

May 29, 2020

Via Electronic Mail
New Jersey Economic Development Authority
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Coalition for Green Capital
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Coalition for Green Capital Response
2020-RFI-OET-CE-102
May 2020

The Coalition for Green Capital (CGC) is pleased to submit this response, and thank you so much for the opportunity. The development of a potential Green Financing Mechanism (GFM) in New Jersey fits squarely within the consulting services for “Green Banks” and similar clean energy finance entities that CGC has delivered to states and cities for the past decade. CGC has a unique skill set that combines deep knowledge of clean energy finance institutional structures – both in the US and abroad – with practical experience in building the business plans, operating models, and first products for these institutions. Through our project experience interviewing thousands of clean energy market participants, CGC has built up expertise in identifying the real financing gaps that are preventing projects from moving forward through, and developing and vetting financing approaches that address these gaps.

CGC welcomes the opportunity to build on our past work with stakeholders in New Jersey to refine the further development of a GFM (referred to interchangeably here as a Green Bank) in the state. Based on work to date, CGC recommends forming the Green Bank as a program that is housed, launched and incubated within the EDA, and which is ultimately able to stand on its own as an independent non-profit corporation. This lets the Green Bank enjoy the best of both worlds: the benefits of strong backing by the state at its inception, while ensuring it can operate independently and with strength long into the future as administration’s change.

The ongoing COVID-19 crisis makes the development of a Green Bank all the more pressing. While the full extent of the economic damage is still unknown, it is clear that unemployment across the nation and in New Jersey will be staggeringly high in the aftermath. Many industries affected by the crisis will not easily be able to put people back to work. By providing targeted financing and market development, the Green Bank can spark growth in clean energy markets, serving as the funding vehicle to put New Jersey back to work again. People of all skillsets – sales, customer service, marketing, engineering, contracting and more – can be employed in these growing markets.

Please provide information on your company, group, government entity, or self and your capacity and qualifications within the clean energy finance marketplace.

The Coalition for Green Capital (CGC) is a 501(c)3 non-profit organization focused on addressing climate change by creating Green Banks to increase investment in clean energy. CGC offers a unique and proven capacity as the leading creator, advocate, and expert on Green Banks since 2009 and works directly to support the formation of Green Banks with governmental and civil society partners. CGC also provides on-going consulting and guidance to operating Green Banks.

CGC accelerates climate investment by connecting capital with underserved markets and technologies. CGC incubates local clean energy finance entities – Green Banks – and structures public, private and mission-driven capital for clean energy investment through those entities. CGC implements and supports Green Banks, with a decade of policy and technical work around the world that has led to over \$5 billion of clean energy investment. CGC is recognized as the go-to expert on Green Bank financing.

Accomplishments and Project Examples

CGC's Green Bank formation projects in the U.S. include:

- Connecticut – CGC partnered with Connecticut government to design, stand-up and develop the strategy for the Connecticut Green Bank in 2012. CGC has remained closely involved in its product development and operating strategy, which has resulted in over \$1 billion of investment to date.
- New York – CGC helped produce the initial business plan, economic model and economic arguments in support of the NY Green Bank's creation. This material was used to support the state regulator's key decision to create and capitalize the NY Green Bank in 2014, which has led to nearly \$2 billion of total investment.
- Rhode Island – CGC partnered with the state Treasurer's office to design and write the legislation to create the Rhode Island Infrastructure Bank, and then worked with the new Bank's leadership on initial product design.
- Montgomery County – CGC first conceived of, designed and created legislation to form the Montgomery County Green Bank. And then CGC operationalized the organization by seconding staff to serve as the Acting Executive Director at the launch phase.
- District of Columbia – CGC was awarded a contract by the District government to evaluate the need and investment opportunity for a Green Bank. CGC also designed the legal, capital and operating structure for the Bank, which led to its creation through legislation that was based on this assessment.
- Climate Access Fund – CGC designed and launched the Climate Access Fund with its founder and CEO to be a government-adjacent non-profit. Today, the Fund is exclusively focused on raising and deploying program related investments to invest in solar targeting low-to-moderate income households in Maryland.
- Nevada – CGC produced a legislatively-directed assessment of the Green Bank need and investment opportunity in Nevada, which identified target markets and investment gaps a Green Bank could fill. CGC then worked with government to pass legislation which formed a new non-profit to serve as the Green Bank, and CGC worked with the state energy office to incorporate and launch that new Green Bank. CGC is now working with the state to staff and operate the Green Bank under a services agreement.

