NEW YORK STATE OF OPPORTUNITY. | NY Green Bank A Division of NYSERDA

NY Green Bank

Metrics, Reporting & Evaluation

Quarterly Report No. 10

(Through December 31, 2016)

Case 13-M-0412

February 15, 2017

Contents

Tables & Figures

Schedule

Transaction Profiles:

- *Northport-East Northport Union Free School District (Energy Efficiency)*
- *Solar City (Residential Solar)*
- *New York City Housing Authority (Energy Efficiency)*
- *Plug Power (Hydrogen Fuel Cells)*
- *Hebrew Home for the Aged at Riverdale (Energy Efficiency)*

1 Performance at a Glance – As of December 31, 2016

Stimulating New Clean Energy Proposals in the State	NY Green Bank ("**NYGB**") has received **$1.8 billion** in investment proposals since inception.
Strong Active Pipeline	The Active Pipeline of potential investments proceeding to close is **$597.7 million**.[1]
Portfolio Driving Material Clean Energy Investments Across NYS	NYGB's investments support clean energy projects with a total project cost of up to ~**$1.3 billion** in aggregate, based on overall NYGB investments to date of **$304.7 million**.
Mobilizing Private Capital	NYGB's investment portfolio represents an expected mobilization ratio of total project costs to NYGB funds in excess of the target level of **3:1**, which will be realized as planned clean energy projects are successfully implemented by NYGB's clients and counterparties. Over 10 years, assuming periodic reinvestment in comparable transactions, the expected mobilization ratio remains on track to meet or exceed **8:1**.
Revenue Growth Paving the Way to Self-Sufficiency	Continued revenue growth – **$9.6 million** in revenues has been generated since NYGB's inception.
Contributing to CEF Objectives, REV & the CES	NYGB's investments to date drive estimated gross lifetime GHG reductions of up to **5.4 million metric tons**, equivalent to removing more than **60,000 cars** from the road for a period of **19 years**.

[1] Note that at any time, the value of the Active Pipeline is separate from the value of the investment portfolio. So, for example, as of December 31, 2016, the $597.7 million in Active Pipeline does not include the $304.7 million in closed transactions that comprises NYGB's investments to date.

2 Introduction

This Quarterly Report ("**Report**") is filed by NYGB with the New York State Public Service Commission (the "**Commission**") pursuant to the Metrics, Reporting & Evaluation Plan developed in consultation with the New York State Department of Public Service ("**DPS**") and filed with the Commission[2] (the "**Metrics Plan**").

Defined terms used in the text of this Report but not separately described have the meanings respectively given to them in the Metrics Plan.

3 Business Update

3.1 Overview

NYGB's investment activities fall into two broad categories, respectively relating to:

(a) Transactions that have closed, which collectively comprise NYGB's investments – the "**Portfolio**"**;** and

(b) Transactions that are in process but not yet closed, which collectively comprise NYGB's "**Pipeline**".

Each proposed NYGB investment is categorized by the stage it has reached in NYGB's internal processes.

NYGB closed **six new investments** during the quarter ending December 31, 2016, adding **$106.2 million** to NYGB's growing investment portfolio. These transactions are discussed in Section 3.2.[3]

NYGB's overall transaction status and Active Pipeline are summarized in Figure 1,[4] showing that since inception through December 31, 2016:

(a) **$1.8 billion** of proposals have been received and evaluated by NYGB's Scoring Committee;

(b) **$1.6 billion** of proposals have passed Scoring Committee evaluation – representing potential investments that meet NYGB's mandate and proposal evaluation criteria;

(c) **$686.1 million** of proposals have received Greenlight Committee recommendation for advancement;

(d) **$342.1 million** of proposals have been vetted by the IRC and approved by NYSERDA's President & CEO; and

(e) **$304.7 million** of transactions have been closed - comprising the Portfolio - mobilizing public and private investments to support up to ~**$1.3 billion** in total project costs for new clean energy deployment in the State.

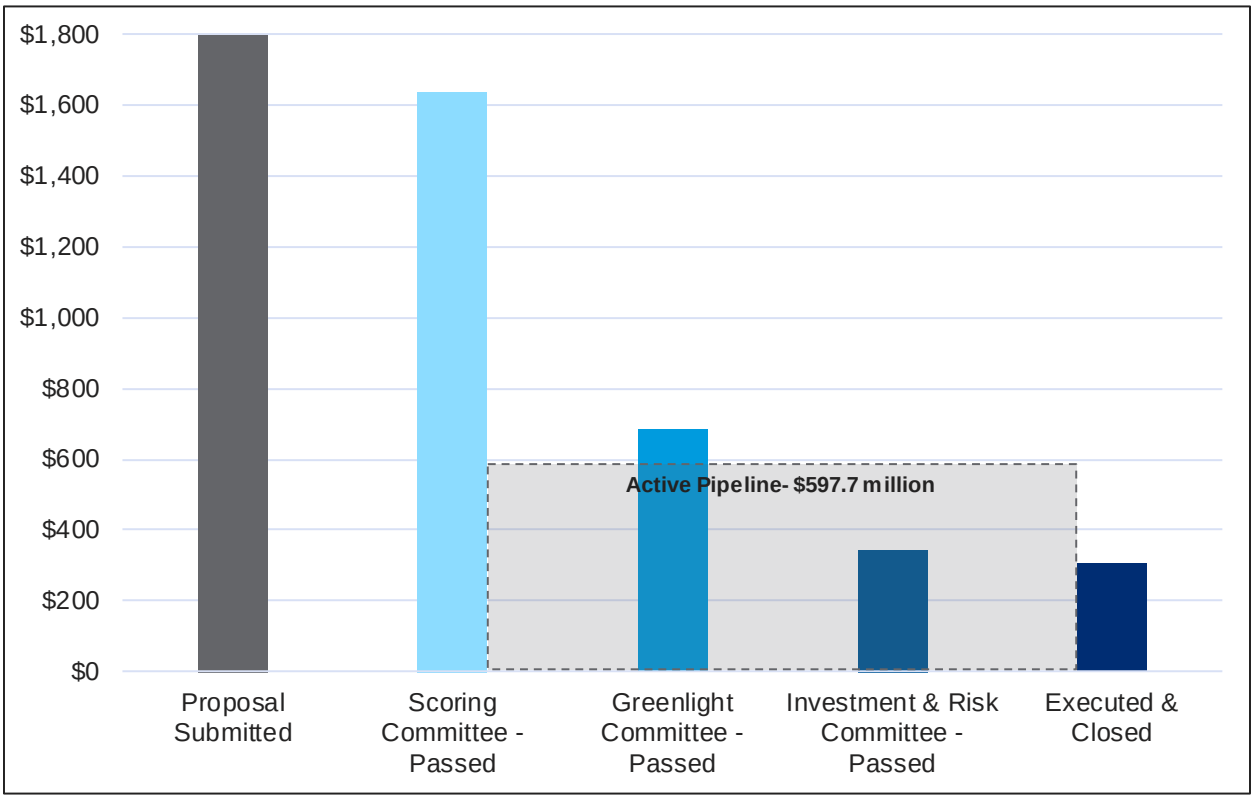
Also as shown in Figure 1, NYGB currently has an Active Pipeline of **$597.7 million**.

[2] Case 13-M-0412, "NY Green Bank – Metrics, Reporting & Evaluation Plan", Version 3.0, dated June 20, 2016.

[3] NYGB's success in building its investment portfolio consistent with its mission and investment criteria in 2016 is summarized in the recent press release entitled "NY Green Bank Announces the Closing of 13 Transactions in 2016, Spurring Thousands of Clean Energy Projects" available on NYGB's website at www.greenbank.ny.gov/News/In-The-News.

[4] Note that all these amounts change over time as proposals and transactions evolve.

Figure 1. Transaction Status & Active Pipeline ($ Millions)



3.2 Investment Portfolio

3.2.1 Highlights

In the period covered by this Report, NYGB closed six transactions, respectively sponsored by Bank of America Merrill Lynch (two investments – Northport-East Northport Union Free School District and Hebrew Home for the Aged at Riverdale), SolarCity (also two investments - a term loan facility and a revolving credit facility), the New York City Housing Authority and Plug Power. Each transaction, combined into NYGB's growing portfolio, contributes to the primary CEF outcomes of GHG emissions reductions, customer bill savings, energy efficiency, clean energy generation and mobilization of private sector capital.[5] In turn, the CEF objectives support the NYS Clean Energy Standard ("**CES**") goal of 50% energy generation from renewable sources, and the State Energy Plan ("**SEP**") goal of 23% reduction in energy consumption by buildings from 2012 levels, which together further the SEP goal of 40% reduction in GHG emissions from 1990 levels by 2030.

[5] As set out in the CEF Order (Cases 14-M-0094 et al.) issued and effective on January 21, 2016, page 40.

3.2.2 New Investments

Bank of America Merrill Lynch & Northport-East Northport Union Free School District - Energy Efficiency Retrofits

- *Reduces up to 51,000 metric tons of GHG emissions over the ~24-year life of the underlying efficiency measures*
- *Reduces electricity use by up to 50,000 MWh over the life of the underlying measures*
- *Achieves energy savings from fuel of up to 460,000 MMBtu over the life of the underlying measures*

On October 21, 2016, NYGB and a subsidiary of Signature Bank ("**SPFC**") co-invested in a $12.9 million lease - including approximately $8.7 million from NYGB and approximately $4.2 million from SPFC – to finance energy improvements (the **"Northport Project"**) that will replace existing infrastructure in nine schools and an administrative building in the school district (the "**District**").[6] The Northport Project includes lighting retrofits, building envelope improvements, energy management systems, water conservation units, and ventilator refurbishments. The Northport Project is expected to save the District ~$1.1 million per year, with a portion of those savings used for lease payments and the remainder going directly to the District.

