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November 1, 2013

Kathleen H. Burgess
Secretary to the Commission
New York State Public Service Commission
Empire State Plaza
Agency Building 3
Albany, NY 12223-1350

RE: Public Comments on the Petition of New York State Energy Research and Development Authority to Provide Initial Capitalization for the New York Green Bank [Case 13-M-0412]

Dear Secretary Burgess:

The Connecticut Clean Energy Finance and Investment Authority ("CEFIA"), is pleased to see that New York is establishing its own "Green Bank".

On behalf of the State of Connecticut and the Board of Directors of CEFIA – Connecticut's "Green Bank" – I am submitting the attached public comments pertaining to Case 13-M-0412 "Petition of New York State Energy Research and Development Authority to Provide Capitalization for the New York Green Bank" filed by NYSERDA on September 9, 2013.

The petition requests repurposing $165.6 million in uncommitted NYSERDA EEPS I and SBC III funds, uncommitted utility EEPS I funds, and NYSERDA RPS funds to provide the initial capitalization for the New York Green Bank ("NYGB"). The NYGB would use public dollars to mobilize private sector capital to stimulate the growth of New York's clean energy economy.

The public comments submitted by CEFIA are intended to:

- Provide background on CEFIA, to provide some context for our relation to the NYGB;
- Highlight some of the results experienced by Connecticut to date in launching its "Green Bank" that are relevant to the issues identified by NYSERDA in this petition;
- Acknowledge some of the challenges CEFIA experienced in establishing Connecticut's "Green Bank" so as to help the NYGB avoid or at least learn from those experiences – with a focus on administration, governance and personnel; and
- Identify areas of opportunity where CEFIA can partner with the NYGB – including product development market assessment and metrics and evaluation.

CEFIA looks forward to working with NYSERDA, the NYGB, and other key stakeholders to offer easier access to affordable capital that provides cleaner, cheaper, and more reliable sources of energy for our states while creating jobs and supporting local economic development.

Background
CEFIA was introduced by Governor Malloy as an integral part of Public Act 11-80, "An Act Concerning the Establishment of the Department of Energy and Environmental Protection and Planning for Connecticut's Energy Future".[1]

Governor Malloy's rationale for CEFIA was to:

- Create a flexible portfolio approach to clean energy in which the marketplace (not the government) picks winners and losers;
- Focus on deployment of commercially available technologies at scale to lower costs;
- Drive "all cost effective" energy efficiency in government, institutional, residential, and commercial and industrial sectors;
- Push for "deeper" energy efficiency – covering not just lighting but also heating, ventilation, air conditioning, insulation, windows, machinery, and appliances; and
- Move away from traditional "subsidy" approaches to a "finance" model – using limited government resources to leverage private capital.

In short, CEFIA was established to do more [clean energy deployment] with less [ratepayer resources] at a faster rate [than the subsidy-driven model].

As the nation's first state-level "green bank," CEFIA's mission is to support the Governor's and Legislature's energy strategies to achieve cleaner, cheaper, and more reliable sources of energy while creating jobs and supporting local economic development.

CEFIA is governed by an eleven (11) member Board of Directors that includes ex-officio members and Gubernatorial and Legislative appointees that oversee the quasi-public organization in accordance with its bylaws, operating procedures, comprehensive plan, and fiscal budget. CEFIA has a memorandum of understanding with Connecticut Innovations – Connecticut's quasi-public venture capital organization – to provide administrative support services, including accounting, HR, and IT departments. CEFIA has a staff of thirty (30) professionals focused on several goals in the residential, commercial and industrial, institutional, and infrastructure sectors.

CEFIA's goals are to:

- Attract and deploy capital to finance the clean energy[2] goals[3] of Connecticut, including:

[1] §99
[2] It should be noted that for the purposes of CEFIA, "clean energy" has the meaning as provided in Connecticut General Statutes Section 16-245n(a), as amended from time to time. This includes, but is not limited to renewable energy, financing energy efficiency projects, storage, distribution, alternative fuel vehicle infrastructure, and manufacturing.

