institutions, dedicated to maximizing investment in clean energy projects in their jurisdiction. A number of different Green Bank creation initiatives are in various stages of development across the United States, and the Consortium will expand its membership as these organizations are brought online.

Look Ahead at Green Bank Activity in 2019

Green Banks across the US are moving ahead with ambitious plans to increase their impact in markets where they are already active while also expanding into new markets and sectors. In particular, low to moderate income (LMI) programs and products are beginning to take hold at Green Banks all over the map. In New York, the New York City Energy Efficiency Corporation (NYCEEC) is rewriting its strategic plan, with a particular focus on LMI. Inclusive Prosperity Capital (IPC), which is the recently formed spin-off of the Connecticut Green Bank, is partnering with Posigen and LibreMax Capital to offer a \$90 million, three-year credit facility that will support clean energy installations in LMI areas. Michigan Saves, Michigan's Green Bank, received a four-year commitment from a Michigan utility to launch a revolving loan fund for clean energy upgrades for LMI residents. Maryland's Climate Access Fund is dedicated exclusively to increasing LMI access to clean energy technologies, with a current focus on community solar.

Hawaii's GEMS financing program, run by the Hawaii Green Infrastructure Authority, is looking to place a greater focus on LMI projects. The Montgomery County Green Bank received an additional \$11 million investment from the County to conduct additional energy efficiency and renewable energy programs to support nonprofits, affordable housing, and municipal buildings.

Beyond specific areas of policy focus, Green Banks will continue to deliver on their mission of maximizing investment in clean energy projects across the United States. Additionally, more Green Banks will look for ways to achieve their missions while operating in a financially self-sustaining way, following the lead of the New York Green Bank, which reported enough operating revenue to post a positive net income in 2017 – a full year ahead of schedule. From Hawaii to Rhode Island, Green Banks will continue to find new and innovative methods to tackle the most pressing energy needs in their communities.

Appendix: Methodology

The Green Bank impacts presented in this report are the result of information gathering performed by CGC. Key metrics were collected from the public reports issued by each Green Bank as well as direct information provided to CGC by various Green Banks upon request. When information in the various reports was in conflict from year to year, the most recent report's number was used (e.g. if the 2017 annual report had a higher total investment for the year than the 2018 report, the 2018 report number was used). When numbers were presented as ranges (e.g. overall investments ranged between \$1.4–1.6 billion), CGC used the lowest number to keep its figures conservative. All numbers presented are

calculated over the lifetime of the project. Furthermore, each Green Bank has its own reporting methodology and therefore, totals represent the sum of estimates that may be calculated using different or conflicting assumptions. As part of this research, CGC did not investigate the individual reporting methodologies of each Green Bank but assumed that data reported using the same units (e.g. MWh, MMBtu, etc.) over a project's lifetime were fungible. Sources for Green Bank data in the report are from the Green Bank self-reporting, as well as direct press releases and other official communications from the organizations.