Bank of America Merrill Lynch ("**BofA Merrill**") arranged and structured the lease in what constitutes the first transaction under NYGB's and BofA Merrill's broader co-financing arrangement, whereby NYGB will support certain transaction types such as deeper energy efficiency retrofits requiring longer term leases. NYGB's participation in this transaction and future leases with BofA Merrill and other arrangers enables the aggregation of portfolios that private capital providers can participate in at scale. NYGB's role as an aggregator enables larger institutions to participate in small to mid-sized transactions that would otherwise not meet scale thresholds. Over the long term, the goal of the strategy is to bring greater private sector capital into the clean energy marketplace and ultimately increase liquidity and drive additional volume in the energy efficiency and renewable energy sectors, leading to broader and faster completion of similar transactions in New York.

Solar City - Medium Term Lending & Construction Facility for Residential Solar Financing

- *Reduces up to 920,000 metric tons of GHG emissions over the 25-year life of the underlying projects*[7]
- *Generates up to 1.7 million MWh of renewable energy over the life of the underlying projects*
- *Increases renewable energy installed generation capacity by approximately 54.0 MW (~7,000 systems across the State), while refinancing an existing portfolio of up to 13 MW in NYS (~ 1,800 residential homes)*

In the Quarter to which this Report relates, NYGB closed two separate investments with SolarCity. On December 30, 2016, NYGB committed $20.0 million to SolarCity's existing Revolving Credit Facility (the "**RCF**"). The RCF is used by SolarCity to build new solar projects, of which a significant portion are to be located in NYS. NYGB's participation accelerates SolarCity's ability to develop NYS projects and broadens the availability of construction financing for distributed energy projects across the State.

SolarCity engaged BofA Merrill as Mandated Lead Arranger and Sole Bookrunner for a senior secured Term Loan Facility (the "**TLF**") to finance a static pool of solar assets. The TLF originally closed in January 2016 with three lenders. Separately, on December 9, 2016, NYGB committed $30.0 million to upsize the TLF, as the facility was expanded to add new solar assets. NYGB's participation in the TLF

[6] The press release, entitled "NY Green Bank Announces Financing Deal to Reduce Annual Energy Costs by $1 Million for Long Island's Northport School District" is available on NYGB's website at www.greenbank.ny.gov/News/In-The-News.

[7] NYGB's practice in calculating and reporting energy and environmental benefits expected from syndicate transactions is to report only those benefits referable to developments within New York State.

provides SolarCity additional financial flexibility, and helps to strengthen the medium-term lending market as an alternative to refinancing through the traditional asset-backed security market or private placement market. This transaction demonstrates NYGB's continued success in enhancing liquidity, decreasing the cost of capital for solar developers and installers, and helping reduce the cost of solar power to customers.

SolarCity sought NYGB's participation in the RCF and the TLF to provide additional capital to support SolarCity's solar development efforts and lower its cost of financing for solar energy systems, including in NYS. The two transactions are both successful replications of NYGB's participation in similar loan structures, consistent with a key NYGB goal to scale up market volume and improve private sector participation and confidence in clean energy investments.

New York City Housing Authority ("NYCHA") – Financing Energy Efficiency Retrofits in Low-to-Moderate Income ("LMI") Housing Developments

- *Reduces up to 79,000 metric tons of GHG emissions over the 12-year life of the underlying efficiency measures*
- *Reduces electricity use by up to 150,000 MWh over the life of the underlying measures*

On December 23, 2016, NYGB made a bridge loan commitment of $11.0 million to undertake energy improvements, primarily through the replacement of conventional lighting equipment with cleaner, more efficient LED lighting in 18 master-metered multifamily developments in New York City (the **"NYCHA Project"**). The NYCHA Project includes 30 different LED technologies, and is expected to generate savings of 10% - 15% of current annual energy expenses for the building owner. The NYGB financing is expected to be refinanced by July 31, 2017.

NYGB financing will create a borrowing history for a relatively new structure that can be replicated with NYCHA and other NYS public housing authorities (**"PHAs"**) seeking to utilize private capital financing for similar types of building upgrades. Further, NYGB's participation in this transaction and potential future short term loans with PHAs demonstrates to private capital sources (such as commercial banks) that there is demand for such a loan product and provides borrowing history for NYCHA and similar PHAs which seek to replicate the transaction structure.

Transactions of this nature can help drive growth in the market for financing of LMI building energy efficiency by demonstrating a structure through which PHAs can successfully and scalably finance improvements benefiting LMI tenants in PHA-owned buildings.

Plug Power – Enabling Growth & Expanding Financing for Hydrogen Fuel Cell Projects

- *Reduces up to 53,000 metric tons of GHG emissions over the 10-year life of the underlying projects*
- *Generates up to 89,000 MWh of renewable energy over the life of the underlying projects*
- *Increases renewable energy installed generation capacity by up to 2.9 MW over the life of the* underlying projects

On December 23, 2016, NYGB provided a $25.0 million term loan facility (the "**Facility**") to Plug Power ("**Plug**") to finance the deployment of fuel cell systems powering forklifts in distribution centers across NYS.[8] The Facility allows Plug immediate access to needed capital that is currently held as cash collateral in restricted accounts, rather than waiting for it to be released over time as payments are made through sale-leaseback arrangements with tax equity providers. NYGB's participation in this transaction is significant because it enables Plug to deploy more systems and convert more forklift fleets in a shorter amount of time than would otherwise be possible under their current financial arrangement. In particular,

[8] The press release, entitled "NY Green Bank Announces Its First Transaction to Expand Fuel Cell Use at Businesses Across New York State, Creating Up to 100 Jobs" is available on NYGB's website at www.greenbank.ny.gov/News/In-The-News.

this transaction will enable Plug to expand deployments, adding up to 1,300 GenDrive units with commercial customers, replacing current infrastructure with cleaner, more efficient alternatives, while growing its NYS labor force by nearly 100 new employees.

Plug is a designer and manufacturer of fuel cell systems and fueling infrastructure that specializes in deploying its fuel cell propulsion systems across entire fleets of forklifts and transportation vehicles within distribution centers throughout the U.S. Plug deploys these systems and then provides a suite of services to operate them – such as procuring the hydrogen fuel the systems run on, and providing ongoing operations and maintenance to keep the systems running at a guaranteed uptime level – all as a single turnkey offering provided to the owner of the manufacturing site or distribution center. Many of Plug's current customers are major corporations in the automotive manufacturing, retail distribution and consumer goods industry.

This transaction constitutes NYGB's first investment in the fuel cell industry, which is still relatively small nationally but growing at an above-market average rate. As a result, many firms in the industry experience high borrowing costs. NYGB participation in the transaction aims to address those high costs for Plug and other similar companies in the sector by making otherwise restricted capital available to Plug, so they can continue scaling their business, including to the levels where capital costs are expected to be significantly reduced.

Bank of America Merrill Lynch & Hebrew Home for the Aged at Riverdale - Energy Efficiency Retrofits

- *Reduces up to 1,900 metric tons of GHG emissions over the 20-year life of the underlying efficiency measures*
- *Reduces electricity use by up to 8,600 MWh over the life of the underlying measures*
- *Increases CHP installed capacity by 1.6 MW*

On December 29, 2016, NYGB and BofA Merrill entered into a co-financing of the installation of a combined heat and power ("**CHP**") system at the Hebrew Home for the Aged at Riverdale ("**HHAR**"), in New York City as part of a larger arrangement and aggregation strategy. This transaction will save HHAR an estimated $1.6 million annually by replacing current infrastructure with cleaner, more efficient alternatives.

NYGB and BofA Merrill are co-investing in an approximately $14.0 million tax-exempt equipment lease issued under the Dormitory Authority of the State of New York's (**"DASNY"**) tax-exempt leasing program (**"TELP"**). The lease will finance energy improvements (the "**HHAR Project**"), that will replace existing infrastructure at the Riverdale facility with cleaner, more efficient equipment, generating substantial savings for HHAR immediately and throughout the lifetime of the equipment. The lease enables tax-exempt financing for the HHAR Project and reduces borrowing costs to HHAR. NYGB's participation in this transaction is significant because it extends the tenor of the lease beyond the number of years BofA Merrill would normally finance, enabling deeper energy retrofits and less expenditures for HHAR – resulting in savings of approximately $1.6 million per year. A portion of those savings will be used for lease payments and the remainder will go directly to HHAR.