  - Helping Connecticut become the most energy efficient state in the nation;
  - Scaling up the deployment of renewable energy in the state; and
  - Providing support for the infrastructure needed to lead the clean energy economy.

- Develop and implement strategies that bring down the cost of clean energy in order to make it more accessible and affordable to consumers.

- Reduce reliance on grants, rebates, and other subsidies and move towards innovative low-cost financing of clean energy deployment.

CEFIA's current balance sheet of current and non-current assets is approximately $100 million – $73 million of which came from repurposed funds of the Connecticut Clean Energy Fund (CCEF), CEFIA's predecessor, to capitalize CEFIA. CEFIA is funded on an ongoing basis by a $0.001 per kilowatt-hour surcharge on electric ratepayer bills that provides approximately $30 million of ratepayer capital a year without a sunset, allowance proceeds from the Regional Greenhouse Gas Initiative ("RGGI") for renewable energy and energy efficiency financing, access to bond proceeds from the state, federal competitive (i.e. SunShot Initiative) and non-competitive (i.e. ARRA-SEP) resources, and other sources.

Results to Date

CEFIA has been an official quasi-public organization by statute since July 1, 2011. In its first fiscal year – FY 2012 (i.e. July 1, 2011 through June 30, 2012) – the organization focused its efforts on governance (i.e. creating a Board of Directors, establishing a resolution of purposes, bylaws, and operating procedures), reorganization (i.e. rebuilding staff with the requisite skills and expertise in finance, developing employee policies, and forming a new organizational structure), strategic planning (i.e. developing a multi-year Comprehensive Plan and Budget), and new product development.

At the conclusion of FY 2013, nearly two (2) years after the passage of Connecticut's "Green Bank" legislation, CEFIA began to show results in terms of its key objectives:

Goal: Attract and deploy capital to finance the clean energy goals for Connecticut.

- **Results to Date:**

  - **Leverage Ratio** – attracted $180 million in private capital using $40 million of ratepayer funds, of which $20 million of ratepayer funds used are in loans (i.e. paying back over time), thus achieving a leverage ratio of about 10:1.

  - **Increase in Deployment** – deploying nearly 30 MW of new clean renewable energy as a result, including the largest fuel cell power plant in the United States.[4]

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[3] Goals are inclusive of Connecticut's clean energy policies (i.e. PA 98-28, PA 05-01, PA 07-242, PA 11-80, PA 13-298, etc.), including, but not limited to, the Integrated Resources Plan (§89 of PA 11-80), Comprehensive Energy Strategy (§51 of PA 11-80), and other clean energy public policies.

[4] A 15-MW fuel cell power plant manufactured by Fuel Cell Energy in Connecticut and installed on a redeveloped brownfield in a distressed community.

- **Doing More with Less and Faster** – CEFIA has proven that the "Green Bank" model works! Over $220 million is being invested in Connecticut's clean energy economy by putting only $20 million of ratepayer funds at risk as a result of the "green bank" model approach, resulting in an increase in the scale of clean energy deployment beyond the subsidy-driven model – "doing more with less and faster!"

- **Clean Energy Economy** – in FY 2013 CEFIA helped create over 1,200 jobs in one year (i.e. 400 direct and 800 indirect and induced) and reduce 250,000 tons of CO2 emissions over the life of the nearly 30 MW of clean renewable energy deployed.

Here is a breakdown of the FY 2013 financial, energy, economy, and environmental results from CEFIA's activities – see Table 1.

