

GREEN BANKS IN THE UNITED STATES: **2021 U.S. Green Bank Annual Industry Report** **With Data from Calendar Year 2020**



American Green Bank Consortium

The 2020 U.S. Green Bank Annual Industry Report is produced by the American Green Bank Consortium, a project of the Coalition for Green Capital. The American Green Bank Consortium is a membership organization for green banks, capital providers, developers and other clean energy supporters to work together to expand and accelerate innovative clean energy investment across the United States.



@agbconsortium
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A Banner Year for Green Banks

2020 was the most successful year ever for green banks and the green bank model in the U.S. Despite significant uncertainties and challenges created by the Covid-19 pandemic, Green Banks achieved the following in 2020:

- Green banks drove a record amount of clean energy investment in 2020, mobilizing \$1.69 billion of total investment with \$442 million of green bank funds;
- In total, this brings cumulative green bank investment to \$7 billion using \$1.9 billion green bank funds;
- The U.S. House of Representatives twice passed federal legislation to create a national non-profit green bank called the Clean Energy and Sustainability Accelerator, once as part of an infrastructure package and then as part of an energy package;
- Nearly every presidential candidate endorsed the creation of a national green bank, including then-Senator Kamala Harris who co-sponsored the Senate national green bank legislation;
- Five new green banks joined the Consortium; and
- Government officials, local leaders, and market actors in 22 states are exploring or taking steps to form a green bank.

And now, in the first months of 2021, even more progress has been made to create a national network of well-capitalized green banks. Most importantly, President Biden expressly endorsed the creation of the Clean Energy and Sustainability Accelerator as part of his American Jobs Plan infrastructure proposal. The congressional legislation, which was reintroduced in February with a \$100 billion capitalization and requirement to invest 40% of funds in disadvantaged communities, now has bipartisan co-sponsorship in the House of Representatives. And the policy is broadly endorsed by a wide range of organizations and thought leaders. A letter of support was signed by nearly 250 businesses, capital providers, organizations, advocates, trade groups, utilities, and others. Stakeholders from all corners of the country are now working together to ensure that Congress funds a national green bank as part of its infrastructure legislation.

Green bank investment is needed now more than ever. Clean energy jobs have not fully recovered from the losses due to the pandemic, and the true number of unemployed nationally far exceeds the standard reporting. The impacts of climate change are ever more present and disruptive. The social inequity of where those impacts fall, the energy cost burden felt by low-income households, and the unequal access that many communities have to the benefits of clean energy all require focused attention and investment. Communities that have economically relied on fossil fuels face a difficult transition. With catalytic and targeted investment, green banks can drive rapid and abundant adoption of clean energy that delivers savings, jobs, new businesses and pathways to wealth creation, all while working in partnership with the private sector. For more than a decade, state and local green banks have proven what can be achieved with this model. Now is the time to take the model nationwide.

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Introduction

Green banks in the United States had another record year in 2020, despite substantial headwinds caused by the COVID-19 global pandemic. Member organizations found themselves facing what months before were previously unthinkable challenges. Safety was priority one for all of the members of the Consortium, and members took unprecedented action to ensure that their employees and the myriad of different stakeholders that green banks interact with on a daily basis remained as safe as possible.

Once members had determined how best to proceed in as safe a manner as possible, the next priority was serving their communities. Green banks worked with their customers to ensure flexibility in repayment of loans, offered guidance for contractors that work with green banks on the Paycheck Protection Program, and created dedicated relief funds that offered financial support to those residents and businesses hardest hit by the economic fallout of the crisis.

As it became clear that the crisis would grind on for a prolonged period of time, green banks turned their attention to acting as drivers of safe economic development wherever possible. It became clear by summer that demand for green bank services was increasing as opposed to decreasing, an unforeseen development. Residents and businesses turned to clean energy and energy efficiency improvements that provided energy bill savings and could be inexpensively financed through green banks as a source of economic respite. This surge in demand is reflected in the fact that green banks caused a record \$1.64 billion in total investment in 2020, despite what amounted to lost weeks early on in the pandemic.

This new urgency in demand for green bank services was reflected in Washington, DC as well. Lawmakers came to embrace the green bank model, embodied in the Clean Energy and Sustainability Accelerator that has been introduced in Congress and proposed by President Biden as part of his American Jobs Plan. The bill passed the House twice in 2020 and has been reintroduced in this latest session of Congress with a capitalization of \$100 billion. This bipartisan bill has attracted support from across the political spectrum and offers a tremendous opportunity to put Americans back to work while effectuating the transition to a clean and resilient economy that serves traditionally neglected and disadvantaged communities.



What is a Green Bank?

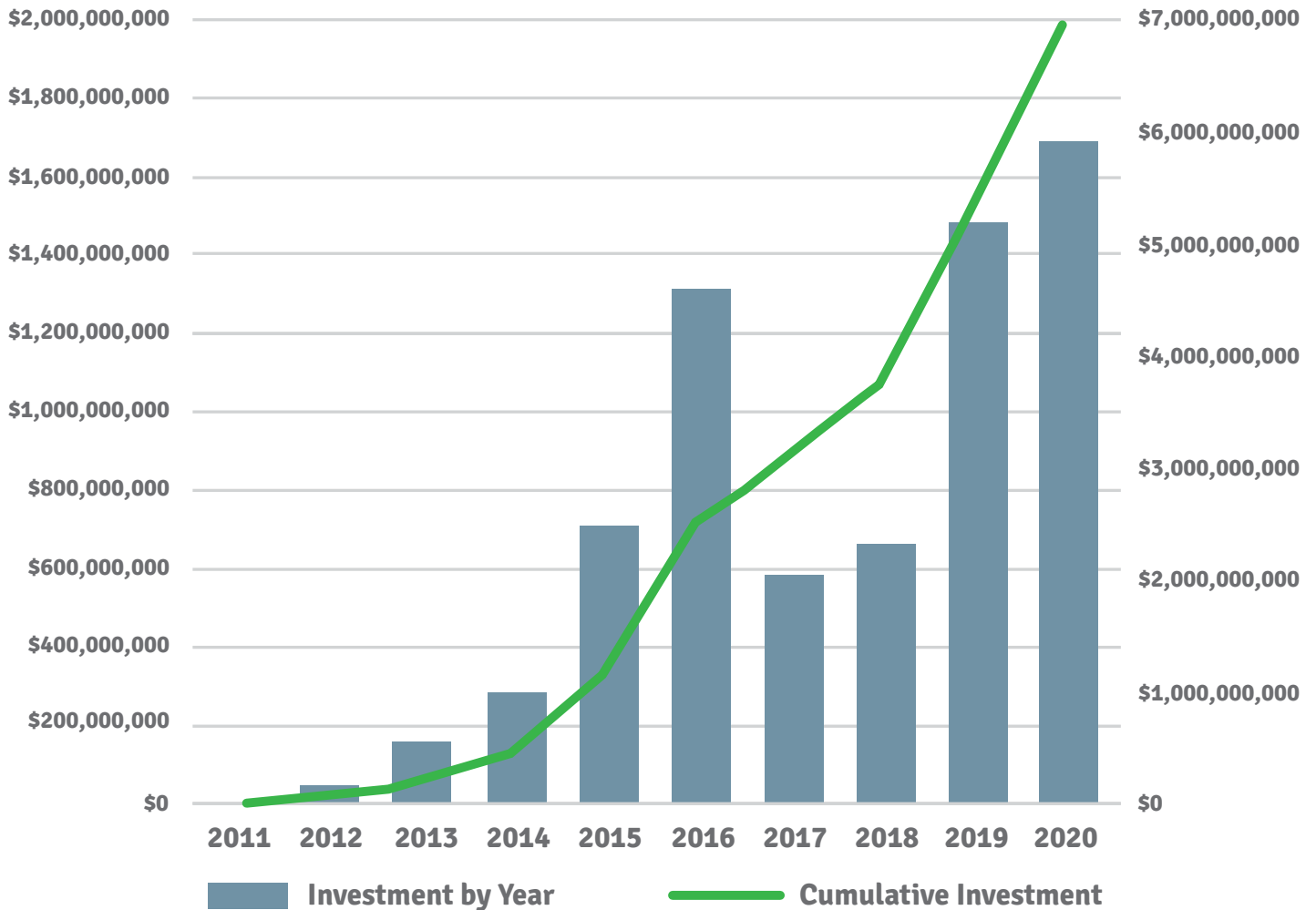
A green bank uses public capital to mobilize more private investment into underserved green and resilient financing markets to fill market gaps. Green banks have the ultimate goal of enabling private capital partners to enter clean energy markets at scale without green bank assistance.

Green Banks at a Glance in 2020

Green banks in the United States had their strongest year ever in 2020. Green banks caused \$1.69 billion in total investment, pushing green bank total investment caused to \$7 billion since 2011.

Total Investment Caused	\$7.0 b
Total Green Bank Investment	\$1.9 b
Total Private Co-investment	\$5.1 b
Mobilization Ratio (Overall Project Investment/Green Bank Investment)	3.7

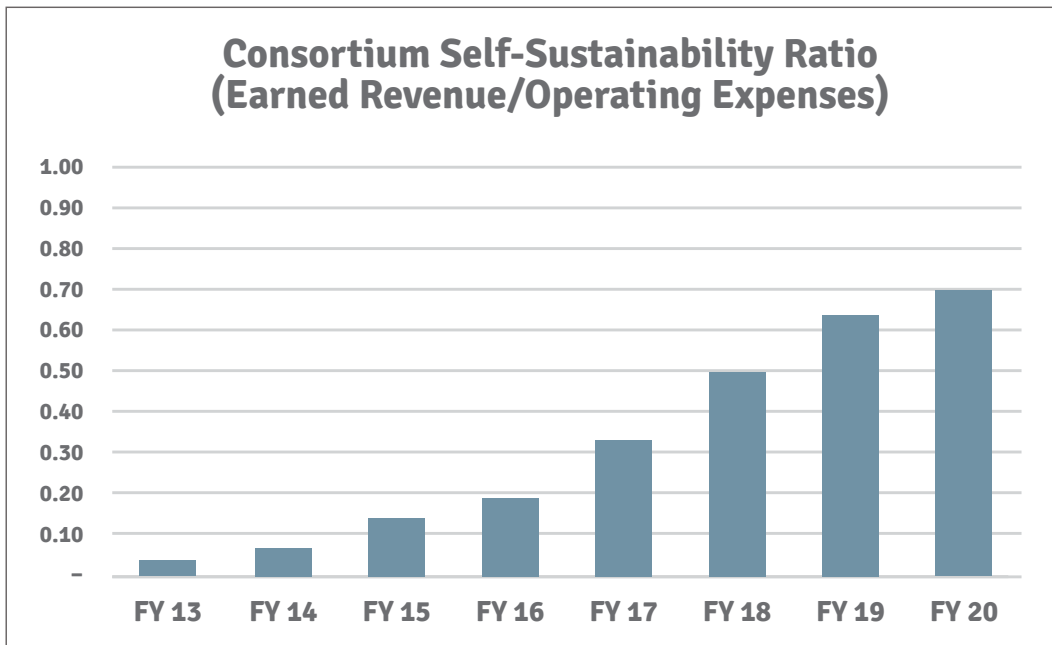
Investment Caused by Green Banks



Green Banks Earned Revenue and Self-sustainability

Green banks can function more efficiently, offer more predictability to counterparties, and maximize their leverage opportunities by demonstrating a solid measure of self-sustainability. Self-sustainability means that operating expenses are to a large degree covered