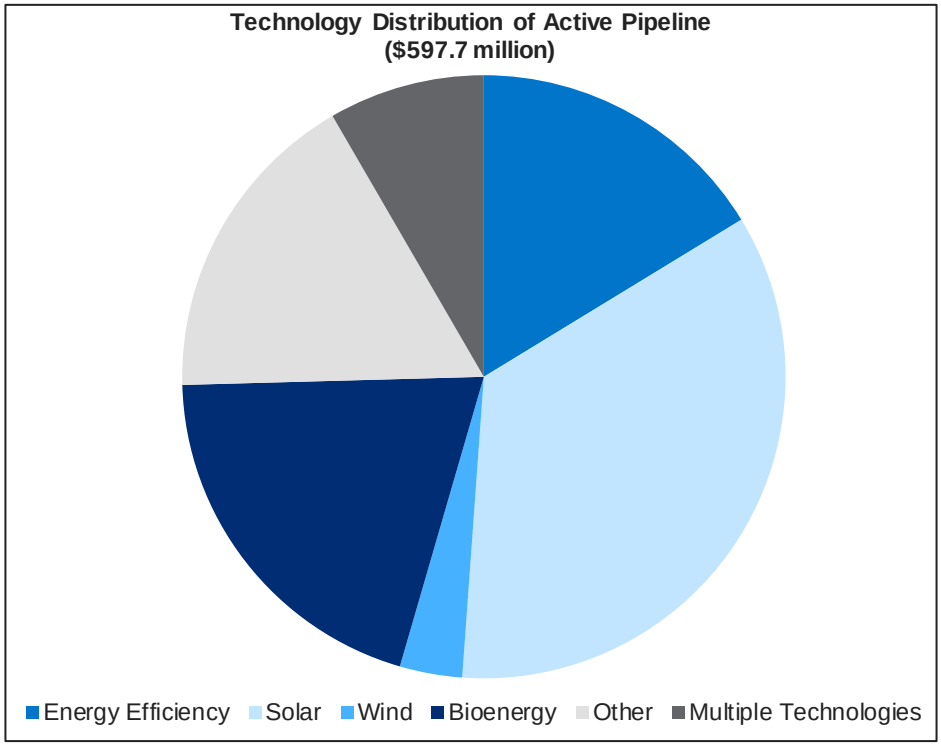
This constitutes the second transaction under NYGB's and BofA Merrill's broader co-financing arrangement, whereby NYGB supports transaction types such as deeper energy efficiency retrofits requiring longer term leases. This transaction will drive growth in the small to mid-sized energy efficiency leasing market by providing longer-term financing that enables immediate and ongoing savings for commercial and/or non-profit entities. Longer term financing broadens the scope of energy improvement projects that entities can undertake, ultimately leading to the deployment of deeper retrofits in commercial and non-profit buildings throughout New York.

Further details on all NYGB's investments are available in the Transaction Profiles publicly available on NYGB's website at www.greenbank.ny.gov/Investments/Transaction-Profiles, and the Transaction Profiles for the investments described above are also included in the Schedule to this Report.

3.3 Active Pipeline

Demand for NYGB investments and participation in transactions is evidenced by proposals that have been submitted to NYGB in response to its open solicitation for investment proposals (the "**Investment RFP**").[9] Through December 31, 2016, proposals requesting $1.8 billion of NYGB capital have been received, in connection with total proposed clean energy investments in New York State of multiples of that amount. NYGB's Active Pipeline at the end of the period to which this Report relates is $597.7 million. Figures 2, 3 and 4 below show the distribution of proposed investments in NYGB's Active Pipeline by technology, end-use customer segment and geography.

Figure 2. Active Pipeline by Technology



[9] Clean Energy Financing Arrangements – Request for Proposals (RFP) No. 1, available at www.greenbank.ny.gov/Partnering-With-Us/Propose-an-Investment.

Figure 3. Active Pipeline by End-Use Customer Segment

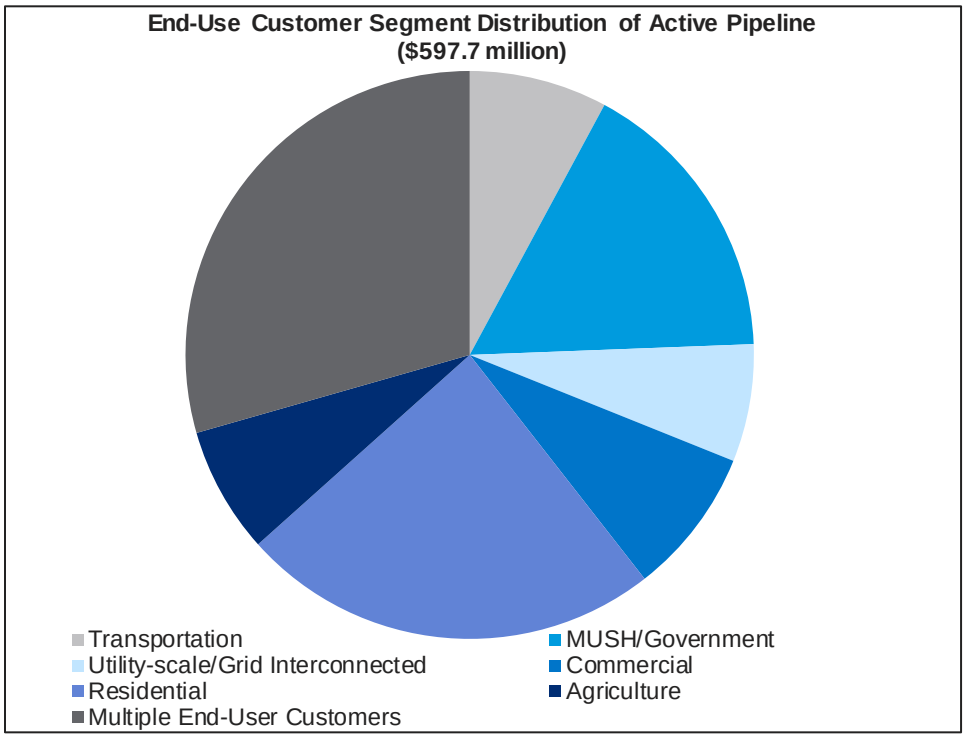
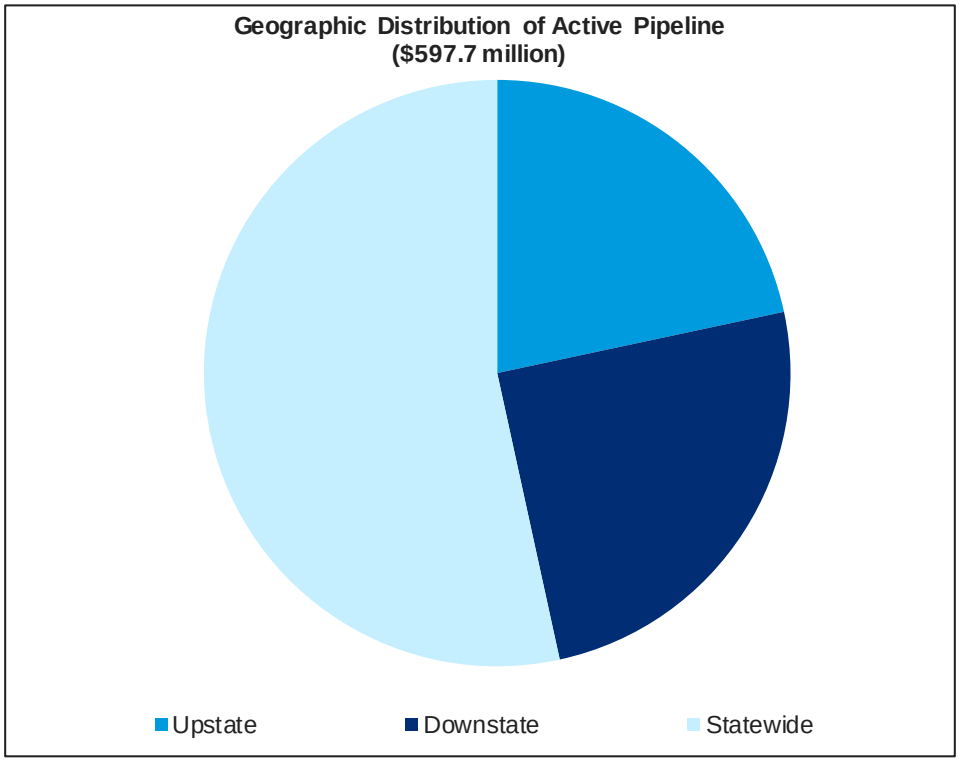


Figure 4. Active Pipeline by Geographic Distribution



3.4 Operational & Risk Matters

In the last calendar quarter, in addition to those matters referenced elsewhere in this Report and ongoing "business as usual" activities (e.g., origination, execution and routine outreach), NYGB's achievements include:

(a) Public Reporting & Metrics: Filing with the Commission, on November 15, 2016, the Quarterly Report for the period ending September 30, 2016. This report is available at www.greenbank.ny.gov/About/Public-Filings.

(b) Continuing Stakeholder Outreach & Communications: Highlights of specific outreach initiatives in the period to which this Report relates include:

i. Participation in 16 events – including NYSERDA's Annual Multifamily Summit, Green Bonds Americas 2016, and several Energy Seminars, together with multiple meetings around the State (Syracuse, Albany, Long Island, Binghamton, and Poughkeepsie) as a part of NYGB's annual Statewide meeting series events;
ii. Hosted several industry roundtables for market participants from the storage, commercial and industrial energy efficiency, and community distributed generation sectors, with a focus on financing gaps and market barriers hindering wide-scale deployment in these sectors across the State;
iii. Organized and hosted a working group with representatives from New York's Investor-Owned Utilities to explore opportunities for collaboration with NYGB, including in connection with REV demonstration projects;
iv. Published NYGB's 2016 Fall Newsletter, outlining recent investments, as well as other NYGB developments; [10]
v. Held the first in a series of webinars to review NYGB's quarterly results on November 29, 2016. [11] Similar webinars presenting NYGB's most-recent Quarterly Reports will generally occur within a month after each Quarterly Report is filed; and
vi. In November 2016, NYGB launched an official LinkedIn page to keep interested stakeholders, counterparties and others updated on job openings and RFP opportunities with NYGB, as well as other organizational updates.

(c) International Green Bank Network: NYGB continues to demonstrate NYS's leading role in clean energy finance through its participation in the International Green Bank Network. In a press release issued on October 26, 2016,[12] the network announced that in its first two years, the six founding members (including NYGB) have closed transactions expected to mobilize over $22.0 billion for clean energy projects around the globe, putting them on pace to exceed their collective goal of $40.0 billion over five years announced in 2014.