Table 1. CEFIA Financial, Energy, Economy, and Environmental Results in FY 2013

	FY 2013 Results
Private Capital Attracted	$181,275,225
CEFIA Capital Invested	$41,578,437
CEFIA Capital Expected to be Paid Back[5]	$21,493,106
CEFIA Capital at Risk[6]	$20,085,331
Total Private and Public Capital Invested	$222,853,662
Leverage Ratio	10:1
Clean Energy Deployed (MW)	26.8
Jobs Created – Direct, Indirect and Induced	1,150
CO2 Emissions Reduced (TCO2)	250,000

The "Green Bank" model being implemented by CEFIA is working – it is using limited ratepayer and taxpayer dollars to attract more private capital investment in clean energy deployment and thus supporting Governor Malloy's commitment to providing cleaner, cheaper and more reliable sources of energy while creating jobs and supporting local economic development in Connecticut.

Goal: Develop and implement strategies that bring down the cost of clean energy in order to make it more accessible and affordable to consumers.

- **Results to Date:**

  - **C-PACE Warehouse** – in the process of selling-off of the first pool of Commercial Property Assessed Clean Energy ("C-PACE") energy efficiency and renewable energy transactions in the country which provides commercial, industrial, and multifamily end-users with access to low-interest and long-term financing for clean energy improvements, including deeper energy efficiency

[5] CEFIA capital expected to be paid back (i.e. $21,493,106) includes loans and leases originated to finance clean energy projects.

[6] CEFIA capital at risk includes grants (i.e. $13,675,331) that are not returned as well as credit enhancements (i.e. $6,410,000) like loan loss reserves that are likely to be returned based on loan and lease repayment performance.

measures that aren't supported by conventional rebate programs. Nearly $20 million of transactions will have been approved by the end of 2013 using a $40 million CEFIA warehouse and a pipeline of over 100 transactions are currently in process.

- **<u>SunShot Initiative and Solarize Connecticut</u>** – launched a pilot program based on "best practices" from Portland, Oregon and Massachusetts that reduced the installed costs for residential rooftop solar PV by between 20-30% (i.e. $7,500 per home). As the costs of clean energy have fallen as a result of reducing the "soft cost" of customer acquisition, the installed capacity more than doubled versus the best year of the CCEF in FY 2010. CEFIA expects to double its best year (i.e. FY 2013) again this year (i.e. FY 2014) and is adapting the community-based model to see if it works for natural gas conversions and energy efficiency. Initial indications are that it is working for natural gas conversions.

Goal: Reduce reliance on grants, rebates, and other subsidies and move towards innovative low-cost financing of clean energy deployment, has resulted in:

- **Results to Date:**

    - **<u>Residential Sector</u>** – launching of four (4) residential sector financing products – the Smart-E Loan, Cozy Home Loan, CT Solar Lease, and CT Solar Loan – in partnership with nearly 15 local, state, regional, and national financial institutions. These financing products support renewable energy and energy efficiency, as well as other technologies that are consistent with the public policy goals outlined in Connecticut's Comprehensive Energy Strategy (i.e. EV recharging stations, natural gas conversions, etc.). It should be noted that in 2013, Connecticut passed on bill repayment legislation for residential sector financing with shut-off and staying with the meter provisions. To date, CEFIA has trained approximately 100 installers on these products, and used $15 million of ratepayer and taxpayer funds to attract $75 million of private capital investment.

    - **<u>Commercial and Industrial Sector</u>** – launching of C-PACE in just a little more than one year by onboarding 65 of 169 cities and towns representing 75% of the eligible commercial, industrial, and multifamily marketplace. The C-PACE portfolio is about 45% energy efficiency, 35% renewable energy, and 20% both, with commercial office buildings comprising 40% of the building types, 15% from multifamily, 15% from industrial, 10% retail, 10% non-profit, and the remaining in educational, warehouse and storage, hospitals, and public assembly buildings.

    - **<u>Infrastructure Sector</u>** – financing the largest utility scale fuel cell project in North America, a 15-MW fuel cell project in a distressed municipality located on a reclaimed brownfield site. The project attracted $65 million of private capital investment from Dominion Resources, Inc. and created over 150 jobs in manufacturing, construction, and servicing of the fuel cell equipment.