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- Colorado – CGC was contracted with the state energy office to design a state Green Bank, identify target markets and help launch the organization. Today, CGC has incorporated the Colorado Clean Energy Fund as a non-profit endorsed by the governor, and has begun to directly operate the Green Bank on behalf of the state.
 - Cuyahoga County – CGC has recently begun a Green Bank assessment and design project for Cuyahoga County, Ohio. CGC is working in partnership with the local government and large local foundations to identify the investment opportunity and design a functional Green Bank organization.
 - Minnesota – CGC is currently completing a Green Bank assessment and design project in Minnesota, working with the leading regional foundation and with the support of state government leaders.

In addition to U.S.-based Green Bank creation work, CGC has a growing portfolio of Green Bank institutions outside the U.S. This includes:

- South Africa Climate Finance Facility – CGC partnered with the Development Bank of Southern Africa (DBSA), to design, capitalize and launch create a new dedicated “Climate Finance Facility” as a new dedicated unit at the DBSA. The Climate Finance Facility received \$55 million USD in the first-ever capitalization to a Green Bank from the Green Climate Fund. The primary focus of the Climate Finance Facility is to mobilize investment in under-invested markets such as distributed rooftop solar and energy efficiency in urban settings, as well as residential solar in off grid locations.
- Rwanda Green Bank – FONERWA, a Rwanda government agency, contracted with the Coalition for Green Capital to produce an initial assessment of the Green Bank opportunity in Rwanda which was completed and delivered to FINERWA in July 2018 (Phase 1). Based on this work, CGC is currently working with FONERWA towards development of a Green Bank to mobilize private investment into low-carbon markets in Rwanda. This project is underway and has the ultimate goal of producing a plan and pathway to convert FONERWA into an operational national Green Bank.
- The African Development Bank – With support from the Climate Investment Funds (CIF), the African Development Bank has awarded a contract to the Coalition for Green Capital (CGC) to develop a Knowledge Product on National Climate Change Funds and Green Banks in Africa. CGC will identify and work with six African countries to explore early-stage feasibility for appropriate green financing vehicles. CGC’s approach to this NCCF and Green Bank scoping project reflect this country-driven approach to learning and design. It is based upon substantial Green Bank and catalytic climate finance experience in Africa, other emerging markets, and around the world.

In addition to project-level work, CGC founded and operates the American Green Bank Consortium and the Green Bank Network. The Consortium is a membership organization enabling Green Banks, capital providers, developers and other clean energy supporters to work together. The Consortium facilitates knowledge sharing among U.S.-based Green Banks and designs blended finance vehicles that work at scale across the entire network. CGC also serves as the co-Secretariat to the global Green Bank Network (GBN), a membership organization for Green Banks, which supports knowledge exchange and dissemination of the Green Bank model around the world. Through the GBN, CGC has convened numerous international conferences and workshops (Mexico City, Tokyo, etc.) including the annual Green Bank Congress, most recently located in Shanghai, China in 2018 with more than 300 participants.