(d) Advisory Committee: An Advisory Committee meeting was held on October 25, 2016. Information regarding NYGB's Advisory Committee – including its membership and charter - is accessible on NYGB's website at www.greenbank.ny.gov/About/Advisory-Committee. Advisory Committee meetings occur at least semi-annually.

[10] All periodic newsletters are available on NYGB's website at www.greenbank.ny.gov/Resources/Publications-and-Events.

[11] The presentation from this webinar is also available on NYGB's website at www.greenbank.ny.gov/Resources/Publications-and-Events.

[12] The press release, entitled "Green Bank Network Announced US$22 Billion Milestone at OECD's Green Investment Financing Forum – Transactions to Date Expected to Mobilize US$22 Billion Across the Globe to Combat Climate Change" is available on NYGB's website at www.greenbank.ny.gov/News/In-The-News.

4 Metrics

4.1 Quarterly Metrics

Required metrics for the period October 1, through December 31, 2016 are set out in Table 1[13] below.

Table 1. Quarterly Metrics

Quarterly Metric	Prior Quarter	Current Quarter
Capital Position		
▪ **Authorized Capital ($)**	$1.0 billion	$1.0 billion
▪ **Authorized Administrative Expenses ($)**	$17.5 million	$17.5 million
▪ **Authorized Evaluation Expenses ($)**	$4.0 million	$4.0 million
▪ **Available Capital ($)**	$236.6 million	$127.7 million
Operational Matters		
▪ **Cumulative Revenues ($)[14]**	$6.7 million	$9.6 million
▪ **Cumulative Operating Expenses ($)**	$12.7 million	$14.7 million
▪ **Direct Operating Expenses ($)[15]**	$7.0 million	$8.3 million
▪ **Allocated Expenses ($)**	$5.7 million	$6.4 million
▪ **Credit Facility (if in place)**		
▪ **Credit Facility Amount ($)**	Not Applicable	Not Applicable
▪ **Credit Facility Drawn Amount ($)**	Not Applicable	Not Applicable
▪ **Credit Facility Fees & Interest (Cumulative) ($)**	Not Applicable	Not Applicable
Investment Portfolio		
▪ **Committed Funds (Cumulative) ($)**	$72.7 million	$68.4 million
▪ **Deployed Funds (Cumulative) ($)[16]**	$125.8 million	$235.7 million
▪ **Current Portfolio ($)**	$198.5 million	$304.1 million
▪ **Overall Investments to Date ($)**	$198.5 million	$304.7 million
▪ **Total Project Costs (Cumulative) ($)[17]**	Up to $953.0 million	Up to ~$1.3 billion
▪ **Mobilization Ratio**	At least 3:1	At least 3:1
▪ **Commitment Ratio (%)**	54.0%	82.5%
▪ **Portfolio Concentrations (%)[18]**	85.0% Renewable Energy	72.0% Renewable Energy
	15.0% Energy Efficiency	17.0% Energy Efficiency
	0.0% Other	12.0% Other[19]

[13] Note that the numerical metrics included in this Report reflect rounding for ease of representation.

[14] In this Report, NYGB revenue figures do not reflect quarterly fair market value adjustments (either increases or decreases) relating to NYGB capital held in U.S. Treasury securities. These valuation adjustments are included in NYGB's quarterly and year-end financial statements based on generally accepted accounting principles. However, given that NYGB's unused capital balances from time to time consist of U.S. Treasury securities with laddered maturities, and those securities are largely held to maturity or liquidated closer to maturity to meet cash needs, fair market valuation adjustments are anticipated to be largely temporary and so are omitted from Quarterly Metrics Reports to provide a clearer indication of NYGB's revenues. For the period ending December 31, 2016, NYGB's cumulative fair market valuation adjustment was a decrease of ~$60,000.

[15] Currently includes $38,995 in Evaluation Expenses.

[16] Deployed Funds (Cumulative) as presented in Table 1 is net of all capital repaid to the reporting date.

[17] Further to the definition of "Total Project Costs (Cumulative)" in the Metrics Plan (see page 15), Total Project Costs (Cumulative) may include fair market value ("**FMV**") data for some of NYGB's investments. FMV is an estimated market valuation of fully installed energy projects provided by NYGB's counterparties and is often required for federal income tax purposes, by institutional investors and for certain grant program purposes unconnected with NYGB.

[18] Based on executed transactions, and reflecting dollar values invested by NYGB in renewable energy and energy efficiency transactions, each as a proportion of the Current Portfolio.

[19] "**Other**" technology classification includes: CHP, electric vehicle infrastructure, fuel cells, energy storage, microgrids and other types of projects that, while falling within "clean energy", are not readily classified as either renewable energy or energy efficiency.

Quarterly Metric	Prior Quarter	Current Quarter
▪ **Number & Type of NYGB Investments**	7 – Renewable Energy	10 – Renewable Energy
	4 – Energy Efficiency	6 – Energy Efficiency
	0 – Other	2 – Other
▪ **Number & General Type of NYGB Counterparties[20]**	28 – Local Development Corporation; Global Corporate & Investment Banks; Commercial/Regional Banks; Specialty Finance Company; Energy Project Developers	41 – Local Development Corporation; Global Corporate & Investment Banks; Commercial/Regional Banks; Specialty Finance Company; Energy Project Developers; Municipal, University, Schools & Hospitals; Energy Technology Provider & Vendors; Government Authority
▪ **Estimated Gross Lifetime Energy Saved by Fuel Type from Energy Efficiency Projects (MWh/MMBtu) and/or Estimated Gross Lifetime Clean Energy Generated (MWh) for Committed Funds & Deployed Funds**	Estimated Gross Lifetime Energy Saved by Fuel Type (Energy Efficiency): 960,000 – 1.0 million MWh; and 9.0 – 9.9 million MMBtu	Estimated Gross Lifetime Energy Saved by Fuel Type (Energy Efficiency): 1.1 – 1.2 million MWh; and 9.4 – 10.3 million MMBtu
	Estimated Gross Lifetime Clean Energy Generated: 3.2 – 6.1 million MWh	Estimated Gross Lifetime Clean Energy Generated: 4.7 – 7.9 million MWh
▪ **Estimated Gross First Year[21] Energy Saved by Fuel Type from Energy Efficiency Projects (MWh/MMBtu) and/or Estimated Gross First Year Clean Energy Generated (MWh) for Committed Funds & Deployed Funds**	Estimated Gross First Year Energy Saved by Fuel Type (Energy Efficiency): 78,000 – 82,000 MWh; and 780,000 – 850,000 MMBtu	Estimated Gross First Year Energy Saved by Fuel Type (Energy Efficiency): 90,000 – 97,000 MWh; and 800,000 – 870,000 MMBtu
	Estimated Gross First Year Clean Energy Generated: 141,000 – 260,000 MWh	Estimated Gross First Year Clean Energy Generated: 210,000 –340,000 MWh
▪ **Estimated Gross Lifetime Energy Saved from CHP (MWh) for Committed Funds & Deployed Funds**	Not Applicable	Estimated Gross Lifetime Energy Saved from CHP: 7,100 – 8,600 MWh
▪ **Estimated Gross First Year Energy Saved from CHP (MWh) for Committed Funds & Deployed Funds**	Not Applicable	Estimated Gross First Year Energy Saved from CHP: 290 - 360 MWh

[20] In reporting the number and type of NYGB counterparties, NYGB seeks to reflect counterparties that are discrete (i.e., where NYGB is involved in different transactions with the same counterparty, that party is counted only once for the purposes of this metric); and directly in the transaction with NYGB (i.e., vendors or other counterparties to NYGB's clients or expected future transaction participants are not counted).

[21] All "estimated gross first year" metrics refer to the first year of estimated gross benefits (e.g., energy saved, installed capacity, GHGs etc.) which are expected to occur when *each underlying project is fully installed*. This means that estimated gross first year benefits across NYGB's Portfolio do not (and are not intended to) correspond to installed benefits in any given year, and instead represent cumulative estimated benefits across NYGB's Portfolio based on transactions executed through the CEF term. Note that underlying projects will usually be installed over one or more years following execution of investment agreements (reflecting project development/implementation and funding deployment cycles). The sum of all estimated gross first year measures will approximate the total annual CEF benefits goals for NYGB investments *at the end of the CEF term (i.e., in 2025)*. As set out in Section 2.2.2 of the Metrics Plan, NYGB will report on installed energy and environmental benefits associated with NYGB's Portfolio in the prescribed form annually, with such reporting included in the Quarterly Metrics Report for each quarter ending December 31 – see Section 4.2 of this Report.

Quarterly Metric	Prior Quarter	Current Quarter
▪ **Estimated Gross Lifetime Energy Savings from CHP (MMBtu)[22] for Committed Funds & Deployed Funds**	Not Applicable	Estimated Gross Lifetime Energy Savings from CHP: -(41,000 – 50,000) MMBtu
▪ **Estimated Gross First Year Energy Savings from CHP (MMBtu)[23] for Committed Funds & Deployed Funds**	Not Applicable	Estimated Gross First Year Energy Savings from CHP: -(1,700 – 2,100) MMBtu
▪ **Estimated Gross Clean Energy Generation Installed Capacity (MW), if applicable, for Committed Funds & Deployed Funds**	Not Applicable	1.6 MW
▪ **Estimated Gross Clean Energy Generation Installed Capacity (MW), if applicable, for Committed Funds & Deployed Funds**	122.3 – 217.3 MW	173.2 – 279.2 MW
▪ **Estimated Gross Lifetime GHG Emission Reductions (metric tons)[24] for Committed Funds & Deployed Funds**	2.6 – 4.2 million metric tons	3.5 – 5.4 million metric tons
Investment Pipeline		
▪ **Active Pipeline (In the Quarter) ($)**	$638.7 million	$597.7 million
Investment Process		
▪ **Proposals Received – Value (Cumulative) ($)**	$1.6 billion	$1.8 billion
▪ **Approvals - Scoring Committee (Cumulative) ($)**	$1.5 billion	$1.6 billion
▪ **Approvals - Greenlight Committee (Cumulative) ($)**	$576.4 million	$686.1 million
▪ **Approvals - IRC (Cumulative) ($)**	$245.9 million	$342.1 million

4.2 Annual Installed Energy & Environmental Benefits

The Metrics Plan as revised in 2016[25] requires that NYGB report on installed energy and environmental benefits associated with its investment portfolio, in the form of Table 2 below for each calendar year. These annual installed metrics are to be included in the Quarterly Report for the period ending on December 31 in each year. This Report represents the first time that this data is being reported.