By providing easy access to affordable capital, CEFIA has demonstrated through several proofs of concept the potential of the "Green Bank" model to do more with less and at a faster pace. In FY 2013, CEFIA's activities have resulted in the creation of 1,150 direct, indirect and induced jobs in a year and the reduction of 250,000 tons of carbon dioxide emissions over the life of the projects. Connecticut's "Green Bank" is helping make clean energy more accessible and affordable to consumers, building business for and creating jobs by contractors, and creating opportunities for local, regional, national and international capital providers to invest in clean energy in Connecticut.

Challenges

Despite these successes, CEFIA experienced numerous challenges over the past two years in establishing Connecticut's "Green Bank". We would like to highlight these challenges for the PSC so as to raise the level of awareness of issues that may arise and how potential barriers can be overcome in a quick and efficient manner.

These challenges include:

- **Administration** – CEFIA is a separate quasi-public organization that is capitalized by a repurposed pool of resources from the CCEF. This is different than the NYGB, which is being established as a new division of NYSERDA. Given that the activities of the NYGB are quite different than the traditional programs of NYSERDA, it is reasonable that the NYGB operate as a division of NYSERDA for administrative purposes only (i.e. technical, administrative, financial/accounting, etc.) in the short-term (i.e. one to two years). Over time, it will want to become separate with its own governing authority so that it can conduct New York's clean energy financing business with a level of flexibility that keeps it relevant to private sector partners. CEFIA has a Memorandum of Understanding (MOU) with Connecticut Innovations (CI) that outlines the administrative support it provides and would advise that NYSERDA and the NYGB execute a similar agreement to outline their mutual understandings.

  Here is a breakdown of the administrative support services that NYSERDA will provide to the NYGB based on the filed petition versus what CI provides for CEFIA currently under an MOU – see Table 2 below.

Table 2. Comparison of Administrative Services Provided by NYSERDA for NYGB versus CI for CEFIA

Administrative Services	NYSERDA for NYGB	CI for CEFIA
Technical	X	
Financial/Accounting	X	X
Contracting	X	
Human Resources	X	X
Communications	X	
Marketing	X	
Information Technology	X	X
Legal	X	

Similarities

There are several areas where CEFIA shares the same administrative support services based on the NYSERDA petition – financial/accounting, human resources, and information technology. With regards to financial/accounting, CEFIA's new "Green Bank" mission has required a complete transition of its financial statements. Working alongside CI, we have our own separate statements that are vastly different than the former CCEF, but CI provides the financial and accounting support we need. So long as NYSERDA agrees that new books will be necessary to account for different operations of the NYGB, a similar arrangement makes sense. On human resources, CEFIA works closely with CI on staff searches and employee policies and procedures. CEFIA has restructured more than 50 percent of the staff that was at the CCEF. CEFIA has defined what staff skills and expertise it needs for its new mission and CI has provided the search services to deliver. And lastly, CEFIA shares CI's information technology infrastructure. Given that CEFIA now operates in two locations – one in close proximity to Stamford's financial hub to attract talent – CI has been able to deliver solutions to allow for online meetings.

Differences
There are several areas where CEFIA differs from the NYSERDA petition with respect to administrative support services for the NYGB – technical, contracting, communications, marketing, and legal. With respect to technical support, CEFIA maintains several staff members with advanced degrees in engineering and experience with project development. Since CEFIA no longer supports early stage technology ventures, staff technical expertise is focused on engineering as it applies to project deployment to assist with understanding the risks of project financing. With regards to contracting, CEFIA has its own operating procedures that were brought before the Connecticut Law Journal for public comment. These procedures specify how we go about contracting so as to remain flexible and ensure responsiveness to market developments and business needs, while balancing our fiduciary responsibility to the Connecticut ratepayer for the appropriate management of funds. With regards to communications and marketing, CEFIA maintains its own identity given the different non-energy related mission of CI. This may not be the case between NYSERDA and the NYGB as you share the same statewide energy policy goals. If NYGB intends to maintain a separate and more commercial identify than the larger NYSERDA, it should consider establishing a separate set of marketing and communications documents. And lastly, with regards to legal, CEFIA has its own internal counsel, while CI subcontracts out that work. Given the complexity of transactions and responsive business nature of CEFIA, we felt it was important to have our own independent counsel – in fact General Counsel and Chief Legal Officer – for transactions, governance, policy and regulatory matters that can be accessed and responsive on a daily basis. This expertise is different than the regulatory compliance skills that likely reside within NYSERDA already, and thus it would be our recommendation that the NYGB source and hire its own counsel that can work in coordination with NYSERDA's legal staff.