CGC also works to advance the Green Bank conversation at the federal level. In early 2019 CGC was asked to help Senator Ed Markey of Massachusetts draft climate finance legislation that would embody the principles of the Green New Deal in a tangible and practical way. With that CGC launched a new campaign to form a national Green Bank in the United States. The National Climate Bank Act was introduced in the Senate in summer 2019, and will form a new independent non-profit institution to be capitalized with \$35 billion in federal funds. CGC analysis has found that over the 30-year life of the entity, it could drive \$1 trillion of total investment in GHG-reducing technologies using proven financial techniques. Importantly, several presidential candidates have endorsed the National Climate Bank Act specifically, or offered their own Green Bank proposals. Importantly, a central task of the National Climate Bank will be to provide capital to new and existing state Green Banks. This concept is now embodied in the Clean Energy Jobs Fund, which would create 5.4 million jobs over five years if fully capitalized.

CGC's Work in New Jersey

CGC began work to develop and form a GFM (referred to interchangeably here as a Green Bank) in New Jersey in the middle of 2017. CGC co-authored a paper with the Environmental Defense Fund (EDF) analyzing the need for increased public and private investment in clean energy in the state.¹ That paper outlined multiple pathways to creating dedicated public finance capacity that could mobilize greater private investment in clean energy in the state in order to help the state cost-effectively meet its clean energy goals. With the start of the Murphy administration, those goals have only become more ambitious and the financing need more acute.

The recommendation to create a Green Bank was ultimately included in the governor's official transition plan upon entering office. CGC then continued to meet with officials from the governor's office and multiple agencies, including the Economic Development Authority (EDA). CGC also met with market participants and key outside stakeholders. CGC found strong support across the board for the idea of a Green Bank and continued to offer its expertise and guidance to state officials. This included submitting comments to the state's Energy Master Plan (EMP) process, leading ultimately to the inclusion of the Green Bank in the EMP. CGC has remained engaged with state leaders and continues to seek ways to support and accelerate the Green Bank creation effort in the state.

Please identify existing state government programs, if any, that you believe should be taken into consideration as part the development and operations of a Green Fund (i.e., to avoid duplication, to ensure consistent messaging to the market place, etc.).

The CGC and EDF paper analyzed many of the key programs that already exist and concluded that there is no existing capacity in the state that is suited to playing the role of a Green Bank. The creation of a new entity is required. However, the landscape of existing programs should be considered complementary tools for a Green Bank. The state's Clean Energy Program run by BPU is an important component of achieving the state's clean energy future, and the subsidies and rebates offered through the Program will complement Green Bank financing. Where a subsidy is available, it entices demand and reduces the amount of financing that is necessary to ensure a project has zero upfront costs for the customer. CGC also considered the state's Infrastructure Bank, though it found that its programs are legally bound to focus on municipal borrowers.

¹ "Financing New Jersey's Clean Energy Economy," Environmental Defense Fund.

All elements of the state’s clean energy investment efforts need to be coordinated so that market participants and customers understand what is available to them. Any customer who gets a rebate for an efficiency upgrade to their home, for example, should absolutely be offered 100% financing at the point of sale, whether provided directly by the Green Bank or through a financing partner. Every shared vehicle driver in the state who wants to purchase an EV to take advantage of the new tax-credit should also be able to access favorable financing for that vehicle from the Green Bank.

Importantly, because the Green Bank will not be a regulated entity and part of the overall regulatory framework of the utilities or Clean Energy Program, attribution is not a relevant consideration. Meaning, the state should actively seek to combine all available benefits in each project without concern over who can claim credit for the action itself. The Green Bank will not need to operate in a regulatory framework that requires such attribution, so concern about double-counting is not relevant.

What would be an appropriate level of initial and longer-term capitalization for the Green Fund, and what funding sources should be tapped for such capitalization (e.g., Regional Greenhouse Gas Initiative funding, NJ state appropriations, federal funds, social impact investment)? ‘

Most peer institutions that have gotten off to a successful pathway have started their Green Banks with at least \$50M of capital for financing, a portion of which can also be used to cover operating costs. An amount less than this makes it difficult to operate with any meaningful scale and difficult to generate sufficient operating revenue (interest and fees) to pay for the cost of staff and other operations. If this amount is not available immediately upfront, then a pathway to achieving this minimum amount of capitalization is important to identify.