The purpose of Table 2 is to show the cumulative progress of NYGB's investments, across the whole Portfolio, towards delivering on the total estimated energy and environmental benefits set out in Transaction Profiles as investments close, as well as aggregated into the quarterly estimates (also across the whole Portfolio) which are reflected in Table 1 in each Quarterly Report.

[22] For CHP systems, energy savings in thermal unit form is computed as the difference between the natural gas displaced by the recovered thermal energy and natural gas consumption by the generator. See www.nyserda.ny.gov/-/media/Files/Publications/PPSER/Program-Evaluation/2015ContractorReports/2015-Distributed-Genertation-CHP-Impact-Evaluation-Final.pdf for information on CHP Impact evaluation methods in NYS.

[23] For CHP systems, energy savings in thermal unit form is computed as the difference between the natural gas displaced by the recovered thermal energy and natural gas consumption by the generator. See www.nyserda.ny.gov/-/media/Files/Publications/PPSER/Program-Evaluation/2015ContractorReports/2015-Distributed-Genertation-CHP-Impact-Evaluation-Final.pdf for information on CHP Impact evaluation methods in NYS.

[24] NYSERDA utilizes a 1,160 lbs/MWh conversion factor to estimate GHG emissions reductions for electric generation and energy efficiency savings across all components of the CEF.

[25] Case 13-M-0412, "NY Green Bank – Metrics, Reporting & Evaluation Plan", Version 3.0, dated June 20, 2016, Section 2.2.2 at page 5.

Table 2. Annual Installed Energy & Environmental Benefits (Calendar Year)

Energy & Environmental Benefit	Prior Year Increment[26]	Prior Year Cumulative[27]	Current Year Increment	Current Year Cumulative[28]
▪ **Installed energy saved by fuel type from energy efficiency projects (MWh/MMBtu) and/or installed clean energy generated (MWh)**	Energy Saved by Fuel Type (Energy Efficiency): 0 MWh; and 0 MMBtu	Energy Saved by Fuel Type (Energy Efficiency): 0 MWh; and 0 MMBtu	Energy Saved by Fuel Type (Energy Efficiency): 678 MWh; and 9,265 MMBtu	Energy Saved by Fuel Type (Energy Efficiency): 678 MWh; and 9,265 MMBtu
	Clean Energy Generated: 0 MWh	Clean Energy Generated: 0 MWh	Clean Energy Generated: 56,676 MWh	Clean Energy Generated: 56,676 MWh
▪ **Installed energy savings from CHP (MWh)**	0 MWh	0 MWh	0 MWh	0 MWh
▪ **Installed energy savings from CHP (MMBtu)**	0 MMBtu	0 MMBtu	0 MMBtu	0 MMBtu
▪ **Installed CHP capacity (MW), if applicable**	0 MW	0 MW	0 MW	0 MW
▪ **Installed clean energy generation capacity (MW), if applicable**	0 MW	0 MW	48.1 MW	48.1 MW
▪ **Installed GHG emission reductions (metric tons)**	0 metric tons	0 metric tons	30,276 metric tons	30,276 metric tons

NYGB progress through December 31, 2016 will also be included in NYSERDA's Annual Clean Energy Fund Metrics and Financial Report (the "**Annual CEF Report**") scheduled to be filed with the Commission on May 1, 2017. In the Annual CEF Report, cumulative progress for annual and lifetime benefits will be represented on a commitment basis, which is inclusive of, but typically greater than, installed benefits. NYGB has worked with NYSERDA and DPS staff to arrive at a methodology for presenting cumulative progress that is as consistent as possible with the rest of the CEF.[29] Cumulative progress will be reported for the first time in the Annual CEF Report scheduled to be filed in May 2017.

[26] Prior reporting period values will be adjusted, as needed, to incorporate lagged data, corrections and evaluation results. All adjustments will be identified and described.

[27] Prior reporting period values will be adjusted, as needed, to incorporate lagged data, corrections and evaluation results. All adjustments will be identified and described.

[28] "Current Year Increment" and "Current Year Cumulative" are identical in this first year of reporting NYGB's cumulative progress of installed systems. Future Quarterly Reports for the period ending on December 31 in a calendar year will contain the cumulative annual year-on-year progress in the Current Year Cumulative column of Table 2.

[29] "**Cumulative Progress**" will be calculated by taking the low end of the range of first-year estimated energy savings, energy generation and GHG emissions reductions that are expected for each transaction at the end of the relevant funding availability period, multiplying that number by the proportion of Deployed Funds to Committed Funds (expressed as a percentage) for that transaction at the end of the relevant quarter, and then aggregating this measure across all NYGB investments. Deviations from the methodology for the calculation of Cumulative Progress arise with: (a) credit enhancements, as these products have capital committed, but which is not expected to be deployed during their respective terms; and (b) loans, where pursuant to the particular terms thereof, generally all of the committed amount is deployed on or shortly after the closing date of the relevant transaction, while underlying clean energy projects may be implemented over a longer (sometimes multi-year) period. For the foregoing transaction types, NYGB values reflect installed data received in periodic reports from clients and counterparties.

5 Progress Against Plan Deliverables

In its annual Business Plan, filed on June 27, 2016, NYGB identified specific deliverables that collectively mark its progress in implementing key initiatives over the course of the 2016 - 2017 Plan year (the "**Plan Deliverables**").

Progress against the Plan Deliverables is required to be addressed in NYGB's quarterly metrics reports, filed pursuant to the Metrics Plan, together with a brief narrative (as appropriate) of status and an explanation of any material variances relative to expectations.

NYGB's performance against the deliverables for 2016 – 2017 is summarized in Table 3 below.

Table 3. Status of Plan Deliverables (2016 – 2017)

Category	Deliverable	Status in Quarter Ending December 31, 2016
Strong Active Pipeline		
▪ **Active Pipeline**	▪ Maintain an Active Pipeline of at least $300.0 million.	▪ Achieved for this Quarter: Active Pipeline $597.7 million.
▪ **CRM, Transaction Pipeline & Portfolio Management Infrastructure**	▪ Implementation of third-party platform, full "go-live".	▪ Achieved: In December 2016 NYGB and DealCloud, Inc. launched this customized system and achieved "go live".[30] NYGB continues to work with DealCloud to fully optimize the system for NYGB's growing business and evolving needs.
Portfolio Driving Material Clean Energy Investments Across NYS		
▪ **Committed Funds**	▪ Commit $200.0 million to NYGB investments per year, equating to an average of $50.0 million in closed transactions per quarter.	▪ Achieved for this Quarter: $106.2 million of closed transactions in the quarter. ▪ Achieved for 2016 since NYGB committed in excess of $250 million to new investments.
▪ **Financing Commercial Real Estate & Multi-Family Solar System &/or Energy Efficiency Purchases**	▪ Publicly issue RFP.	▪ Ongoing & On Track: RFP documents currently being drafted and are scheduled for public release in the first part of 2017.
▪ **Financing Ground-Mounted Solar Systems Targeting Corporate & Industrial End-Users**	▪ Publicly issue RFP.	
▪ **Fund Administration & Loan/Investment Servicing Infrastructure**	▪ Implementation of third-party platform, full "go-live".	▪ Ongoing & On Track: Detailed system design and implementation to accommodate all NYGB processes and procedures – as well as reflect all historic data and transactions since inception - continuing, including inter-agency and counterparty interactions.
▪ **Available Capital**	▪ Satisfy the Cash Release Trigger pursuant to the 2015 Capitalization Order through achieving a portfolio size of $150.0 million.	▪ Achieved for the Business Plan year in the third calendar quarter of 2016.

[30] DealCloud was selected as NYGB's preferred platform provider pursuant to an extensive public solicitation, evaluation and contract negotiation process in 2016. DealCloud's press release in connection with implementation of NYGB's platform is available at: www.dealcloud.com/NewsPress.

Category	Deliverable	Status in Quarter Ending December 31, 2016
Mobilizing Private Capital		
▪ **Mobilization Ratio**	▪ Achieve an average, portfolio-wide mobilization ratio of at least 3:1, driving towards a ratio of 8:1 across all NYGB investments by the end of the CEF term in 2025.	▪ Achieved for this Quarter: Current quarter Mobilization Ratio on track at at least 3:1.

Schedule – Transaction Profiles

As required by the Metrics Plan, Transaction Profiles for each of the transactions closed during the quarter to which this Report relates are attached.