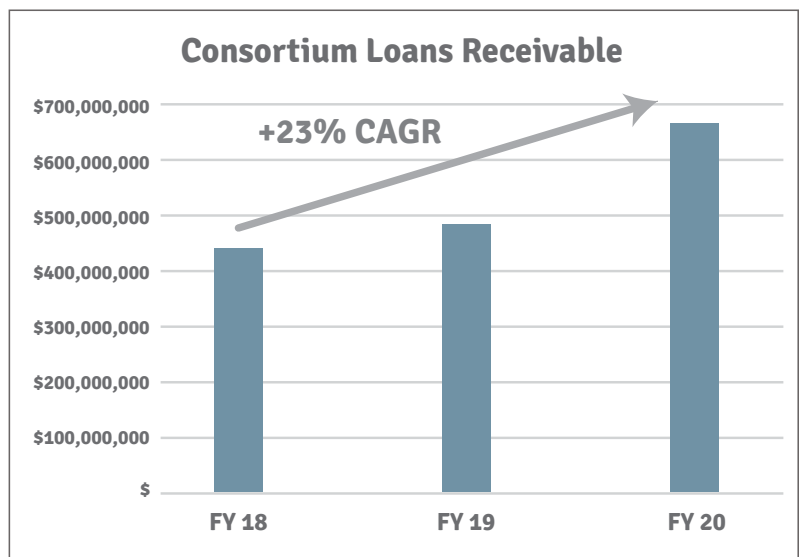
by earned revenue generated from green bank business activity. This measure strips out the revenue streams that are deposited with green banks that are not linked to their operating activities, such as funds from the Regional Greenhouse Gas Initiative or systems benefit charges. This metric has been a priority for Consortium members as the green bank movement has become a relied-upon source of capital for underserved markets across the United States.

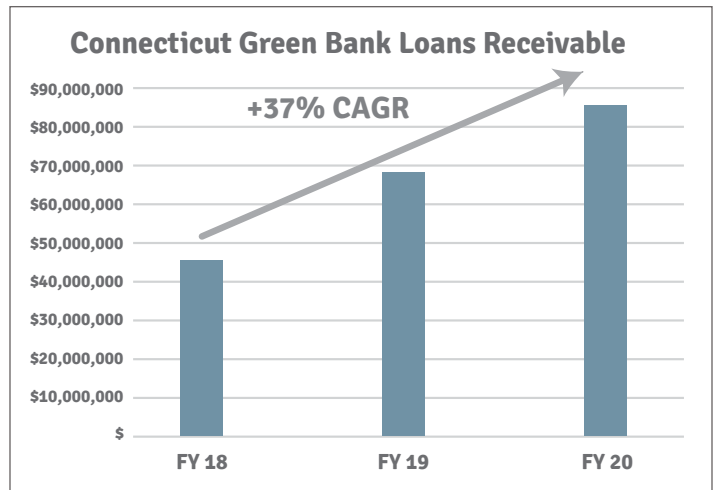
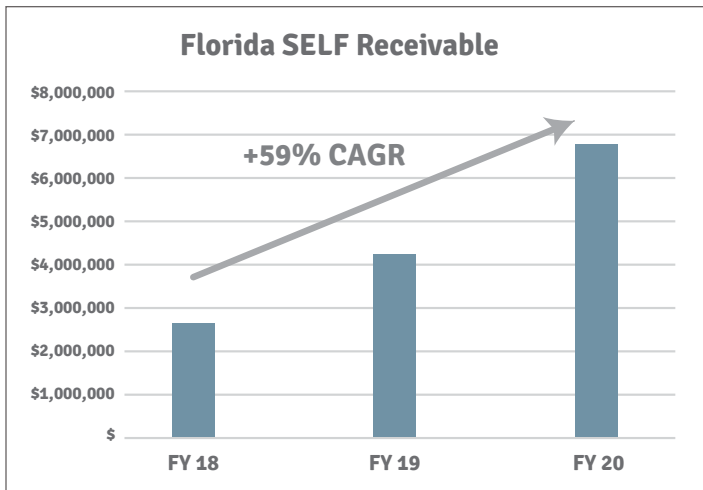
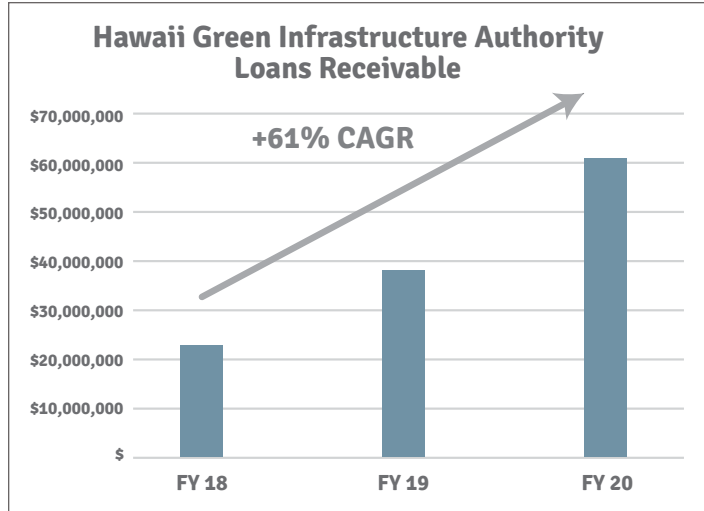


Recent Growth in Loans Receivable

Loans receivable is one of the key metrics that green banks track in their financial statements. This metric measures how much capital from the organization has been deployed in the form of loans to green and resilient projects. The overall compound annual growth rate in loans receivable for the Consortium from the end of fiscal year 2018 to the end of fiscal year 2020 are shown at right.

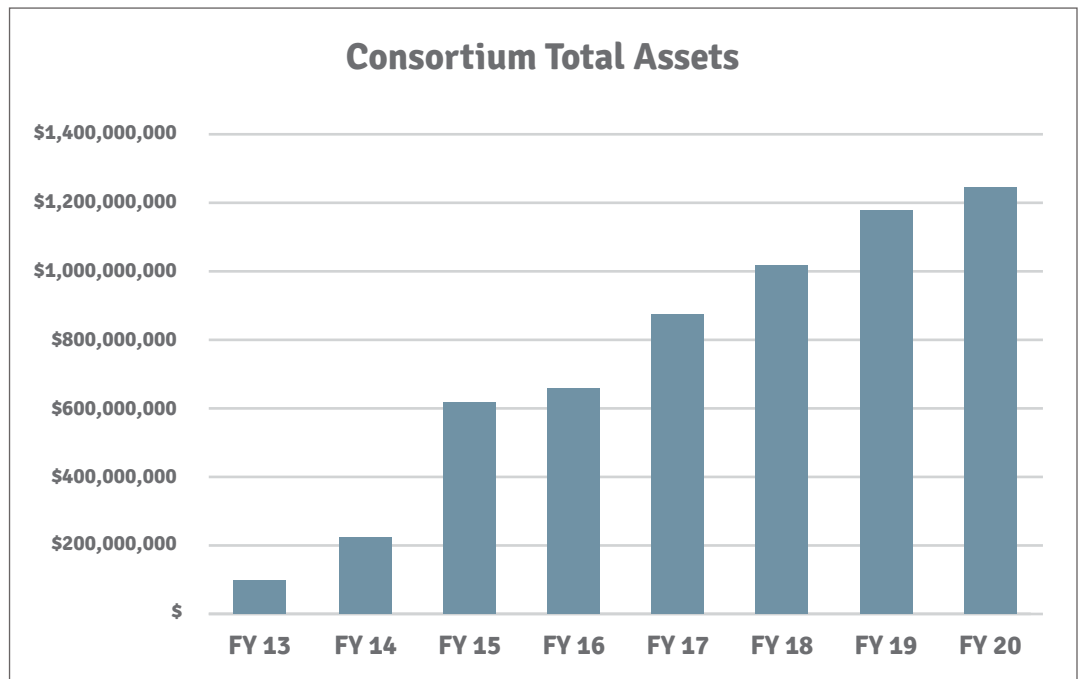
The top three Consortium members in terms of compound annual growth rate of loans receivable from the end of fiscal year 2018 to the end of fiscal year 2020 are shown on the next page.





Total Asset Growth

Green banks in the U.S. have built out a substantial collective balance sheet since 2011. As green banks have demonstrated impact and shown themselves worthy of public investment, green banks have amassed solid balance sheets that will serve as excellent starting points for deploying further Accelerator investment:



Spotlight on 2020 Green Bank Activity

California Alternative Energy and Advanced Transportation Financing Authority (CAEATFA)

<https://www.treasurer.ca.gov/caeatfa/>
www.gogreenfinancing.com

As the COVID crisis set in, staff of the California Alternative Energy and Advanced Transportation Financing Authority (CAEATFA), an agency of the California State Treasurer's Office, worked diligently to ensure the seamless availability of its programs while continuing to refine them in service to California's long-term goals. The California Hub for Energy Efficiency Financing (CHEEF), a suite of programs operated by CAEATFA, also saw significant growth in its private capital financing programs to help Californians make their homes and businesses more energy efficient. The Residential Energy Efficiency Loan Assistance Program (REEL) reached several milestones: over 1,000 loans enrolled and more than \$16 million financed, the highest volume of new loans enrolled in a single quarter, and approval to transition from a pilot to a full-scale program per the California Public Utilities Commission. The Small Business Energy Efficiency Financing Program (SBF) benefited from increased virtual outreach, and the Affordable Multifamily Energy Efficiency Financing Program (AMF) launched a new financing product. Additionally, the Spanish language version of GoGreenFinancing.com, the customer-facing platform for the financing programs, was released.

California Pollution Control Financing Authority

<https://www.treasurer.ca.gov/cpcfafa/>

The California Pollution Control Financing Authority (CPCFA) provides California businesses with financing options for pollution control facilities and other green upgrades. CPCFA partners with sister state agencies to achieve the state's environmental policy objectives by administering high-impact financing

programs designed to assist regulated entities and other stakeholders with accessing private capital. In 2020, CPCFA administered several programs serving a variety of goals. CPCFA helped businesses construct solid waste, recycling, water and wastewater projects as a conduit issuer of tax-exempt bonds. CPCFA issued eight bonds for \$404,785,000 in 2020, bringing CPCFA's total bond activity to more than \$16.6 billion. CPCFA's California Capital Access Program (CalCAP) provides specialty financing for electric vehicle charging stations, on-road heavy-duty truck small fleet owners and more. CPCFA also conducts extensive brownfields remediation and recycling support work in California.

Climate Access Fund

www.climateaccessfund.org

The Climate Access Fund (CAF) is a nonprofit green bank focused on increasing low-income access to discounted clean energy through Maryland's Community Solar Pilot Program. CAF offers low-cost debt, a guaranty product, and co-development assistance to community solar developers who offer discounted solar subscriptions to low-income households. Despite the COVID pandemic, in 2020 CAF raised additional capital for its guaranty fund and ended the year with five projects in active development and additional projects in its pipeline. CAF's five projects, anticipated for construction in 2021 and 2022, are expected to generate 7.5 MW of solar power for consumption by more than 1,700 low-income households. Every dollar of CAF guaranty capital will leverage \$5 in private investment for low-income benefit and participating low-income households will save 20-25% on their energy bills.