- **Governance** – the establishment of a NYGB Advisory Committee to review the plans for and operations of the NYGB, without any voting authority poses a challenge. Not only will the President of the NYGB have to manage two different governing authorities – the NYSERDA Board and the NYGB Advisory Committee – but, there may be times when the NYSERDA Board disagrees with the NYGB Advisory Committee. The CCEF was a division of CI before it became a separate quasi-public authority through CEFIA. The CCEF had an Advisory Committee that experienced many challenges with the CI Board when they disagreed on management, operational, transactional, policy, and other important matters. This caused the CCEF unnecessary disruptions. Now that CEFIA is its own quasi-public authority with a Board of Directors with full voting authority, there have been no issues with respect to CI and its role in providing administrative services to CEFIA.

  To overcome this challenge, CEFIA recommends that NYSERDA, within its statutory framework and organizational bylaws current or amended, create flexibility for the NYGB. For example, the following things might be considered:

- Creating a Vice President for Financing and designate the President of the NYGB to this seat with decisional authorities as other Vice Presidents (i.e. Operations and Energy Services, Technology and Strategic Planning, etc.) of NYSERDA; and/or

- Create a Green Bank Committee similar to the other NYSERDA committees (i.e. Audit and Finance, Program Planning, Waste and Facilities Management, Governance, etc.) with requisite approval authority under quorum rules. The chair of this subcommittee would be designated by the President of NYSERDA.

- Establish the NYGB outside and independent of NYSERDA. NYSERDA would still need to maintain a close relationship with the NYGB and would have influence on NYGB's strategic direction because the NYGB will be required to solicit its funding through NYSERDA.

In the end, the NYGB should be able to transact its business with minimal disruption or additional bureaucracy or approvals. They need to act at the speed of business and this will necessitate a fresh look at transactional governance for contracting and procurement approvals. Successful public private partnerships will require flexibility and the ability to react quickly to opportunities as they arise.

- **Personnel** – the expectations of a state-level "Green Bank" delivering on its promise in a short period of time are extraordinary. Finance industry professionals know that it takes time to develop financing products that serve specific market needs. The demands on the incoming President of the NYGB will be extreme to deliver immediate results. To that end, based on experiences in Connecticut, we recommend the following three positions be considered priority hires for the NYGB:

  - **General Counsel** – given the complex nature of transactions and the need to be responsive to an organization in start-up mode, having an on-staff general counsel who can ensure that decisions are being made within a defined set of processes and procedures while balancing the need for the NYGB to be responsive and open for business with the finance industry is important.

  - **Chief of Staff or Chief Operating Officer** – recognizing that the NYGB is starting anew, there will be a need for someone who works closely with the President to hire staff with the requisite expertise while balancing organizational resources and compensation policies. CEFIA's Chief of Staff serves an operations function that is necessary when building an organization.

  - **Chief Investment Officer** – developing financial products is the core to the success of the "Green Bank" model. The hiring of an industry expert in finance (i.e. investment banking, public finance, etc.) will establish the organization's presence with the finance industry and allow the President to build the organization while ensuring that it supports the overall policy objectives of the state.

It takes time to hire quality personnel. It will take 3 to 6 months to find and hire these individuals, while simultaneously the expectations on the NYGB will continue to increase.

The aforementioned are a few of the challenges that CEFIA expects the NYGB will face as it establishes itself. CEFIA offers its assistance to the PSC, NYSERDA and the NYGB as it proceeds forward.