TRANSACTION PROFILE

October 2016

Bank of America Merrill Lynch – Northport-East Northport Union Free School District Extending Loan Tenors for Deeper Energy Retrofits and Greater Savings

*NY Green Bank ("**NYGB**") and Signature Public Funding Corp., a subsidiary of Signature Bank, ("**SPFC**") are collectively committing approximately $12.9 million in an equipment lease (the **"Lease"**) made to Northport-East Northport Union Free School District ("**Northport**" or the "**District**") in Suffolk County, New York. The approximately $12.9 million in total lease proceeds will be used to finance the installation of energy improvements in nine schools and an administrative building in the District. This transaction is expected to save Northport ~$1.1 million per year by replacing current infrastructure with cleaner, more efficient alternatives. Bank of America Merrill Lynch (**"BofA Merrill"**) facilitated the transaction as part of a larger arrangement and aggregation strategy with NYGB.*

Transaction Description

NYGB and SPFC are co-investing in a Lease in the amount of approximately $12.9 million - including approximately $8.7 million from NYGB and approximately $4.2 million from SPFC – to finance energy improvements (the **"Project"**) that will replace existing infrastructure in nine schools and an administrative building in the District. The Project includes, but is not limited to, lighting retrofits, building envelope improvements, energy management systems, water conservation units, and ventilator refurbishments. The Project is expected to save the District ~$1.1 million per year, with a portion of those savings to be used for lease payments and the remainder going directly to the District.

BofA Merrill arranged and structured the Lease and will sell an approximately $8.7 million, 18-year interest to NYGB and an approximately $4.2 million, 10-year interest to SPFC contemporaneously with closing. NYGB's participation in the Lease enables Northport to finance the Project over a longer tenor than the private market would provide and so permit deeper retrofits than might otherwise occur.

This constitutes the first transaction under NYGB and BofA Merrill's broader co-financing arrangement, whereby NYGB will support certain transaction types such as deeper energy efficiency retrofits requiring longer term leases. Over the long term, NYGB will work with BofA Merrill and other arrangers to aggregate portfolios of similar energy efficiency and renewable energy assets with qualifying counterparties. The long term goal of the strategy is to bring greater private sector capital into the clean energy marketplace and ultimately increase liquidity and drive additional volume in the energy efficiency and renewable energy sector, leading to broader and faster completion of similar transactions in New York.

NYGB's commitment translates to a reduction of 2,100 - 2,500 metric tons of greenhouse gas ("**GHG**") emissions annually or 41,000 - 51,000 metric tons of GHG emissions over the ~24-year useful life of the Project.

This Transaction Profile is provided pursuant to the "NY Green Bank – Metrics, Reporting & Evaluation Plan, Version 3.0" (the "**Metrics Plan**") developed in collaboration with the NYS Department of Public Service and filed with the NYS Public Service Commission (the "**Commission**") on June 20, 2016.[1] This Transaction Profile contains specific information in connection with the Lease entered into on October 21, 2016, as required by the Metrics Plan.[2]

[1] Case 13-M-0412.
[2] See Section 4.0, page 8 and Schedule 3.

Form of NYGB Investment

NYGB Product	Product Sub-Type	Committed Capital
Asset Loan & Investment	Term Loan	$8.7 million

Location(s) of Underlying Project(s)

Long Island. Ten school district properties within the Town of Huntington in Suffolk County, NY.

Types of Client & Counterparty Organizations that are Transaction Participants

	Name	Participant Type
Client	Banc of America Public Capital Corp, a subsidiary of Bank of America, National Association	Global Corporate & Investment Bank
Counterparties (current)	Northport-East Northport Union Free School District	School district
	Signature Public Funding Corp., a subsidiary of Signature Bank	Commercial Bank
Vendor	Johnson Controls, Inc. ("**JCI**")	Technology Provider/Installer

Summary of Financing Market Objectives & Barriers Addressed

Beneficiary	Market Barrier	Financing Solution
Municipal, University, Schools & Hospitals ("**MUSH**") entities	Deeper retrofits typically require longer term financing than private capital providers are able or willing to provide, especially for individual small to mid-sized projects.	This transaction will drive growth in the small to mid-sized energy efficiency leasing market by providing longer term financing that enables immediate and ongoing savings for MUSH entities. Longer term financing broadens the scope of energy improvement projects that entities can undertake, ultimately leading to the deployment of deeper retrofits in MUSH buildings throughout New York.
Capital Market Participants	On an individual basis, there is limited private capital support for long term, small to mid-sized energy efficiency leases; however, insurance companies and funds are more likely to participate on an aggregated basis once a portfolio of projects has achieved meaningful scale.	NYGB's participation in this transaction and future leases with BofA Merrill and other arrangers enables the aggregation of portfolios that private capital providers can participate in at scale. NYGB's role as an aggregator enables larger institutions to participate in small to mid-sized transactions that would otherwise not meet scale thresholds.

Technologies Involved

Technology	Measures
Energy Efficiency	Lighting retrofits, building envelope improvements, energy management systems, water conservation units, and ventilator refurbishments.

Metrics & Evaluation Plan

Planned Energy & Environmental Metrics

NYGB's minimum investment criteria specifically require that "transactions will have the potential for energy savings and/or clean energy generation that will contribute to greenhouse gas [('**GHG**')] reductions in support of New York's energy policies".[3] In addition, the Metrics Plan requires that the following energy and environmental measures, applicable to this transaction, be reported on[4]:

- Estimated gross lifetime and first-year electricity savings (MWh);
- Estimated gross lifetime and first-year fuel savings (MMbtu); and
- Estimated gross lifetime and first-year GHG emission reductions (metric tons).

The estimated gross lifetime and first-year energy and environmental impacts of the Lease are as follows:

Energy/Environmental Impact	Lifetime Low Estimate	Lifetime High Estimate	First-Year Low Estimate	First-Year High Estimate
Estimated electricity savings	41,000 MWh	50,000 MWh	2,000 MWh	2,500 MWh
Estimated energy savings from efficiency measures (fuel)	380,000 MMBtu	460,000 MMBtu	19,000 MMBtu	23,000 MMBtu
Estimated GHG emission reductions[5]	41,000 metric tons	51,000 metric tons	2,100 metric tons	2,500 metric tons

Planned Market Characterization Baseline & Market Transformation Potential

The Metrics Plan requires that market evaluation will occur when a critical mass of NYGB financing and investment arrangements are put in place. This market evaluation will be conducted on sectors that NYGB has supported and will occur approximately three to five years following initial NYGB capital deployments.[6] Baseline data will be collected in 2016 - 2017 for most indicators as a comparison point against which to assess market progress in the later studies. Progress indicators are defined below for the short, mid and long-terms.

Short-term progress indicators will identify early activity levels and will be regularly tracked for the duration of the transaction. These include, but are not limited to:

- Portfolio reaches $50.0 million threshold required to generate interest from institutional investors; and
- Favorable financial performance data throughout Lease term; and
- Favorable technology performance data evaluated through annual Measurement & Verification ("**M&V**") reports provided by JCI for the first three years of the Project.

Mid and long-term indicators will be expected to show progress through program tracking or market evaluation over time. These include, but are not limited to:

- Increased volume of projects in longer tenor (10+ years), mid-size EE equipment lease sector;
- Average and aggregate dollar value of projects in development and completed increases;
- Demonstration of competitive risk/return profiles;
- Increased awareness and use of financial performance data by financing entities;
- Financial entities emerge showing interest in NYGB's transaction position;
- Scale of EE investments increases;
- Increased number of EE equipment lease refinancings occur;
- Relationships with financial partners established; and
- Energy savings, emissions reductions evaluated based on three years of M&V data from JCI with particular focus on data from energy management systems.

[3] Case 13-M-0412, "Order Establishing New York Green Bank and Providing Initial Capitalization" issued and effective December 19, 2013 of the Commission, Ordering Clause 6 at pages 24 – 25.
[4] See Metrics Plan, Section 2.0, page 2 - 6.
[5] As of January 1, 2016, the New York State Energy Research and Development Authority ("**NYSERDA**") utilizes a 1,160 lbs/MWh conversion factor to estimate GHG emissions reductions for electric generation and energy efficiency savings across all components of the Clean Energy Fund. NYSERDA previously utilized a 625 lbs/MWh conversion factor.
[6] See Metrics Plan, Section 3.3 at page 7.

Proposed Method of Outcome/Impact Evaluation (by NYSERDA) & Timeframe

NYSERDA will evaluate the impact this transaction has had on the clean energy finance markets and the energy/environmental benefits delivered by this transaction.

Market evaluation will address the short, mid and long-term indicators identified above. Methods will include analysis of program data along with interviews and surveys of market participants to track information including but not limited to: project scale information, interest in EE lease financing, and influence of the intervention on financial markets. As noted, baseline data will be collected on most key indicators in 2016 and later follow-up studies will assess progress against baseline levels in 2017-2018. The specific timing of these efforts may be revised based on experience or other factors as the project evolves.

Impact evaluation will be based on M&V reports provided by JCI for the first three years of operations. Thereafter, NYSERDA will utilize retail electric and gas utility billing analysis to verify initial consumption estimates and assess impacts related to installation of energy efficient measures. All site data will be anonymized and/or aggregated prior to being reported or published.

As with all NYGB investments, energy efficiency projects that receive an incentive or funding from other entities (e.g., utility, other NYSERDA program) will, in accordance with the Metrics Plan, be specifically tracked in order to avoid any double-counting activity on a consolidated basis. Per the Metrics Plan, evaluation sampling approaches will also be used as a mechanism to estimate overlap and avoid double counting. Attempts will be made to coordinate market and impact evaluation activities for these projects to maximize data collection and avoid participant survey fatigue.