Climate Catalyst Fund

In June of 2020 California Governor Gavin Newsom signed the Climate Catalyst Revolving Loan Fund Act, establishing the Climate Catalyst Fund at the Infrastructure Bank (IBank) as the state's all-purpose

financing vehicle for climate and sustainability projects. The Fund is designed to enable direct lending, credit support, conduit financing and special-purpose financing vehicles for private, public, tribal and nonprofit sponsors. The Fund will be the state's principal method for partnership with federal initiatives in climate and sustainability infrastructure.

The Act requires the Catalyst Fund to collaborate closely with the state's Strategic Growth Council and Labor and Workforce Development Agency to define the Fund's categories of activity. For the first year, the Fund will emphasize the Governor's recent world-leading Executive Orders promoting zero-emission vehicles and the role of natural and working lands as solutions to the climate crisis, as well as broader opportunities presented through any federal infrastructure program.

Colorado Clean Energy Fund

www.cocleanenergyfund.com

After completing its formation process and implementing its governance structure in 2019, the Colorado Clean Energy Fund (CCEF) spent 2020 focused on raising investment capital, developing product lines, building a network of partners, and sourcing a pipeline of prospective projects. CCEF fully developed its inaugural lending products that will support low-and moderate-income residences and small businesses seeking to pursue clean energy projects. CCEF also pinpointed several viable sources of investment capital. For example, Colorado Governor Polis included a \$30 million funding line item for CCEF in his supplemental budget request to the Colorado General Assembly that seeks to stimulate Colorado's economy. With this funding, CCEF will launch and expand its lending programs in 2021 in lockstep with a strong network of partners. To that end, 2020 was a year of progression and transformation for CCEF. CCEF executed on its strategic vision and is now primed to produce a significant positive impact on Colorado's clean energy industry in 2021.

Connecticut Green Bank

www.ctgreenbank.com

The Connecticut Green Bank, the nation's first full-scale green bank, has a mission to confront climate change and provide all of society a healthier and more prosperous future by increasing and accelerating the flow of private capital into markets that energize the green economy. This is accomplished by leveraging limited public resources to scale-up and mobilize private capital investment into Connecticut. In 2017, the Connecticut Green Bank received the Innovations in American Government Award from the Harvard Kennedy School Ash Center for Democratic Governance and Innovation for their "Sparking the Green Bank Movement" nomination.

In 2020, despite the impacts of COVID-19 on the economy, the Connecticut Green Bank had one of its best years for financing clean energy projects in Connecticut, using \$36 million in public funds to cause over \$312 million in total investment in the state. A few highlights from the year:

- Issued its inaugural Green Liberty Bond, a municipal bond with an S&P rating of "A" and Climate Bond Initiative certified. This nearly \$17 million securitization supporting the Green Bank's solar PV and energy efficiency program in partnership with Eversource Energy and United Illuminating, won The Bond Buyer's "Innovative Deal of the Year Award" in 2020.
www.greenlibertybonds.com
- C-PACE, which has now completed more than 330 projects statewide, has provided nearly \$185 million in public and private financing that will avoid energy costs of nearly \$300 million over the life of the projects.
- The Green Bank is working with the State of Connecticut to help bring the first large-scale solar projects to state buildings. EPC contracts were executed on the first round of projects in 2020, representing 11 MWs and a total investment of \$18.6m.

- In collaboration with Live Oak Bank, the Green Bank was part of a \$5 million financing for a farm-waste-to-energy anaerobic digester (AD) – its second AD project in its portfolio, the first being a food-waste-to-energy project in collaboration with People’s United Bank.
- In collaboration with Fifth Third Bank, Liberty Bank, and Amalgamated Bank, as well as Groton Utilities and Connecticut Municipal Electric Energy Cooperative, the Green Bank supported construction and term financing for a \$40 million 7.2 MW fuel cell project at the New London U.S. Navy Submarine Base. The project uses two (2) Sure Source 4000 fuel cells manufactured by FuelCell Energy in Danbury, Connecticut.
- In collaboration with Inclusive Prosperity Capital, the Green Bank provided Capital for Change, a local Community Development Financial Institution, with a \$7.7 million term credit facility to finance its Low-Income Multifamily Energy (LIME) Loan program.
- Supported Greenworks Lending with a \$5 million term loan facility through a competitive request for proposals to lower the lender’s cost of capital to finance C-PACE projects in Connecticut.
- Built a first-of-its-kind project to aggregate emissions reductions from transportation electrification, using voluntary carbon offsets to support early-market expansion of EV charging infrastructure and services. This project started aggregating charger systems in 2020 and will certify its first sellable credits in 2021, from an expected inventory of 1,000+ third-party owned EV chargers, in partnership with national networks, utilities and others.

DC Green Bank

www.dcgreenbank.com

In the midst of the COVID-19 pandemic, official operations of DC Green Bank were launched in April of 2020 with the hiring of our CEO, Eli Hopson. Our focus in 2020 was on three key elements: our people,

our operations, and our pilot investments. DC Green Bank hired our five-person leadership team throughout the year, with all five members coming on board by October. The leadership team is comprised of the CEO, Financial Controller, General Counsel, Chief Investment Officer, and Director of Operations. Once we had our leadership structure in place, we began building out our full team. We focused on adding capacity that not only helps us to make investments, but also ensures that we are making investments aligned with our mission. At the close of 2020, the DC Green Bank team was comprised of nine staff. In addition to staffing, DC Green Bank’s start-up and operations efforts ranged from identifying banking services, human resources to communications to legal, to IT to auditing. One clear success in 2020 was DC Green Bank’s ability to develop clear internal processes, policies, and procedures. It is important that as we brought on a great team to do the work of the Bank and support our community, we developed policies to take care of our people – these include employment policies, ethics policies, anti-harassment policies, diversity/equity/inclusion policies, and beyond.

DC Green Bank made its first investment to meet a need arising from the impact of the pandemic. Flywheel Development, a local contractor and Certified Business Enterprise, had initial approval from a private lender to provide construction funding for a portfolio of eight solar projects. However, as the impacts of the pandemic accelerated, the private financial institution paused all lending activities, leaving the timing of the projects in doubt. As the projects were also supported by a time-sensitive grant, construction timing was critical in order to be eligible for the grant. DC Green Bank was able to partner with a District-based community development financial institution – City First Enterprises – to quickly fill this gap, deliver \$1.78 million of financing, and help Flywheel to move the projects forward. The eight projects – located in affordable housing communities across D.C. Wards 4, 7, and 8, and impacting more than 300 DC households – are in line with DC Green Bank’s commitment to inclusive prosperity and show that all communities in the District

have the potential to be leaders on the road to a clean energy future. The projects created 28 full time equivalent clean energy jobs during the construction phase, are expected to generate 1,510 megawatt hours of clean energy and reduce 1,177 tons of CO2 equivalent annually, enough to power over 200 homes. In addition to the benefits to DC's climate goals, these installations are projected to result in aggregate utility bill savings of \$3.5 million for low-income households over the life of the projects. Lastly, alongside the solar installations, DC Green Bank investment also supported building envelope improvements through vital roof repairs and replacements that will improve the quality of the housing for residents and further increase the energy efficiency of the buildings.

Energize Delaware (Delaware Sustainable Energy Utility)

www.energizedelaware.org

Energize Delaware programs have a proven track record of providing energy-savings for Delaware's homes, businesses, farms, houses of worship, non-profits, state & local government agencies and schools. These programs aid job growth and increase business expansion through energy saving and green energy projects. These projects also reduce operating costs and lower greenhouse gas emissions.

We are proud of the progress we made during 2020 even with the challenges of the pandemic. COVID 19 took everyone by surprise, but we quickly adjusted to ensure safety; nevertheless, most programs continued to operate. To make our program more affordable a series of actions were taken, the cornerstone of which was to establish a \$200,000 Utility Bill relief fund for those whose income was impacted by COVID 19. In addition:

- Energize Delaware launched the Empowerment Program, funded with \$4 million in funds designated for low-income energy efficiency programs for Delmarva Power customers. In 2020, \$933,390 was awarded across six programs.

- The first two Delaware Property Assessed Clean Energy (D-PACE) financing projects closed, including \$6.9 million in private financing for the famous Dupont Office building on Market Street in Wilmington.
- Energize Delaware refinanced \$55 million of our 2011 Energy Efficiency Revenue Bonds, saving the State of Delaware \$3.9m in interest payments.
- Energize Delaware entered into a Master Lease Agreement with Bank of America to provide tax exempt lease financing for a five-year period, under which \$14.4 million in energy saving measures was financed in 2020.

Energize Delaware is excited to continue, even under these unusual times, serving Delaware through our wide array of programs. We are dedicated to the goals of reducing energy consumption via energy efficiency, creating green jobs, and reducing greenhouse gas pollution, all while saving our customers money and reducing our dependence on foreign oil.

Finance New Orleans

www.financenola.org

In 2020, Finance New Orleans (FNO) began its transition to a hybrid green bank and Housing Finance Authority with the support of two grants: One from the Mississippi River Cities and Towns Initiative to research Environmental Impact Bonds, and the other from C40 Cities to create a financing plan for Green Infrastructure in New Orleans. Simultaneously, the agency started the groundwork for its new programs under its new hybrid model through the signing of a Cooperative Endeavor Agreement (CEA) with the City of New Orleans and the Louisiana Housing Corporation (LHC) and beginning a series of working meetings for what will be known as the Resilient New Orleans Finance Plan. The Resilient New Orleans Finance Plan is designed to provide a green finance framework focused on the mobilization of steady, reliable financial flows that are both economically viable, while producing social and environmentally positive jobs and benefits.

Through the CEA with the City and LHC, FNO launched the Sustainable Developer Financing Program, a public financing platform for affordable and innovative housing developers to apply for a PILOT (Tax abatement), Housing Bonds, Tax Credits, and Green Bonds. In 2020, FNO issued three approvals for PILOTs to affordable housing projects totaling over \$55.7 million and adding approximately 200 units. The agency also created the Community Support Fund in response to the COVID-19 pandemic, which awarded a total of \$49,675 in Rental and Utility Assistance to the community.

In 2021, Finance New Orleans is focused on growing the Sustainable Developer Financing Program, launching our Green Mortgage Program to incentivize resilience and energy efficiency in single-family homes, and developing other innovative programs to support sustainable, affordable housing, Green Buildings and Green Infrastructure projects.

Florida Solar & Energy Loan Fund (SELF)

www.solarenergyloanfund.org

SELF broke all-time lending records in 2020, surpassing the previous 10-year record in 9 of the last 10 months. Demand was simply “off-the-charts.” SELF’s overall lending activity increased by 84% in 2020 and surpassed \$5 million annually for the first time. SELF has now grown by 393% over the last three years and completed 2,000 sustainable home improvement projects totaling \$18 million, with 74% of the lending activity in underserved markets and a default rate below 2%.

SELF also continued its key partnerships with the City of St. Petersburg and Hillsborough County (Tampa) and opened up a third satellite office in Orange County in the summer of 2020. SELF also initiated major grant projects in South Florida with the Lowenstein Foundation and JP Morgan Chase’s Pro Neighborhoods program and received a major grant from the Opportunity Finance Network (OFN) to promote energy efficiency in low- and moderate-income (LMI) neighborhoods. The Energy Foundation also

provided a small grant to assist with the American Cities Climate Challenge in Orlando. SELF also developed a new septic-to-sewer conversion loan with Martin County and their Utility which will serve as a model for the Sunshine State.