There is no wrong source of funding for a Green Bank. The only consideration is the form and cost. The most desirable form of capitalization is money that does not have to be repaid. A budget appropriation, an allocation of RGGI auction proceeds, a portion of ratepayer funds collected for the Clean Energy Program – all are highly desirable because they don’t have to be repaid and can be treated effectively as an equity investment or deposit in the Green Bank. Peer institutions in New York and Connecticut have taken this approach.

This funding can, in turn, be borrowed against to increase the Green Bank’s lending capacity. The Green Bank could borrow in several ways. If it is a part of or connected to a state agency, it could leverage the state’s borrowing capacity. It could directly borrow from a social impact investor or a foundation through a PRI. It could also borrow from a commercial bank in some cases, though consideration of the cost of that borrowing and its downstream impact on lending rates of the Green Bank is important.

Finally, the state should be actively advocating through its Congressional delegation and through the governor’s federal office for the full funding of the Clean Energy Jobs Fund, as envisioned in the National Climate Bank Act. Particularly in the midst of this horrific health emergency and the expected fiscal impact on the state, federal dollars will become an essential resource for the continued functioning of state programs. The Clean Energy Jobs Fund will be able to provide hundreds of millions of dollars of capital to the New Jersey Green Bank, so passage as soon as possible will benefit the state.²

² CGC is also actively researching how the Federal Reserve’s newly announced program to purchase up to \$500B of municipal debt could be a resource for state Green Banks.

If established as a governmental or quasi-governmental entity, what would the benefits and considerations be for developing the Green Fund as a new function within an existing state entity vs. as an entirely new agency or instrumentality of state government? What would the benefits and considerations be for establishing the Green Fund outside of state government (e.g., as an independent not-for-profit entity)?

Armed with large sources of public capital and a clear mandate from the government, public Green Banks have been successful in catalyzing market development in their states. When there is strong alignment in the administration about such a policy, publicly-driven and operated Green Banks can be a powerful tool. However, there are potential drawbacks to consider. First is the amount of public resources (focus, money, and political capital) needed to create a new institution or re-purpose an existing one. Next is the time it takes for public Green Banks to reach the market. Due to the large number of stakeholders and legal processes involved with a public Green Bank, the time between when a Green Bank is proposed and when a Green Bank begins to finalize their first deal can be significant. In DC, over two years passed between the completion of the initial Green Bank study and the passage of legislation.

Finally, and perhaps most significantly, these entities are necessarily exposed to political and budgetary risks outside of the Green Bank's control. Facing a state budget deficit in 2017, the Connecticut legislature opted to raid the Green Bank's dedicated stream of funding. The result was that the Green Bank needed to significantly alter some programs and curtail others.³ This potential for "boom and bust" financing cycles is particularly detrimental to developing nascent clean energy markets, which often require a steady hand over the course of several years.

While the public model has been successfully implemented in states where public capital is available and legislatures are supportive of green initiatives, the conditions ideal for a public or quasi-public Green Bank are not found in every state. Other Green Bank models have been tried and tested to overcome these difficulties.

That is why in the case of New Jersey, CGC recommends forming the Green Bank as a program that is housed, launched and incubated within the EDA, and which is ultimately able to stand on its own as an independent non-profit corporation. This lets the Green Bank enjoy the best of both worlds: the benefits of strong backing by the state at its inception, while ensuring it can operate independently and with strength long in to the future as administration's come and go. This would mostly closely follow the path of NYCEEC, which was formed by Mayor Bloomberg and ultimately spun out of NYC government as an independent non-profit.

What kinds of clean energy-related technologies or projects should a Green Fund support? What are the key financing gaps in New Jersey with respect these technologies or projects that need to be urgently addressed?