TRANSACTION PROFILE

December 2016

Providing New Yorkers with Greater Access to Solar Opportunities

SolarCity Corp. & Bank of America Merrill Lynch

*NY Green Bank ("**NYGB**") has entered into two transactions with SolarCity Corporation ("**SolarCity**") to accelerate the deployment of solar projects across New York State ("**NYS**"). The two transactions fund, respectively, a static pool of SolarCity's existing solar assets, and new solar projects – as one provides a five-year non-recourse term loan, and the other provides construction financing for SolarCity's upcoming solar projects in New York. The post-construction term loan facility was arranged by Bank of America Merrill Lynch ("**BofA Merrill Lynch**"), a global corporate and investment bank engaged by SolarCity. NYGB expects that approximately 54 megawatts ("**MW**") of projects will be financed as a result of these two transactions, representing approximately 7,000 solar systems in NYS.*

Transaction Description

SolarCity is the largest residential and commercial solar energy provider in the US and has installed solar systems in 27 states. SolarCity is also the largest residential solar provider in New York.

Revolving Credit Facility

On December 30, 2016, NYGB committed $20.0 million to SolarCity's existing Revolving Credit Facility (the "**RCF**"). The RCF is used by SolarCity to build new solar projects, of which a significant portion are to be located in NYS. NYGB's participation accelerates SolarCity's ability to develop NYS projects and broadens the availability of construction financing for distributed energy projects across the State.

It is estimated that NYGB's participation in the RCF will lead to approximately 54 MW of new installed generation capacity, or approximately 7,000 residential solar systems across the State. This is anticipated to result in greenhouse gas ("**GHG**") emissions reductions of 30,000 - 37,000 metric tons per year or 600,000 – 740,000 metric tons over the assumed 25-year useful life of the equipment. The credit facility also delivers a market rate return to NYS.

Term Loan Facility

SolarCity engaged BofA Merrill Lynch as Mandated Lead Arranger and Sole Bookrunner for a senior secured Term Loan Facility (the "**TLF**") to finance a static pool of solar assets. The TLF originally closed in January 2016 with three lenders. On December 9, 2016, NYGB committed $30.0 million ("**NYGB Term Loan**") to upsize the TLF, as the facility was expanded to add new solar assets.

NYGB's participation provides SolarCity additional financial flexibility, and helps to strengthen the medium-term lending market as an alternative to refinancing through the traditional asset-backed security market or private placement market. This transaction demonstrates NYGB's continued success in enhancing liquidity, decreasing the cost of capital for solar developers and installers, and helping reduce the cost of solar power to customers.

NYGB's commitment to the TLF will finance an existing portfolio of up to 13 MW of solar assets in NYS, or approximately 1,800 residential solar systems. This is anticipated to result in the reduction of up to 8,000 - 10,000 metric tons of GHG emissions annually or 170,000 - 200,000 metric tons of GHG emissions over a 25-year useful life of the equipment.

Overall Context

SolarCity sought NYGB's participation in the RCF and the TLF to provide additional capital to support SolarCity's solar development efforts and lower its cost of financing for solar energy systems, including in NYS. The two transactions are both successful replications of NYGB's participation in similar loan structures, consistent with a key NYGB goal to scale up market volume and improve private sector participation and confidence in clean energy investments. Since the TLF is financing already-operational solar systems, the new solar systems deployed in NYS overlap with the new solar systems constructed via the RCF. In aggregate, GHG emissions reductions are expected to be 30,000-37,000 metric tons per year or 750,000 – 920,000 metric tons over a 25-year useful life of the equipment. As both the TLF and RCF have similar effects on new solar asset construction, projects that are built from the backlog on NYS projects are only counted once for NYGB's impact metrics.

This Transaction Profile is provided pursuant to the "NY Green Bank – Metrics, Reporting & Evaluation Plan, Version 3.0" (the "**Metrics Plan**") developed in collaboration with the NYS Department of Public Service and filed with the NYS Public Service Commission (the "**Commission**") on June 20, 2016.[1] This Transaction Profile contains specific information in connection with the RCF (entered into on December 30, 2016), and the TLF (entered into on December 9, 2016) as required by the Metrics Plan.[2]

Form of NYGB Investment

NYGB Product	Product Sub-Type	Committed Capital
Asset Loan & Investment	Construction Financing Revolver	$20.0 million
Asset Loan & Investment	Medium Term Loan	$30.0 million

Location(s) of Underlying Project(s)

Statewide.[3] Solar assets with leases or PPA structures in regions across NYS.

Types of Client & Counterparty Organizations that are Transaction Participants

	Name	Participant Type
Client	SolarCity	Energy Project Developer
Counterparties (current)	BofA Merrill Lynch	Global Corporate & Investment Bank
Financiers (current)	Various tax equity providers and commercial banks	Global Corporate & Investment Banks, Commercial/Regional Banks

[1] Case 13-M-0412.
[2] See Section 4.0, page 8 and Schedule 3.
[3] Defined as projects located in four or more regions of the State.

Summary of Financing Market Objectives & Barriers Addressed

Beneficiary	Market Barrier	Financing Solution
Capital Market Participants	There is a limited (but growing) number of lenders actively financing solar projects.	NYGB's role as a specialty clean energy lender in both transaction facilities provides other financing parties with greater confidence, making it a key component to drawing in other private sector financiers.
	Today's capital markets are largely focused on broadly syndicated term securitizations. There is a need for additional sources of liquidity.	NYGB participation in the TLF helps to strengthen the medium term lending market as an alternative to refinancing through the securitization market or private placement market. This transaction is expected to draw new investors and financial institutions into the marketplace, resulting in enhanced liquidity.
	The solar financing market remains in the growth stage of its development when compared to the breadth and depth of the capital markets for other products and forms of financing.	NYGB's participation in both facilities is expected to help further demonstrate that competitive risk-return profiles can be achieved for solar investments.
Solar Project Developers	Due to strong customer demand, solar developers constantly need to access the capital markets to fund growth and deploy project backlog.	NYGB's participation in both facilities provides additional needed liquidity to support SolarCity's growing demand from customers. Both facilities enable SolarCity to use its capital to process project backlog.
Customers	Customers want to maximize cost savings from "going solar" but can face complex financing options that deter them from taking advantage of this opportunity.	Enhanced financing can result in lower capital costs for developers to further reduce solar costs for NYS customers.

Technologies Involved

Technology	Measures
Renewable Energy	Solar photovoltaic ("**PV**") systems

Metrics & Evaluation Plan

Planned Energy & Environmental Metrics

NYGB's minimum investment criteria specifically require that "transactions will have the potential for energy savings and/or clean energy generation that will contribute to [GHG] reductions in support of New York's energy policies".[4] In addition, the Metrics Plan requires that the following energy and environmental measures, applicable to this transaction, be reported on[5]:

- Estimated gross lifetime and first-year clean energy generated (MWh);
- Estimated gross clean energy generation installed capacity (MW); and
- Estimated gross lifetime and first-year GHG emission reductions (metric tons).

NYGB estimates that the two transactions will finance approximately 54 MW of solar assets in NYS. The estimated gross lifetime and first-year energy and environmental impacts of those financed solar assets are as follows:

[4] Case 13-M-0412, "Order Establishing New York Green Bank and Providing Initial Capitalization" issued and effective December 19, 2013 of the Commission, Ordering Clause 6 at pages 24 – 25.
[5] See Metrics Plan, Section 2.0, pages 2 – 6.

Energy/Environmental Impact	Lifetime Low Estimate	Lifetime High Estimate	First-Year Low Estimate	First-Year High Estimate
Estimated clean energy generated (MWh)	1,430,000	1,700,000	57,000	70,000
Estimated clean energy generation installed capacity (MW)[6]	49	59	Not Applicable	
Estimated GHG emission reductions (metric tons)[7]	750,000	920,000	30,000	37,000

Planned Market Characterization Baseline & Market Transformation Potential

The Metrics Plan requires that market evaluation will occur when a critical mass of NYGB financing and investment arrangements are put in place. This market evaluation will be conducted on sectors that NYGB has supported and will occur approximately three to five years following initial NYGB capital deployments.[8] Baseline data will be collected in 2016 - 2017 for most indicators as a comparison point against which to assess market progress in the later studies. Progress indicators are defined below for the short, mid and long-terms.

Short-term progress indicators will identify early activity levels and will be regularly tracked for the duration of the transaction. These include, but are not limited to:

- Size (i.e., generation capacity and dollar value) and location of existing projects financed by the term loan; and
- Performance of the underlying customer agreements for existing projects financed by the term loan.

Mid and long-term indicators will be expected to show progress through program tracking or market evaluation over time. These include, but are not limited to:

- Market volume of SolarCity projects increases;
- General understanding of renewable energy benefits by financial community increases;
- Increased awareness and use of PPA performance data by financing entities;
- Increased awareness and use of project/technology performance data by financing entities;
- Demonstration of competitive risk-return profiles for solar investment;
- Decreased project costs;
- Replication of the medium term loan financing structure;
- Volume of secondary market financing of solar assets; and
- Number of new lending participants.

Proposed Method of Outcome/Impact Evaluation (by NYSERDA) & Timeframe

Market evaluation will address the short, mid and long-term indicators identified above. Methods will include analysis of program data along with interviews and surveys of market participants (customers, financial community) to track information including but not limited to: participation rates, project scale information, interest in solar financing (generally and with regard to residential specifically), and influence of NYGB's participation on financial markets. As noted, baseline data will be collected on most key indicators in 2016 - 2017 and later follow-up studies will assess progress against baseline levels. The specific timing of these efforts may be revised based on experience or other factors as the investment evolves.

Impact evaluation will use actual system performance data to understand energy and environmental outcomes. Impact evaluation is expected to include quarterly review and analysis of actual PV portfolio production data collected by SolarCity. Actual PV portfolio performance will be monitored and documented against expected performance.