GO Green Energy Fund

www.growthopps.org/go-green-energy-has-taken-off/

In 2020, Growth Opps (a Cuyahoga County, Ohio based CDFI) launched the first African American led Green Bank in the United States with initial seed capital of \$3.55 million and primary support from The George Gund Foundation. Growth Opps has identified two prospective community solar projects to deploy an innovative model, which creates balance sheet equity for subscribers in lower income neighborhoods.

Hawaii Green Infrastructure Authority

www.gems.hawaii.gov

The Hawaii Green Infrastructure Authority (“HGIA”) was the result of Act 211, 2013 Session Laws of Hawaii, which created the framework for establishing a State administered clean energy financing Authority. The loan fund was capitalized with the net proceeds of a Green Energy Market Securitization bond, which innovatively re-purposed a financing mechanism historically leveraged to rescue stranded utility assets. HGIA was constituted in November 2014 to democratize clean energy by making it accessible and affordable for Hawaii’s underserved ratepayers, defined as low and moderate-income homeowners, renters, nonprofits, small businesses (as defined by the U.S. Small Business Administration) and multi-family rental projects.

Like the rest of the state, nation and world, the COVID-19 pandemic disrupted HGIA’s implementation of its 2020 goals and objectives. In spite of a number of commitments aggregating \$11.1 million being cancelled during the calendar year, the Authority continued its focus on providing clean energy financing to underserved ratepayers by com-

mitting an additional \$8.8 million in loan capital. Aggregate loan funds committed as of December 31, 2020 totaled \$87.4 million, facilitating over \$114.0 million in clean energy projects.

During the year, HGIA was recognized by the U.S. Department of Energy as a 2020 Goal Achiever for exceeding its fiscal 2020 \$25.0 million funding goal. HGIA also responded in a number of ways to the COVID-19 pandemic by offering loan deferrals of up to six months to all borrowers. Approximately 63% of its residential portfolio and 89% of its commercial portfolio opted in for these deferrals.

In 2021, HGIA plans to expand its financing to include community based solar projects, EV charging stations and electric vehicles. It will also be working with sister agencies to deploy the State Small Business Credit Initiative funds and leverage other private capital.

Inclusive Prosperity Capital

[Inclusiveprosperitycapital.org](https://inclusiveprosperitycapital.org)

2020 was a year focused on capital raising, product development, building partnerships and pipeline for Inclusive Prosperity Capital (IPC). A capital stack of \$40M was secured from investors such as NY Green Bank, Connecticut Green Bank and Greenprint Capital to support IPC's distributed commercial and community solar ownership platform, with the NY Green Bank facility also supporting IPC's other investment business lines including multifamily, non-profit, single family and small infrastructure projects. Despite the outsized impacts of COVID-19 on our target markets, IPC deployed nearly \$8M of project financings, including for the acquisition of solar projects on churches, community centers, schools, a town hall and other faith-based service organizations in Connecticut, Nevada, New York and Massachusetts; as well as loans for solar on multifamily housing serving deeply low income residents in eastern Oregon, energy efficient equipment for a Detroit non-profit and New York state church, and health and safety work for a non-profit housing developer in

Connecticut. IPC secured a seed grant from the Leon Lowenstein Foundation in partnership with NYCEEC and NYSERDA to create an Accelerator in the Buffalo, NY region focused on clean, resilient upgrades on affordable multifamily and community buildings. In response to the economic distress of COVID-19, IPC and Elevate Energy repurposed their partnership focused on supporting diverse contractors into a Diverse Business Emergency Loan Program, focused on small, minority-owned businesses in IL that had trouble accessing federal relief programs.

IPC launched a new partnership with the Philadelphia Energy Authority to bring pre-development and term loan options to multifamily and non-profit property owners. IPC partnered with Inclusiv (the member network of CDFI credit unions) and the Center for Impact Finance at University of New Hampshire Carsey School of Public Policy on a 3-year DOE grant to bring solar lending to community lenders – a major focus is on the Smart-E Loan Program and NGEN technology platform, which enables local lenders to offer an unsecured loan to homeowners through a network of vetted contractors. IPC continued to support Connecticut Green Bank's financing programs and investments for the residential sector and underserved credits and technologies. IPC continued to develop its partnerships with BlocPower, a B Corp provider of leased heat pumps for underserved properties in the urban core, and mission-aligned solar developers focused on underserved commercial markets and smaller projects. The organization dedicated itself to a revamped strategy to ensure diverse talent is recruited and retained at the staff level, culminating in a Justice, Equity, Diversity, Inclusion and Belonging statement and action plan that also lays out principles for engaging with external partners and codifies IPC's mission, vision and values. A major focus in 2021 will be on growing the ownership platform for distributed commercial and community solar projects, completing our blended finance capital raise, and building out deployment partnerships with developers, originators and channel partners such as nonprofits, other green banks, and CDFIs. IPC is a 501(c)(3) specialty finance intermediary focusing on the intersection

of community development, clean energy finance, and climate impact. IPC spun out of the Connecticut Green Bank in 2018 to scale up investment in underserved credits and markets nationally, including low- and moderate-income communities, by accessing new mission-driven capital sources and forging partnerships with mission aligned lenders, community-based organizations and others.

Maryland Clean Energy Center

www.mdcleanenergy.org

The Maryland Clean Energy Center (MCEC) focuses on three areas of effort: access to capital, innovation advancement, and educational outreach. Responding to the pandemic during March of calendar year 2020, MCEC closed its office and transitioned staff to work from home. In general, financing activity of the Center was significantly impacted, but efforts directed toward innovation advancement and outreach accelerated in the virtual environment.

Through calendar year 2020, Maryland Clean Energy Center financing programs overall have leveraged over \$91.5M in private capital to implement energy measures. MCEC has issued over \$38M in taxable and non-taxable bonds for large EPC projects through its Maryland Clean Energy Capital (MCAP) program. In 2020, MCEC offered technical and procurement support for project development as a new fee for service business line. Projects being developed in 2020 are anticipated to call for financing assistance in the future, and MCEC envisions building out this capability in 2021.

The Maryland Property Assessed Clean Energy (MD-PACE) program is operating in most of the state jurisdictions to assist small business and commercial property owners finance energy measures. The program is realizing results in the marketplace. At the end of 2020, \$23.5M in commercial PACE project funding had been financed. With projects currently in the MD-PACE pipeline, MCEC expects that number to double in 2021.

Through 2020 the Center has been working in partnership with the Montgomery County Green Bank and as a member of the Maryland Public Service Commission (PSC) Finance Work Group to redesign and rebrand the program, and obtain PSC approval for rate payer surcharge funds to subsidize the new construct. Plans to launch a pilot program are still pending.

In keeping with its mission to support tech to market commercialization of energy technologies emerging from universities and labs in the state, MCEC operates the Maryland Energy Innovation Accelerator (MEIA). In 2020 MEIA hosted eight start-up teams, secured a \$25,000 sponsorship for a company, and helped teams raise over \$1M in angel and crowd funding venture investment.

The Maryland Clean Energy Center convenes consumer, business, academia and government stakeholders through educational outreach programs and events. In 2020, all MCEC scheduled live events and forums were replaced with virtual events.

In fall of 2020, MCEC also hosted a ten-part webinar series entitled “Connecting to the Energy Economy.” This FREE webinar series was designed to connect speakers and stakeholders, with a focus on current events in the evolving energy economy. The session recordings are also posted online for continued viewing at www.mdcleanenergy.org/speakerseries.

Michigan Saves

www.michigansaves.org

Michigan Saves, the nation’s first independent, non-profit green bank celebrated ten years of energy financing and surpassed \$300 million in private investments in Michigan’s homes and businesses. In 2020 alone, Michigan Saves supported more than \$53 million of energy improvements.

In March, due to the global pandemic, the organization supported contractors by providing education and awareness around federal programs offered to

small businesses like the Paycheck Protection Plan, and shared best practices around safety protocols for installing energy equipment in homes and businesses. Michigan Saves also added indoor air quality improvements to qualifying measures and participated in several educational events with state departments targeted to small businesses.

In the fall, Michigan Saves unveiled a bold new brand and logo that provides a clear focus on access and inclusivity and positions Michigan Saves as an expert in clean energy financing. The organization also launched a new project management portal and a sophisticated residential loan application system and call center, improving program efficiency for customers, contractors, and program staff. Michigan Saves facilitated the launch of an on-bill financing program for Traverse City Light and Power residential customers, the second such program in the state.

Governor Gretchen Whitmer proposed a one-time, \$5 million appropriation for Michigan Saves in the state's 2022 budget, which would provide Michigan Saves with additional resources to leverage private investment at a rate of \$30-to-\$1. This investment would allow Michigan Saves to make clean energy improvements affordable and accessible for even more Michiganders.

Montgomery County Green Bank

www.mcgreenbank.org

In 2020, the Montgomery County Green Bank continued its efforts to build a set of resources that can support the County's greenhouse gas reduction goal and the related Climate Action Plan. At the close of 2020, the Montgomery County Green Bank has a complete suite of products capable of advancing work to meet the County's goals and this emerging plan by supporting commercial, multifamily, and residential owners in the County to undertake energy efficiency and renewable energy projects. Further, the Montgomery County Green Bank took measure of its programs and reiterated its commitment that its work would be inclusive to all parties, and initiated

intentional steps to assure its efforts were available to the diverse population in the County. Some of the highlights of the work of the Montgomery County Green Bank include:

- Launching a residential energy efficiency and renewable energy product – the Clean Energy Advantage – in partnership with two lenders and closing 10 loans in support of geothermal and solar PV homeowners;
- Completing financing under its Commercial Loan for Energy Efficiency and Renewables and executing technical assistance to six affordable homeownership communities to deliver energy efficiency benefits to these communities;
- Crafting and bringing to market in just 90 days a Small Business Energy Savings Support program that was designed to respond to the COVID-19 indoor air quality needs of small businesses with interest only and deferred interest payments as well as low cost loans for energy savings measures;
- Developing a commercial solar pv program that recognized the need for nonprofits and small business to undertake solar pv installation with no out-of-pocket costs, and completing arrangements for a power purchase agreement with a private capital / development partner that provides very low-cost contract pricing and no out-of-pocket costs for arrays as small as 25 kW;
- Continuing work with several developers to bring forward community solar developments for low- and moderate-income households; and
- Initiating work to assume the role of program administrator for the County' Commercial PACE program which will allow the Montgomery County Green Bank to become the go-to place for all clean energy financing for commercial properties in the County.

Together, this work places the green bank in the premiere spot to help the County achieve its important

greenhouse gas reduction goals and accomplish the significant strategies the County is establishing in its Climate Action Plan.

New York City Energy Efficiency Corporation (NYCEEC)

www.nyceec.com

In 2020, NYCEEC, a not-for-profit lender and the first local green bank in the US, continued to pursue its vision: “energy efficiency and clean energy financing for buildings to achieve scale and be accessible to all.” Implementing its current strategic plan – with the overarching goal to achieve \$1 billion of cumulative investment impact by 2025 – NYCEEC closed transactions in the Northeast and Mid-Atlantic regions. NYCEEC has mobilized \$237 million of capital toward building energy efficiency and clean energy projects – an increase of over 40% from the end of 2019. Further, it has “greened” over 11,300 affordable housing units with its financing, representing a 60%+ increase since December 2019.

NYCEEC continued to focus on growing lending partnerships with banks, CDFIs, private investors, specialty finance companies and affordable housing lenders. NYCEEC also assisted other green banks in their formation or growth. As the PACE administrator for the City of New York, NYCEEC plans to launch NYC’s Commercial Property Assessed Clean Energy (C-PACE) program in 2021 and expects the program to create the largest C-PACE market in the US.