New Jersey needs to rapidly build a clean power platform to transform its energy infrastructure and reduce emissions. The largest sources of emissions in the state are transportation, power and buildings. Transportation and buildings need to be electrified, and must be powered with renewable energy. And fossil fuel-based power

³ Hartford Business. Financially wounded, pioneering CT Green Bank has a path forward. <http://www.hartfordbusiness.com/article/20180108/PRINTEDITION/301039919/financially-wounded-pioneering-ct-green-bank-has-a-path-forward>. January, 2018. Accessed July, 2018.

needs to be substituted out with affordable clean power. That is why clean power construction is the essential solution across transportation, buildings and electricity.

This requires financing and adoption of: renewable power generation, high-voltage transmission to carry power where it needs to go, strengthened distribution systems, battery storage, microgrids at critical facilities, and electrified transportation, particularly electric vehicles. In the power sector, generation can be centralized or distributed, and paired as necessary with storage. Micro-grids at critical facilities will ensure clean power is available round the clock at hospitals, water treatment plants, government buildings, and other critical infrastructure that must operate full-time, even during a crisis.

Clean transportation financing efforts should focus on where the emissions are, which is internal combustion vehicles that drive the most miles. This means shared vehicles (Uber, Lyft, etc.) and trucks and delivery vehicles. The Green Bank should offer financing specifically targeting the owners of those kinds of vehicles, whether individuals or fleets, to rapidly convert high-mileage vehicles from gas to electric. For example, the Green Bank could offer favorable financing for the purchase of the vehicle(s), and then offer loan forgiveness where the amount forgiven is tied to the number of miles driven.

Building electrification and efficiency is the third critical component. Natural gas fuel-switching, increased building envelope efficiency and related measures all have upfront costs and long-term savings that are ideally suited for long-term financing facilitated by a Green Bank. Industrial decarbonization should also be considered, though many decarbonization projects may involve more nascent technologies than traditionally addressed by a Green Bank.

Across all of these activities, maintaining or lowering the cost of energy to New Jersey households and businesses is essential. A clean energy transition depends on the reduction, not increase in prices. And this is truer now more than ever, as households struggle to make ends meet. The essential role of the Green Bank is to provide its financing in a way that can still attract private capital that earns its necessary return while also delivering affordable clean energy. If the Green Bank can make this equation balance with its flexible financing, then investment, job creation, electrification and job creation can occur quickly.

The state should rapidly prepare to invest in these activities because they also serve as a large engine for re-employment as the state emerges (likely this summer) from the virus emergency. Over a million workers in New Jersey are out of work, many from industries that will not soon bounce back and create jobs to rehire. That means the state must look to reshape its labor force and give its citizens new, better jobs of the future with good pay in safe condition. Construction of the state's clean power platform requires people of all skills. Sales, customer service, marketing, engineering, contracting and other skills are needed. The Green Bank can be the funding vehicle to put New Jersey back to work again.

During its initial years of operation, what kinds of products and services should a Green Fund prioritize, e.g., loan guarantees, securitization of privately issued loans, participation in project finance capital stacks, transaction documentation standardization?

Creating impactful financing and market development tools is the critical work of the Green Bank. The decision about what to do in the market should flow directly from the barriers the Green Bank is attempting to target. The

barriers may shift over time, and the Green Bank's tools should shift as well. Providing the Green Bank at the outset with the flexibility to be market-responsive is key.

Given this need for flexibility, CGC cautions against developing a "menu" of products and services early in the Green Bank development process. Instead, the early work of Green Bank development should focus on uncovering the real barriers in priority markets, and designing tools that target these barriers. This requires deep engagement with market participants. Barriers and their associated solutions are often non-obvious.