Opportunities

There are several areas of opportunity where CEFIA can work with the NYGB to advance the energy policies of Connecticut and New York respectively. These opportunities include:

- **Product Development** – Connecticut and New York face similar challenges. As neighbors, we experience related issues and pursue associated energy policy approaches. The following are areas where CEFIA believes product development with the NYGB can and should be coordinated:

    - **Micro Grids** – as a result of recent natural disasters, our states are pursuing the deployment of micro grids to ensure that critical facilities are powered during emergency time periods. We could create a regional fund to finance the clean energy generation (i.e. fuel cells, CHP, etc.) and distribution systems for our micro grids through a standardized process.

    - **C-PACE** – to build scale with commercial and industrial financing of renewable energy and energy efficiency, we could standardize our C-PACE programs to build larger warehouses of C-PACE transactions to attract lower cost and longer term private capital investment into our states.

    - **On Bill Repayment** – to build scale with residential financing of renewable energy and energy efficiency, we could standardize our on bill repayment programs and combine loan and energy performance data to hasten the pat to securitization of these consumer obligations and achieve similar synergistic benefits as C-PACE coordination would provide.

    - **Financing Structures** – through public-private partnerships, we could develop specialized products with tax equity investors and debt providers to provide third-party financing at a lower cost of energy to end-users for solar PV, solar hot water, ground source heat pumps, fuel cells, anaerobic digesters, electric vehicle infrastructure, and other technologies. Through New York's creative use of the Clean Water Fund, we can develop financing structures for the public finance market and institutional investors that would provide our states with access to more affordable long-term capital.

  These are but a few areas of product development where CEFIA and the NYGB can partner. Also, working together to standardize contracts is important towards the scalability of clean energy assets as well.

- **Market Assessment** – understanding the market potential for clean energy in our states is important to determining the level of private capital necessary to attract to our efforts. The scope of work by Booz $ Co. did not include a thorough assessment of end-user demand for financing in various market segments. Given the energy policies of our states, there may be opportunities to share resources and assess these markets together. CEFIA's efforts to attract private investment in Connecticut support the implementation of the Comprehensive Energy Strategy. Having a better understanding of the various end-user demand segments within that strategy and their interest in financing is important to the success of our programs.

- **Metrics and Evaluation** – CEFIA agrees with the energy, environmental and economic, financial, and market transformation performance indicators identified by NYSERDA in the petition. "Green Banks" are new entities with different objectives and approaches than the conventional subsidy model for market development. NYSERDA and CEFIA have been active participants in the State Energy Efficiency Action (SEEAction) Network[7] Financing Solutions Working Group (FSWG). The FSWG has recently been focused on facilitating a discussion on energy efficiency and renewable energy financing performance data (i.e. loan repayment performance, energy savings performance, etc.) collection and access. Through our respective organizations we can work together through a national effort to begin to define what success is for a state-level "Green Bank".

These are a few areas of opportunity where CEFIA and the NYGB can work together to support our state's efforts to provide cleaner, cheaper and more reliable sources of energy while creating jobs and supporting local economic development.

Conclusion

CEFIA appreciates to opportunity to provide the PSC, NYSERDA, and the NYGB with these public comments. The creation of the NYGB represents an extraordinary opportunity for Governor Cuomo to "do more with less and faster". CEFIA looks forward to working with the NYGB for years to come so that together we might provide easy access to affordable capital to support the development of our clean energy economies.

Respectfully submitted,

Bryan Garcia
President and CEO

[7] The State and Local Energy Efficiency Action Network (SEE Action) is a state- and local-led effort facilitated by the U.S. Department of Energy and the U.S. Environmental Protection Agency to take energy efficiency to scale and achieve all cost-effective energy efficiency by 2020. SEE Action offers publications, events, and technical assistance to state and local decision makers as they provide low-cost, reliable energy to their communities through energy efficiency.