New York Green Bank

www.greenbank.ny.gov

NY Green Bank is a \$1.0 billion investment fund designed to accelerate clean energy deployment in NYS and is globally recognized as a leading sustainable infrastructure investor. Since 2014, NY Green Bank has played a critical role in accelerating clean energy deployment and investment in New York State. With the backing of the State, NY Green Bank has invested \$1.2 billion to reduce CO2 emissions for all New Yorkers and mobilize private capital into the clean

energy economy in clean energy and sustainable infrastructure projects. NY Green Bank investments support financially and technically feasible projects where the developer or project sponsor has limited access to capital.

- In the calendar year 2020, NY Green Bank had its strongest second and third quarter to date, deploying \$303.5 million to fund renewable energy and energy efficiency projects statewide amid the COVID-19 pandemic. NY Green Bank’s 2020 commitments are expected to spur up to \$800 million of private capital investments, resulting in a total \$1.1 billion of capital deployed into New York State’s clean energy economy. Projects financed across the state in 2020 during the COVID-19 crisis included wind farms, community distributed solar plus storage, renewable and energy efficiency projects to benefit low- and moderate-income communities, fuel cells, and more. To further support clean energy and sustainable infrastructure business during COVID-19, NY Green Bank became an approved lender under the U.S. Small Business Administration’s Paycheck Protection Program and issued four loans to businesses that reduce greenhouse gas emissions in New York State.
- NY Green Bank played a variety of roles in the capital structures of these projects, including providing construction finance, short-term aggregation finance and long-term finance, and investing as a senior lender, back-leverage lender, and subordinated lender. As of December 30, 2020, projects supported by NY Green Bank’s investments are expected to reduce between 13.3 – 25.3 million metric tons of CO2 emissions for all New Yorkers, equivalent to removing more than 259,000 cars off the road for 23 years.

North Carolina Clean Energy Fund

The North Carolina Clean Energy Fund (NCCEF) is the result of a year of groundwork by the Coalition for Green Capital and the Nicholas Institute for Environmental Policy Solutions at Duke University (NI). Following the release of a market assessment of

the opportunities for a green bank in North Carolina, NI and CGC established a non-profit organization in November 2020 to house the NCCEF to help build the state's clean energy economy and support emission reduction efforts in an equitable and affordable way. NI and CGC were able to attract a highly experienced founding board of directors representing important areas of North Carolina's clean energy sector and have established a mission statement, bylaws and a pipeline of projects to accelerate clean energy expansion in the state. NCCEF's mission is to accelerate investment in clean and efficient energy solutions and increase climate resilience in North Carolina, particularly to the benefit of underserved populations. We plan to partner with public and private investors, foundations and other non-profit organizations to deploy sustainable financing solutions that will create long-lasting environmental, economic and social benefits.

Philadelphia Green Capital Corporation – coming summer 2021!

The Philadelphia Green Capital Corp. (PGCC) will be the green bank affiliate of the Philadelphia Energy Authority. PGCC's mission is to connect projects to capital to drive a robust, equitable, clean energy market in the Philadelphia region, support the Philadelphia Energy Authority, and respond to the local challenges of climate change. The Philadelphia Energy Authority runs solar, energy efficiency, and workforce development programs and has spurred \$167MM of clean energy investments in Philadelphia to date. PGCC will scale and amplify this work by using proven green bank tools to unlock capital for clean energy projects.

With an official public launch planned for Summer 2021, PGCC plans to offer four products initially: pre-development loans and term loans for non-profits and multifamily buildings, a revolving SREC fund, and loans for low-income homeowners installing solar.

Rhode Island Infrastructure Bank

www.riib.org

In 2020, the Infrastructure Bank facilitated over \$133 million of financing for a variety of environmental infrastructure projects, of which 52% leveraged private capital sources. In all, the \$133 million of project finance will support approximately 2,555 jobs for Rhode Island's skilled laborers. Of the total investment, Infrastructure Bank programs financed \$84,899,290 million in clean energy projects for public and private sector clients. These clean energy projects saved clients over \$6.6 million in energy costs while reducing greenhouse gas emissions by 28,914 metric carbon tons, a figure equivalent to 6,288 average passenger vehicles being driven for one year. The C-PACE program had the biggest year since its inception, facilitating over \$55 million in lending across eight transactions. Projects included the first refinancing transaction in RI to utilize C-PACE. The Stormwater Project Accelerator expanded to provide upfront capital to projects utilizing state and federal reimbursement grants and financed \$1.5 mm for community-based green infrastructure projects. The Bank continued to expand the Municipal Resilience Program and contributed an additional \$1.5 million of capital to fund environmental infrastructure projects that protect local economies from the impacts of climate change. Looking forward, the Bank will continue to catalyze investment in resilient clean energy and environmental infrastructure, while growing local jobs, supporting economic development and protecting the environment.

A National Green Bank: The Clean Energy & Sustainability Accelerator

Twelve years ago, then-Representative Chris Van Hollen introduced the Green Bank Act of 2009 and created the green bank movement. His bill was the first in a flurry of legislative, executive, and regulatory activity at the federal, state, and local level that has resulted in \$7 billion of investment caused by twenty-one operating green banks across the United States today, with each dollar of public investment causing \$3.70 of overall investment in the clean energy economy. This 12-year track record of proven success has led to the doorstep of major federal action on the economic recovery and the battle against climate change with the possible creation of the Clean Energy & Sustainability Accelerator.

The Accelerator is an independent, non-partisan nonprofit finance entity that will create jobs, support businesses, and build clean and resilient infrastructure with the proven green bank model. President Biden recently proposed the creation of an Accelerator in his American Jobs Plan, and bills in the House and Senate would create the Accelerator funded at a level of \$100 billion. Forty percent of the total investment from the Accelerator will go to disadvantaged communities across the country to ensure a just and equitable transition.¹

The Accelerator bill has already gotten a great deal of traction in Washington:

- The House version of the Accelerator passed the House twice in the summer of 2020
- The House version of the bill has garnered bipartisan support, including co-sponsorship from Rep. Don Young (R-AK) and Rep. Brian Fitzpatrick (R-PA)
- Nearly 250 groups have signed onto a letter to Speaker Pelosi and Majority Leader Schumer urging the creation of a \$100 billion Accelerator, including:

Major environmental groups such as NRDC, Sierra Club, League of Conservation Voters, Environmental Defense Fund, Union of Concerned Scientists, Appalachian Voices, and the Climate Reality Project

Clean energy industry groups including the Solar Energy Industries Association, Black Owners of Solar Services, the Energy Storage Association, Vote Solar, and the Southern Renewable Energy Association



With \$100 billion in federal capitalization, the Clean Energy and Sustainability Accelerator (CESA) is expected to support \$880 billion in green investment over 10 years.



CESA-supported investment is expected to deliver 440 thousand jobs in its first year, and over five and a half million jobs within its first five years.



The \$100 billion capitalization of CESA would support 2.5 billion metric tons of cumulative emissions reductions over its first 10 years of operation.



By 2030 the CESA is expected to deliver one fifth of the emissions reductions needed on a path towards net-zero emissions by 2050.

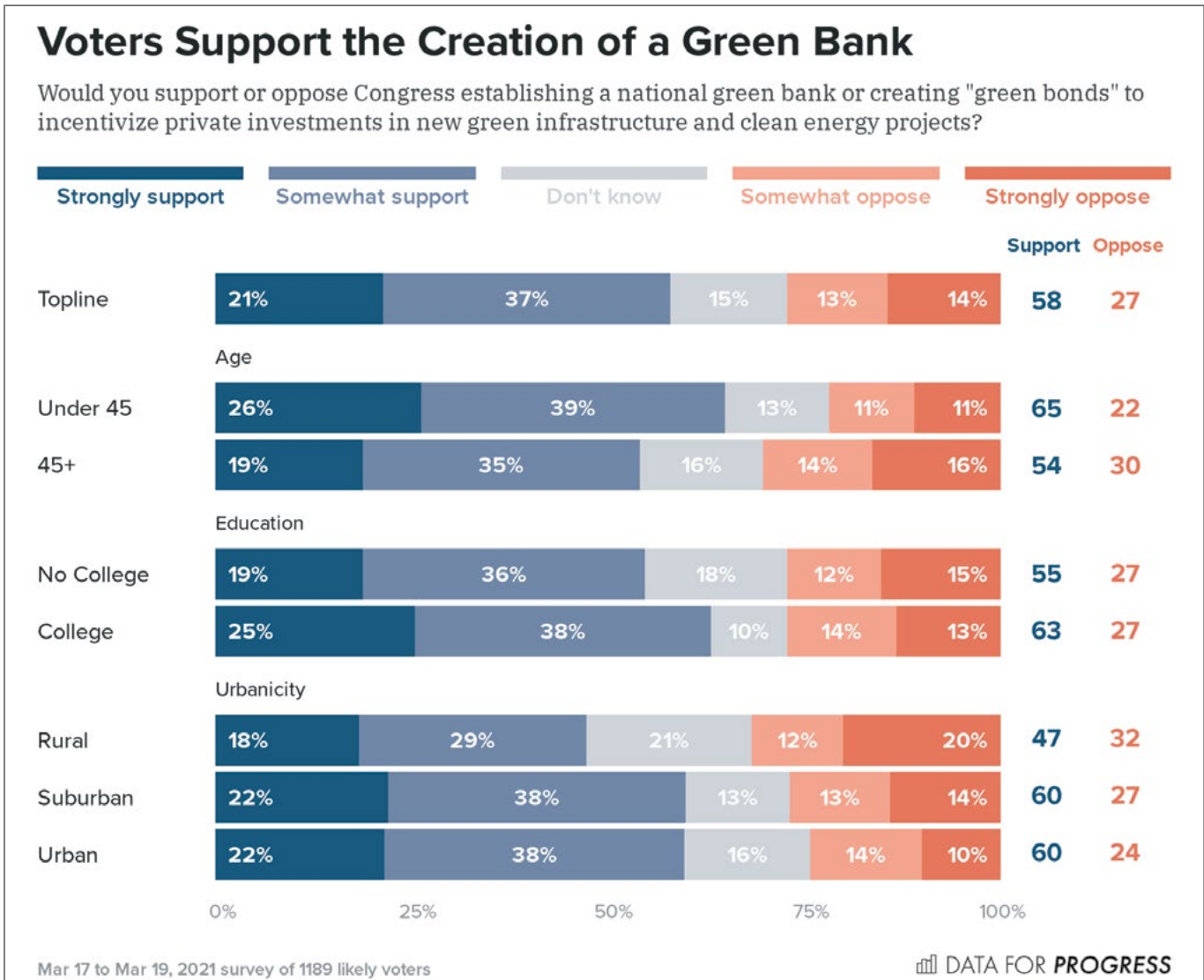
Utilities and businesses like Alaska Power & Telephone, Generate Capital, Amalgamated Bank, Bloc Power, Ameresco, and the Latino Economic Development Center

- The Accelerator has been endorsed by policy experts at the National Academies of Sciences, C2ES, Evergreen Action, Energy & Environmental Study Institute, and Third Way
- The green bank concept was also proposed by the presidential campaigns of now Vice President Kamala Harris and now Secretary of Transportation Pete Buttigieg