For example, when CGC began working with Green Banks on developing tools for increasing low- and moderate-income (LMI) community solar participation, there was a widespread belief that consumer credit was the key factor shutting consumers out of projects. A credit enhancement, therefore, was considered to be one of the best tools for increasing access to more customers. However, as CGC and its partners engaged more deeply with the market, it became clear that there were structural barriers to the development of LMI community solar projects in some markets, and that a credit enhancement alone would be insufficient to overcome these barriers. As a result, the Green Bank may provide a broader set of tools to the market, including providing direct project debt, assistance with site selection, and marketing to customers. The product and service identification process is something that the Green Bank should go through, and continually revisit, for each of its priority markets.

How should the State think about minimum performance requirements for a Green Fund? For example, should those requirements consider elements such as: the extent to which private capital is leveraged, the estimated amount of greenhouse gas emissions mitigation per dollar loaned, whether the Fund is operating on terms that ensure its sustainability, or the extent to which the Fund's lending activities are addressing Environmental Justice issues?

Long-term financial self-sustainability ought to be an operating goal of the Green Bank. During ordinary economic times, that means the entity should seek, within three years, to generate operating revenue sufficient to cover its operating costs. However, these are no longer ordinary economic times, and the types of investment the state's clean energy sector needs may mean that the Green Bank should set a longer target for achieving self-sustainability. If the Green Bank must make riskier investments and accept losses that would not be required during ordinary economic times, that is an acceptable trade off to help the state put people back to work while addressing climate change.

CGC strongly encourages the development and tracking of other performance metrics outside of financial sustainability. The Green Bank should measure private sector leverage, total investment (public and private), GHG impact, and jobs created, as minimum metrics. All New Jerseyans, of all income levels, should have access to clean, healthy and affordable clean energy. The Green Bank should absolutely prioritize access for low-income communities to serve Environmental Justice. This can be done a number of ways (specific products, more favorable loan terms, etc.) that should be considered in a more detailed analysis of the Green Bank's product-market-fit.

However, CGC generally recommends against establishing performance targets for metrics unrelated to financial sustainability. Doing so opens the door to several potential difficulties for Green Bank strategy and management, namely:

- *Confusion between tools and outcomes:* Many metrics that are relevant to track are not necessarily indicative of the impact the Green Bank is having on the market. Private leverage is one example. Leveraging in private capital can be an important tool for the Green Bank to stretch its dollars. However, leverage in and of itself is not necessarily a desired outcome of the Green Bank. Establishing a target around leverage encourages the Green Bank to deploy certain products (such as credit enhancements) rather than others (such as direct lending). This will lead to a change in the market prioritization of the Green Bank—not all markets are good fits for credit enhancements—irrespective of where Green Bank intervention is most needed.
- *Organizational drift away from more challenging markets:* In order to be catalytic in the marketplace, the Green Bank should be encouraged to take on projects and markets that are difficult. For example, the Green Bank may want to play a role in financing small deployments of earlier stage technologies such as storage. The greenhouse gas emissions per dollar in such a transaction may compare unfavorably to, for example, utility-scale solar. For small markets without a track record, more dollars will need to be spent on market development and transaction structuring. In addition, the greenhouse gas benefits of more frontier technologies are less easily quantified than for something like utility-scale solar. If the Green Bank is given a performance target around scale (e.g., in dollars or greenhouse gas emissions), there will be a natural tendency to prioritize projects that achieve those metrics, potentially at the expense of more challenging (but more catalytic) markets.
- *Conflict between performance targets:* Similar to the point above, some performance metrics may conflict with one another. For example, some projects targeting LMI households may offer lower emissions reductions per dollar spent than other projects. This could be due to, for example, additional costs associated with reaching customers or the need to offer lower rates to make projects affordable. This conflict opens the door to operational confusion at the Green Bank over which metrics to prioritize. It may lead to a situation where the Green Bank sets up activities that aim to address one metric, such as Environmental Justice, in a separate portfolio from its “core” business.

This is not to say that these potential risks cannot be thought through and mitigated. But careful consideration should be given to selecting other performance targets—especially if multiple performance targets are under consideration.