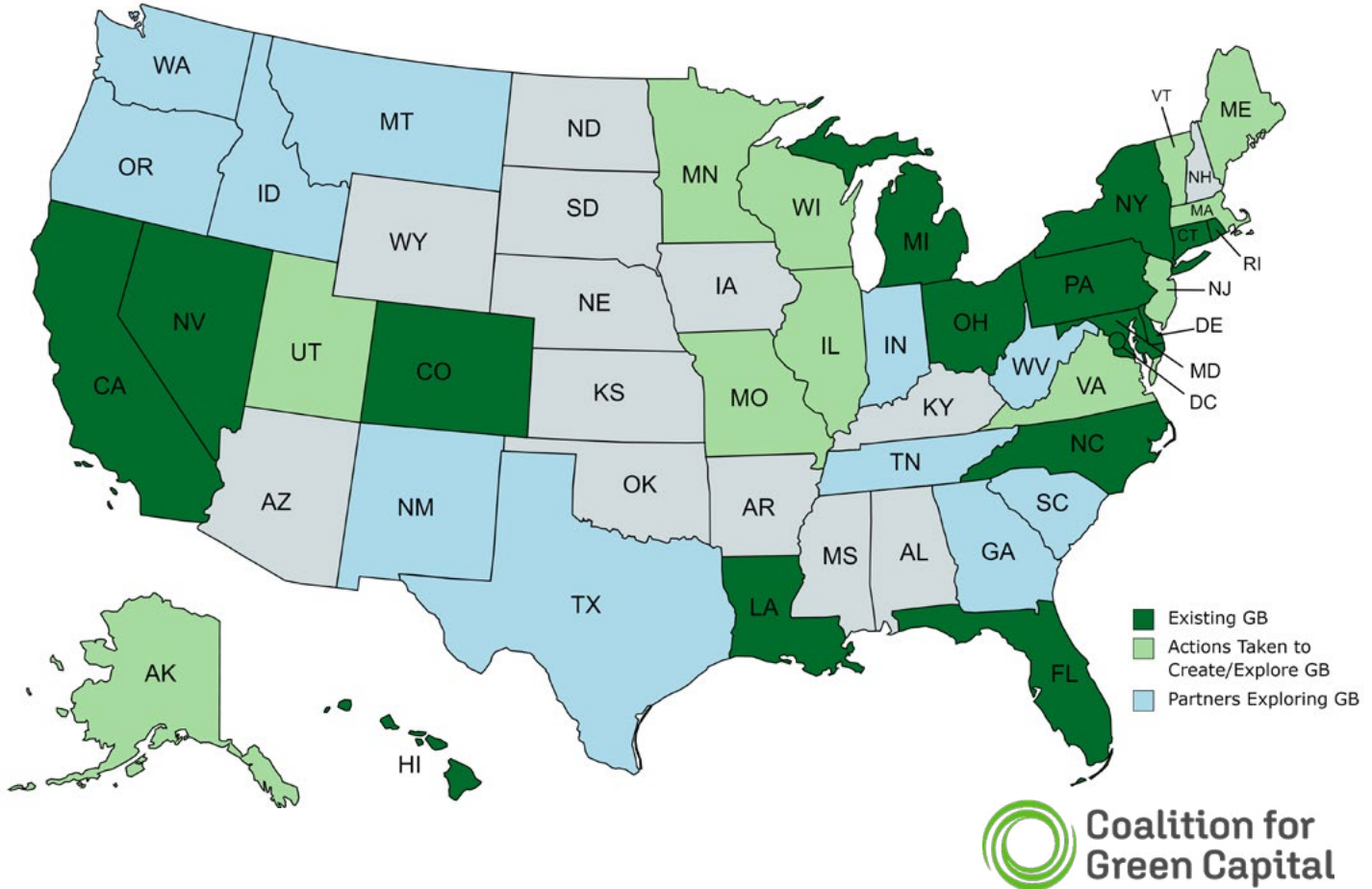
Moreover, recent polling from Data for Progress shows the breadth of support that the green bank model enjoys:²

The green bank movement has spread across the country rapidly, and green banks or green bank exploration projects in 38 states could stand to benefit from the creation of the Accelerator (see map next page).

President Biden and Congress have the opportunity to enact an American Jobs Plan that includes a Clean Energy & Sustainability Accelerator this year. This new institution would fully realize the promise envisioned in now Senator Van Hollen’s original Green Bank Act of 2009 and help put the country back on track to a full economic recovery and major progress in the battle against climate change. For more information on the Accelerator proposal please visit www.coalitionforgreencapital.com/accelerator.



State Green Bank Landscape



What Problems do Green Banks Solve?

An independent study of the Accelerator concept by the Brattle Group says, “institutional and financial bottlenecks are often slowing the clean energy transformation.” The bottlenecks can be grouped into a number of general categories. In her testimony to the Senate Banking Committee, the Hewlett Foundation’s Marilyn Waite identified the following obstacles³:

- **Pricing of Perceived Risks:** Risks that apply to climate-friendly investments are often perceived by investors in vastly different ways. This results in a wide variation in pricing and capital availability. For example, energy efficiency projects are universally identified as critical to solving climate change; yet the inability to finance these projects

based on the strength of their energy savings has limited their deployment. Investors’ opinions, not always data, sometimes lead to an over reliance on the financial strength of the project hosts, which can lead to requiring credit enhancements or complicated structures to satisfy investors’ concerns over the durability of energy savings.

- **Deal Size Preferences:** The market for larger, centralized projects with vetted technologies initiated and supported by utilities, governments, corporations and other long-term credit worthy counterparties is well known and quite active. Yet, smaller, distributed projects—including solar photovoltaic, energy efficiency, electric vehicles, and others at the residential, small commercial and industrial sectors often have challenges accessing

sufficient levels of long-term capital. This typically occurs because large institutional investors, such as pension funds, traditionally participate in utility scale deals on a significantly grander scale—where deals are worth \$50 million or more. This preference for large deals means that relatively smaller projects worth \$10,000, \$100,000, or even \$1,000,000 often get left out.

Beyond these obstacles, the Coalition for Green Capital further identified a number of further obstacles to achieving the level of investment required to address the climate crisis in a policy paper:⁴

- **Low Incentive to Serve LMI and Communities of Color:** Low-to-moderate income communities and communities of color are chronically underserved by clean energy and climate infrastructure developers and installers. An installer of residential efficiency projects, for example, may be selling those installation services without any financing solution, relying on the homeowner to pay cash out of pocket. That installer may then presume that households in certain communities won't have sufficient cash on hand to pay for the installation, and so the service is never offered. Alternatively, the installer may have a financing solution that allows for purchase with no upfront payment. However, that installer may presume that certain households lack the creditworthiness to qualify for financing. So again, the service is not offered in those communities. This has resulted in a disproportionately low market penetration for clean energy solutions in low-to-moderate income and communities of color. Accordingly, capital must be intentionally directed to these communities.
- **Marginal Project Economics:** There is only demand for a clean energy project if it can produce financial benefits for the end customer. A solar or wind project that sells electricity to a customer at a price that is above what they currently pay will, all else equal, not be built. This is true even if the project is sound and financeable in every other respect. The price at which the power must be sold to customers is directly related to the cost and
- terms of financing that are used to build the project. Financing provided at longer terms or at lower rates will in turn result in cheaper electricity that can produce savings for a customer. Therefore, pulling various financial levers to lower the overall cost of financing for the total project can meaningfully expand markets.
- **Lack of Technical Capacity at Local Level:** There may be a significant opportunity in certain communities to build public benefit microgrids that ensure continued safety and security for a community during a heavy storm. But a significant amount of technical knowhow is required within the community to cause that microgrid to be financed and built. This includes technical, engineering, procurement, and financing knowledge, that many communities do not have readily at hand. As a result, projects like these rarely are built, even if they are cost effective, financeable and deliver significant benefits to communities. This lack of technical ability prevents all kinds of community-level projects from moving forward, including clean energy and resilience projects.
- **Low Consumer Awareness:** There is nothing to finance unless there is demand for the product that needs financing. Demand for distributed clean energy solutions is incredibly low primarily due to low awareness and understanding of the opportunity to use cheap, cleaner and better energy solutions. Perception that clean energy is expensive or is complicated to adopt has kept demand far below the size of the true addressable market. Intense and broad-based marketing efforts are critical to overcoming this barrier.
- **Project Life and Debt Tenor Mismatch:** Clean energy and climate-related projects often have a very long project life, typically generating returns and producing benefits over decades. For example, a solar installation's life may be 30 years. Replanting forests may have an even longer life. That means the project's revenue generation is spread out over many years, as well. The tenor of the debt taken out to finance the construction of those projects, though, does not always match the project

lifespan. For example, a 30-year solar project may only be able to secure debt for ten or 15 years. This mismatch erodes the underlying economics and returns for the developer, shrinking the size of economically viable projects that a developer may pursue. For consumer-focused distributed projects like energy efficiency, the consequence of this mismatch is that the shorter loan term means each loan repayment is larger. These payments

may exceed the amount of savings produced by the project in any given month. Therefore, the shorter loan period means the project is not “cash flow positive” on a month-by-month basis until the loan is fully repaid. Longer loan terms that match the project life would reverse this barrier and make the same project cash flow positive from day one.

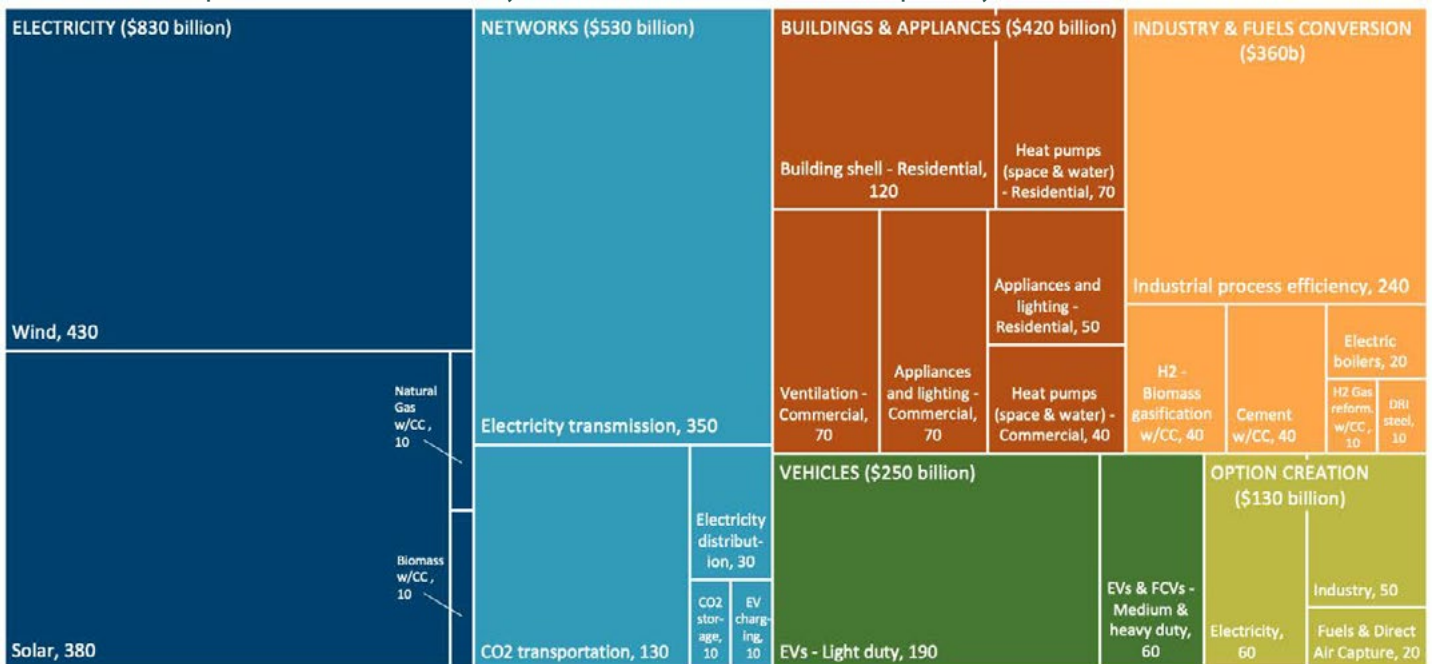
Why is an Accelerator Needed?

In order to fend off the worst effects of climate change, there needs to be an enormous increase in the rate of investment into green and resilient projects across the United States. To be specific, researchers at Princeton University have identified at least \$2.5 trillion in additional investment on top of business-as-usual in the next ten years in the U.S. that is required to put the country on track to achieve net-zero carbon emissions by 2050.

An independent study by Vivid Economics shows that a \$100b Accelerator would cause \$880b in public and private investment over 10 years, representing fast and substantial progress toward the necessary level of investment to reach net-zero carbon emissions in the U.S. by 2050.

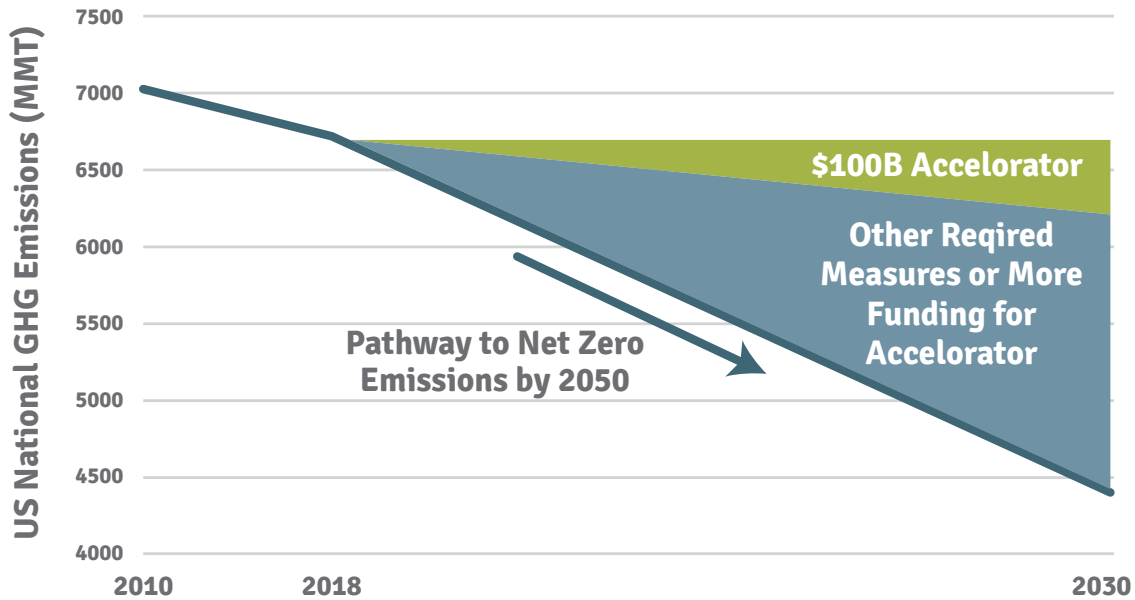
Capital Invested (vs reference case) in 2020s is at least \$2.5 Trillion⁵

Total additional capital invested, 2021-2030, by sector and subsector for a net-zero pathway vs. business as usual (billion 2018 \$)

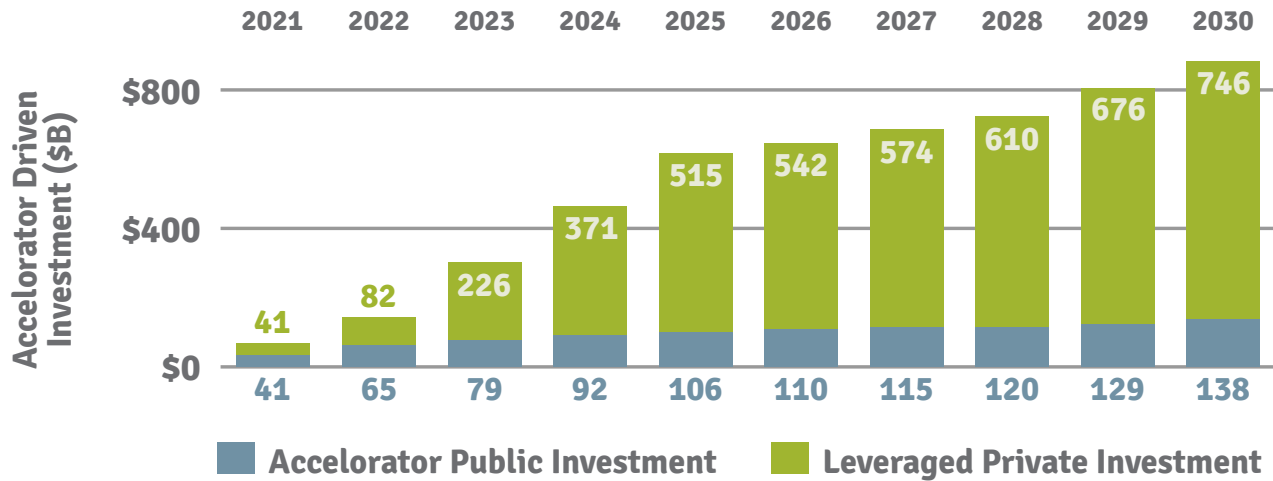


Includes capital invested pre-financial investment decision (pre-FID) and capital committed to projects under construction in 2030 but in-service in later years. All values rounded to nearest \$10b and should be considered order of magnitude estimates. Incremental capital investment categories totaling less than \$5b excluded from graphic. Other potentially significant capital expenditures not estimated in this study include establishment of bioenergy crops and decarbonization measures in other industries besides steel and cement, non-CO2 GHG mitigation efforts, and establishing enhanced land sinks.

Accelerator GHG Emissions Impact on Pathway to Net Zero by 2050⁶



Accelerator Cumulative Overall Investment Caused⁷



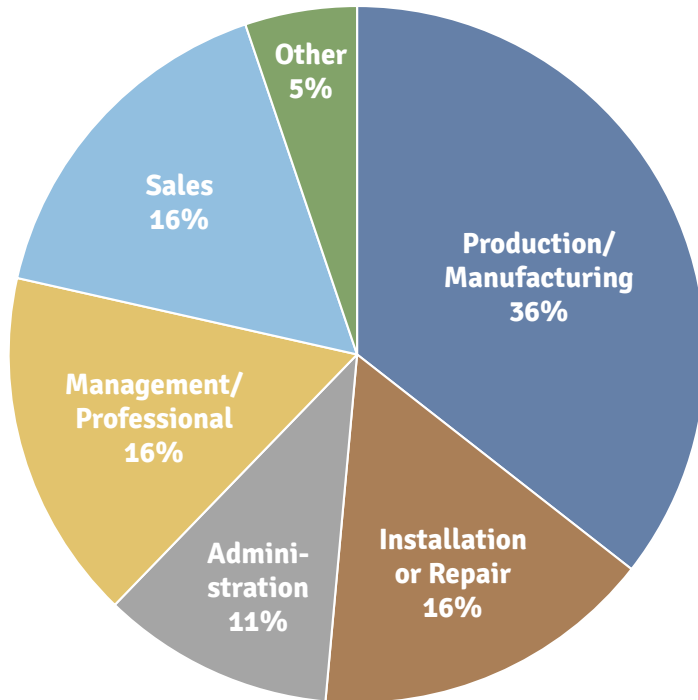
The Accelerator will also create jobs across skillsets, including sales, manufacturing, installation, and administrative. According to an independent analysis by Vivid Economics, an Accelerator capitalized with \$100 billion would create 4 million jobs in four years (see graph, next page).⁸

The Accelerator by statute will allocate 40% of its investment capital into disadvantaged communities across the U.S. The organization will build on the work of state and local green banks and be a powerful tool for environmental justice in its own right,

by a) supporting the expansion of the environmental justice programs currently underway in state and local green banks b) creating local financing entities that enable local control of climate investment and c) undertaking large and complex environmental justice related investment projects.

The Accelerator will also undertake large-scale projects that enable communities to recover from the effects of fossil fuel infrastructure. Supporting revitalization efforts of fence-line communities The Accelerator will serve as a new source of capital for

Jobs for Range of Skillsets



**\$100B Accelerator Capitalization
= 4 Million Jobs in 4 Years**

US Clean Energy and Sustainability Accelerator Impact Assessment

The Jobs and Emissions Reduction and Abatement Potential for a \$100 billion CESA

:vivid **economics**
putting economics to good use

the revitalization of fence-line communities. Low-income communities and communities of color are more likely to live in fence-line communities that are in close proximity to polluting fossil fuel infrastructure. These communities have long fought for regulatory interventions to mitigate the harms caused by fossil fuel infrastructure, and are increasingly forcing the decommissioning of this infrastructure. However, once the polluting facilities are closed, capital is required to rebuild, repair and renew damaged community infrastructure. Currently, communities depend on scarce philanthropy and governmental grants to undertake these rebuilding efforts. The Accelerator will be capable of providing the low/ no-cost patient capital that communities need to undertake revitalization projects like community renewable generation facility construction and green retrofits of housing and commercial spaces.

The Accelerator will also be a tool to support a just transition for communities harmed by the transition away from fossil fuel infrastructure. Many low-income, communities of color, Native and indigenous communities are being devastated by the closure of fossil fuel infrastructure, like coal mines, that were previously the primary source of employment and tax revenue in their communities. Responding to this reality requires a cohesive national response led by the communities experiencing this crisis. However, the Accelerator can play a role as a capital provider as these communities develop their post-fossil fuel future. The Accelerator will provide financing that supports the creation and capitalization of new businesses in clean energy and climate infrastructure, one of the fastest growing segments of the economy. The Accelerator will also be a capital provider for communities looking to reclaim former fossil fuel infrastructure sites, mitigating public health and environmental risks. The Accelerator will carry out its mission of investment in disadvantaged communities by building on the legacy efforts of green banks already operating and bringing the ability to finance projects at scale through its capitalization.



— Green Bank Impact in Disadvantaged Communities —

Connecticut Green Bank: Responding to Inequity in Solar Deployment

The Connecticut Green Bank became aware of a disparity in its solar deployment results. In response, the green bank set out to correct this disparity by increasing participation from environmental justice communities. As of 2019, CTGB has achieved “parity” in its solar deployment results, meaning that the households and businesses that have received assistance from the Connecticut Green Bank are representative of the demographics of the state itself. The organization has achieved “beyond parity” with solar deployment to communities of color. This focus on parity has allowed the benefits of going solar to be enjoyed by people and businesses of all walks of life, not just those that may have more access to information about the existence of these programs. Connecticut Green Bank CEO Bryan Garcia writes:

The energy affordability gap for our most vulnerable citizens is about \$1,400 per year, which means that the poor are paying more for energy in our state than what is affordable. Through state efforts in partnership with the private sector, it is solar power and energy efficiency that are reducing that affordability gap by nearly \$1,100 per year... Our state is a “parity state” when it comes to income and “beyond parity state” when it comes to race in terms of solar deployment – meaning the poor and communities of color are demanding solar power and energy efficiency more than those with means and who are White.⁹

A specific example drawn from the Connecticut Green Bank showcases the savings that solar energy, combined with energy efficiency, can provide to individual families.¹⁰ Susan Young, a

homeowner in Bridgeport, CT, was paying over \$500 per month in utility bills. To lower her costs, she signed up for a ground-breaking new solar and efficiency financing program launched by the Connecticut Green Bank. With no down payment or upfront cost, the green bank and its developer partner lowered the energy needs of Susan’s home with energy efficiency, and then installed solar panels on her roof. Now after the installation, she pays \$120 per month on the financing, and her utility bill is now just \$28. With the combined remaining utility bill and financing charge, Susan comes out well ahead compared to what she was paying before.

This financing solution was made possible through a credit-enhancing junior loan made by the green bank, as well as by using alternative underwriting criteria. Rather than evaluate a borrower’s eligibility based on traditional banking metrics like credit score or debt-to-income ratio, the only consideration was whether or not the homeowner had consistently paid his/her utility bills for the last 12 months. The example is part of the Solar for All program, established in 2014 after the Connecticut Green Bank (the first green bank in the U.S.) found a racial and income disparity in solar adoption rates in the state. Since the program launched in partnership with PosiGen, solar penetration in Connecticut’s low-income communities has increased 188% and over 800 low-income verified households have signed up to go solar.¹¹ As a testament to its success, this early demonstration has led to the creation of a larger \$90 million facility with a private investor allowing Posigen to expand the product into new states.¹² PosiGen is working with Inclusive Prosperity Capital, a nonprofit co-founded by the Connecticut Green Bank, to expand this effort nationwide.

Looking Ahead for Green Banks and the Accelerator

Getting to Work Quickly with an Accelerator

The most important task ahead for green banks in the U.S. in the event of the creation of an Accelerator will be springing to action with alacrity to deploy Accelerator capital into communities across the United States. The 21 members of the American Green Bank Consortium are ready to begin the process of deploying funds into clean energy projects in the near term. As part of a strategic planning exercise conducted by the American Green Bank Consortium, the members have identified \$21B of near-term investment opportunity. These are either specific individual projects or investment programs that can be repeated at scale. Identified investment opportunities include:

- Building efficiency and upgrades: \$5.3 billion
- Building electrification: \$626 million
- Renewable power and distributed generation: \$4.8 billion
- Climate resilience: \$3.1 billion

Specific green bank interventions and products include but are not limited to:

- Solar + storage projects on Native American tribal lands
- Pre-development lending for affordable multifamily building upgrades
- DC fast charging electric vehicle charging station equipment
- Low-to-moderate income household electrification lending
- Lending for clean energy projects on farms
- On-bill financing via utility partnerships to upgrade rural homes
- Heavy duty zero emissions vehicle financing
- Microgrid and grid resilience financing
- Community solar lending
- Resilient infrastructure lending programs

Community Based Lender Partnerships

The Accelerator will work in partnership with local, community-focused lenders such as CDFIs, community banks, and credit unions. It will use a range of financing and market development techniques that will make it easier and more profitable for private and mission-driven capital providers of all kinds to move into and rapidly scale their own lending. The ultimate goal of the Accelerator is to mainstream green lending so that any lender – particularly those serving low-income communities – can finance clean energy projects at scale with confidence. This goal is embodied in the Accelerator’s 30-year charter – it is meant to put itself out business because by then all lenders and investors should be financing clean energy and climate-related projects at scale without the need for a dedicated, mission-oriented green bank.

It is particularly important for community-focused lenders to work in partnership with the Accelerator, as they are well positioned to drive economic development and project investments in chronically underserved communities. The relationships and market knowledge they already possess will be an essential component of any plan to achieve a rapid and equitable climate transition.

There are already models of both of these forms of partnership with the Accelerator – becoming a green bank or partnering with a state green bank. Here are five specific examples.

• Direct Engagement with Accelerator

For large-scale transactions, CDFIs and financial institutions of all kinds will be able to directly access the Accelerator. The Accelerator will make lending decisions based off of criteria to be established by the executive management team and approved by the Board of Directors, so it is difficult to get into any level of specificity about the exact parameters of these deals. It

is, however, envisioned that all types of financial institutions could look to partner with the Accelerator for deals of a certain size.

- **Transformation into a Green Bank – Finance New Orleans**

Since 1978, Finance New Orleans has provided mortgage financing for low-to-moderate income families and credit support for affordable rental and community development projects. In 2020, Finance New Orleans decided to undergo an organizational shift toward becoming a resilient and green lender for New Orleans. The organization is currently developing its first green loan product, a green mortgage program for homeowners in New Orleans that will allow for affordable financing for resiliency and green energy upgrades.

- **CDFI Purpose-Built as a Green Bank – Florida Solar and Energy Loan Fund**

The Florida Solar and Energy Loan Fund (SELF) is a CDFI that has a mission to rebuild and empower underserved communities by providing access to affordable and innovative financing for sustainable property improvements, with a primary focus on energy efficiency, renewable energy, and climate resilience in low-to-moderate income neighborhoods. This was SELF's founding mission when it began operations in 2011, and continues to be today as it has grown its lending portfolio to over \$17 million in lending across Florida.

- **CDFI Partnering with a Green Bank – Capital for Change and the Connecticut Green Bank**

The Connecticut Green Bank partnered with Capital for Change (a Connecticut-based CDFI) and Amalgamated Bank to offer Connecticut homeowners affordable unsecured lending for energy efficiency projects. The partnership between the three financial institutions created a \$27 million line of credit for a nonprofit subsidiary of Capital for Change, called CEEFCo.

Amalgamated Bank provided \$22.5 million of the funding and the Connecticut Green Bank provided a risk-mitigating \$4.5 million in funding, which allowed for CEEFCo to extend unsecured, low cost, long term financing to Connecticut low-to-moderate income homeowners. The Connecticut Green Bank's capital allowed Capital for Change to deploy capital that would reach their target low-income market on terms that would actually work for their customers.

Capital for Change is also an authorized lender in the Connecticut Green Bank's Smart-E program, which provides a credit enhancement in the form of a loan-loss reserve and management of a contractor network that enables lender partners to offer unsecured lending for clean energy and energy efficiency projects at their homes. Capital for Change is the largest lender by volume in the entire Smart-E program.

The Connecticut Green Bank and Capital for Change also partner on the Loans Improving Multifamily Efficiency (LIME) program. Capital for Change is the lender in this program, and they work with contractors to energy rehab multifamily properties by underwriting to energy savings. The Connecticut Green Bank provides the capital for the program (in the form of a loan to CEEFCo) at attractive terms (up to twenty year maturity, between 3-5% interest rate). Most of the value provided by the Connecticut Green Bank is in the extended tenor of the loan, which is often unavailable for projects like these.

- **Credit Union Partnering with a Green Bank – Michigan State Federal Credit Union and Michigan Saves**

Michigan Saves – Michigan's green bank – provides a loan-loss reserve to mitigate risk for Michigan State Federal Credit Union through Michigan Saves' Home Energy Loan Program. The capital set aside in a loan-loss reserve account acts essentially as a partial guarantee of energy efficiency and clean energy loans offered by Michigan State Federal Credit Union,

THE NGEN PLATFORM: Consortium Members Partnering with Community Lenders

The Smart-E Loan model, born out of the Connecticut Green Bank and Michigan Saves, works with a network of community lenders such as credit unions, community banks, and CDFIs to support single family energy improvements. Through a vetted contractor network, over 40 different energy upgrades can be financed under this loan, ranging from insulation, windows, HVAC to geothermal and solar PV. With underwriting guidelines requiring a 580 FICO or higher, this product is positioned to offer borrowers the same low interest rate, no matter their qualifying FICO score and is a great solution for reaching low-income communities and credit-challenged borrowers. This is achieved through a loan loss reserve made available to participating lenders.

Inclusive Prosperity Capital is formally engaged with Inclusiv, the national federation of community development designated credit unions, and University of New Hampshire Carsey School on a US Department of Energy grant to bring the Smart-E platform to community lenders across the country. Overall, the focus on the expansion of the program has been to provide a financial solution for credit challenged homeowners that does not penalize those borrowers with higher interest rates, therefore making the benefits of clean energy accessible to more homeowners. This program model is resonating with community lenders, state and local governments and nonprofits all across the country.

Collectively, the Connecticut Green Bank, Michigan Saves, and Inclusive Prosperity Capital, with support of Hewlett Foundation, developed a workflow management tool, the NGEN platform, to help programs create efficiencies and scale quickly. Programs around the country are exploring utilizing the NGEN platform and the Smart-E Loan model including: Colorado's RENU loan program, Arkansas's Energy Office, the City and Country of Santa Fe New Mexico, Philadelphia Energy Authority, and North Carolina Clean Energy Fund, and stakeholders in Arizona, Kentucky, Ohio, among many others.

allowing the credit union to offer low-cost, long term, unsecured loans to homeowners in the state. Michigan Saves also manages the contractor network that is pre-qualified to implement the measures and ensures measurement and verification after the installation of the upgrades.

As these examples show, there will be many ways for the thousands of community-focused lenders to partner with the Accelerator and benefit from its capital. The goal is to leverage this vast existing network of community partners to drive equitable investment as quickly as possible. The Accelerator, which has a requirement that 40% of its funds be dedicated to disadvantaged communities, will not be able to achieve this goal without partnerships with community banks, CDFIs and credit unions. This partnership will result in growing portfolios of low-risk clean energy and climate-related loans in their target markets for these lenders.

Appendix: Methodology

Methodology

The green bank impacts presented in this report are the result of information gathering performed by CGC. Key metrics were collected from public reports issued by each green bank as well as direct information provided to CGC by various green banks upon request. Sources for green bank data in the report are from green bank self-reporting, as well as press releases, public filings, and other communications from the organizations.

Endnotes

- 1 <https://coalitionforgreencapital.com/wp-content/uploads/Accelerator-Impact-Vivid-Economics-11.22.20.pdf>
- 2 <https://www.filesforprogress.org/memos/voters-support-climate-financial-reforms.pdf>
- 3 <https://www.banking.senate.gov/imo/media/doc/Waite%20Testimony%203-18-21.pdf>
- 4 <https://coalitionforgreencapital.com/wp-content/uploads/Policy-Analysis-of-the-Clean-Energy.pdf>
- 5 https://environmenthalfcentury.princeton.edu/sites/g/files/toruqf331/files/2020-12/Princeton_NZA_Interim_Report_15_Dec_2020_FINAL.pdf
- 6 <https://coalitionforgreencapital.com/wp-content/uploads/Accelerator-Impact-Vivid-Economics-11.22.20.pdf>
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- 9 <https://www.ctgreenbank.com/solar-for-all-benefits-the-poor/#:~:text=Our%20state%20is%20a%20%E2%80%9Cparity,means%20and%20who%20are%20White>
- 10 “Malloy Touts Solar Energy Savings.” CTPost, July 21, 2015
- 11 “Connecticut Green Bank Receives 2018 State Leadership in Clean Energy Award for Connecticut “Solar for All” Program.” Connecticut Green Bank, May 16, 2018
- 12 “Financial Partnership Secures Growth of Nation’s Leading Low-Income Residential Solar Provider,” Connecticut Green Bank, January 23, 2019