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[6] Built clean energy generation capacity at full deployment of funds is the same for first-year and lifetime duration.
[7] As of January 1, 2016, the New York State Energy Research and Development Authority ("**NYSERDA**") utilizes a 1,160 lbs/MWh conversion factor to estimate GHG emissions reductions for electric generation and energy efficiency savings across all components of the Clean Energy Fund. NYSERDA previously utilized a 625 lbs/MWh conversion factor.
[8] See Metrics Plan, Section 3.3 at page 7.

Impact evaluation will help provide verification of performance, in turn aiding the clean energy finance community in understanding risk in this technology area.

As with all NYGB investments, SolarCity projects that receive an incentive or funding from other entities (e.g., utility, other NYSERDA program) will, in accordance with the Metrics Plan, be specifically tracked in order to minimize any double-counting activity on a consolidated basis. As set out in the Metrics Plan, evaluation sampling approaches will also be used as a mechanism to estimate overlap and minimize double counting. Attempts will be made to coordinate market and impact evaluation activities for projects that receive support from multiple sources in order to maximize the efficiency of data collection and avoid participant survey fatigue.

TRANSACTION PROFILE

December 2016

Financing for Building Retrofits in Low-to-Moderate Income Housing Developments

New York City Housing Authority

*NY Green Bank ("**NYGB**") is committing $11.0 million in a short-term loan (the **"Loan"**) made to New York City Housing Authority ("**NYCHA**") in New York City, New York. The $11.0 million in total loan proceeds will be used to finance the installation of LED lighting retrofits in up to 18 buildings inhabited by low-to-moderate income ("**LMI**") tenants. This transaction is expected to save NYCHA 10% - 15% in annual energy costs by replacing current lighting equipment with cleaner, more efficient alternatives.*

Transaction Description

NYGB is making a loan commitment of $11.0 million to conduct energy improvements, primarily through the replacement of conventional lighting equipment with cleaner, more efficient LED lighting in 18 master-metered multifamily developments in New York City (the **"Project"**). The Project includes 30 different LED technologies, and is expected to generate savings of 10% - 15% of current annual energy expenses for the building owner.

The NYGB financing is expected to be refinanced by July 31, 2017.

NYGB financing will create a borrowing history for a relatively new structure that can be replicated with NYCHA and other New York State ("**NYS**") public housing authorities (**"PHAs"**) that seek to utilize private capital financing for similar types of building upgrades.

NYGB's commitment translates to an estimated reduction of 5,500 – 6,700 metric tons of greenhouse gas ("**GHG**") emissions annually or 65,000 – 79,000 metric tons of GHG emissions reductions over the 12-year useful life of the Project.

This Transaction Profile is provided pursuant to the "NY Green Bank – Metrics, Reporting & Evaluation Plan, Version 3.0" (the "**Metrics Plan**") developed in collaboration with the NYS Department of Public Service and filed with the NYS Public Service Commission (the "**Commission**") on June 20, 2016.[1] This Transaction Profile contains specific information in connection with the agreement entered into on December 23, 2016, as required by the Metrics Plan.[2]

Form of NYGB Investment

NYGB Product	Product Sub-Type	Committed Capital
Asset Loan & Investment	Bridge Loan	$11.0 million

Location(s) of Underlying Project(s)

New York City. Eighteen public housing developments in New York, NY.

[1] Case 13-M-0412.
[2] See Section 4.0, page 8 and Schedule 3.

Types of Client & Counterparty Organizations that are Transaction Participants

	Name	Participant Type
Client	New York City Housing Authority	Government Authority
Vendor	Constellation NewEnergy	Energy Service Company

Summary of Financing Market Objectives & Barriers Addressed

Beneficiary	Market Barrier	Financing Solution
Public Housing Authorities	There is limited transaction history for PHAs borrowing on a short-term unsecured basis to finance energy efficiency improvements before they are refinanced by a term lender on completion of installation.	NYGB's participation in this transaction and potential future short term loans with PHAs demonstrates to private capital sources (such as commercial banks) that there is demand for such a loan product and provides borrowing history for NYCHA and similar PHAs which seek to replicate the transaction structure. Transactions of this nature can help drive growth in the market for financing of LMI building energy efficiency by demonstrating a structure through which PHAs can successfully and scalably finance improvements benefiting LMI tenants in PHA-owned buildings.

Technologies Involved

Technology	Measures
Energy Efficiency	LED lighting retrofits

Metrics & Evaluation Plan

Planned Energy & Environmental Metrics

NYGB's minimum investment criteria specifically require that "transactions will have the potential for energy savings and/or clean energy generation that will contribute to greenhouse gas reductions in support of New York's energy policies".[3] In addition, the Metrics Plan requires that the following energy and environmental measures, applicable to this transaction, be reported on[4]:

- Estimated gross lifetime and first-year electricity savings (MWh);
- Estimated gross lifetime and first-year GHG emission reductions (metric tons).

The estimated gross lifetime and first-year energy and environmental impacts of this transaction are as follows:

Energy/Environmental Impact	Lifetime Low Estimate	Lifetime High Estimate	First-Year Low Estimate	First-Year High Estimate
Estimated electricity savings (MWh)	123,000	150,000	10,400	12,700
Estimated GHG emission reductions (metric tons)[5]	65,000	79,000	5,500	6,700

[3] Case 13-M-0412, "Order Establishing New York Green Bank and Providing Initial Capitalization" issued and effective December 19, 2013 of the Commission, Ordering Clause 6 at pages 24 – 25.
[4] See Metrics Plan, Section 2.0, page 2 - 6.
[5] As of January 1, 2016, the New York State Energy Research and Development Authority ("**NYSERDA**") utilizes a 1,160 lbs/MWh conversion factor to estimate GHG emissions reductions for electric generation and energy efficiency savings across all components of the Clean Energy Fund. NYSERDA previously utilized a 625 lbs/MWh conversion factor.

Planned Market Characterization Baseline & Market Transformation Potential

The Metrics Plan requires that market evaluation will occur when a critical mass of NYGB financing and investment arrangements are put in place. This market evaluation will be conducted on sectors that NYGB has supported and will occur approximately three to five years following initial NYGB capital deployments.[6] Baseline data will be collected in 2016 - 2017 for most indicators as a comparison point against which to assess market progress in the later studies. Progress indicators are defined below for the short, mid and long-terms.

Short-term progress indicators will identify early activity levels and will be regularly tracked for the duration of the transaction. These include, but are not limited to:

- Completion/verification of all anticipated LED lighting installations; and
- Favorable technology performance data evaluated through Measurement & Verification ("**M&V**") reports provided by NYCHA annually.

Mid and long-term indicators will be expected to show progress through program tracking or market evaluation over time. These include, but are not limited to:

- Increased volume of energy efficiency projects financed by PHAs;
- Average and aggregate dollar value of projects in development and completed increases;
- Demonstration of competitive risk/return profiles;
- Increased awareness and use of financial performance data by financing entities;
- Financial entities emerge showing interest in NYGB's transaction position;
- Scale of PHA energy efficiency investments increases; and
- Energy savings, emissions reductions evaluated based on M&V data from NYCHA.

Proposed Method of Outcome/Impact Evaluation (by NYSERDA) & Timeframe

NYSERDA will evaluate the impact this transaction has had on the clean energy finance markets and the energy/environmental benefits delivered by this transaction.

Market evaluation will address the short, mid and long-term indicators identified above. Methods will include analysis of program data along with interviews and surveys of market participants to track information including but not limited to: project scale information, interest in energy efficiency lease financing, and influence of the intervention on financial markets. As noted, baseline data will be collected on most key indicators in 2016 - 2017 and later follow-up studies will assess progress against baseline levels in 2017 - 2018. The specific timing of these efforts may be revised based on experience or other factors as the Project evolves.

Impact evaluation will be based on M&V reports provided by NYCHA annually. This will be used by NYSERDA to verify initial estimates and assess impacts related to installation of energy efficient LED lighting equipment. All site data will be anonymized and/or aggregated prior to being reported or published.

As with all NYGB investments, energy efficiency projects that receive an incentive or funding from other entities (e.g., utility, other NYSERDA program) will, in accordance with the Metrics Plan, ideally be tracked in order to avoid any double-counting of activity or benefits on a consolidated basis. Pursuant to the Metrics Plan, evaluation sampling approaches will also be used as a mechanism to estimate overlap and avoid double counting. Attempts will be made to coordinate market and impact evaluation activities for the Projects to maximize data collection and avoid participant survey fatigue.

[6] See Metrics Plan, Section 3.3 at page 7.

TRANSACTION PROFILE

December 2016

Enabling Growth & Expanding Financing Opportunities for Hydrogen Fuel Cell Projects

Plug Power, Inc.

*NY Green Bank (**"NYGB"**) is providing term financing to Latham, NY-based hydrogen and fuel cell systems manufacturer Plug Power, Inc. ("**PP**") to support deployment and growth of its New York State ("**NYS**") operations. This transaction will enable PP to expand deployments, adding up to 1,300 GenDrive units with commercial customers, replacing current infrastructure with cleaner, more efficient alternatives, while growing its NYS labor force by nearly 100 new employees.*

Transaction Description

NYGB is providing a $25.0 million term loan facility (the "**Facility**") to PP to finance the deployment of fuel cell systems powering forklifts in distribution centers across NYS (the "**Project**"). The Facility will allow PP immediate access to needed capital that is currently held as cash collateral in restricted accounts, rather than waiting for it to be released over time as payments are made through sale-leasebacks arrangements with tax equity providers. NYGB's participation in this transaction is significant because it enables PP to deploy more systems and convert more forklift fleets in a shorter amount of time than would otherwise be possible under their current financial arrangement.

PP is a designer and manufacturer of fuel cell systems and fueling infrastructure that specializes in deploying its fuel cell propulsion systems across entire fleets of forklifts and transportation vehicles within distribution centers throughout the U.S. PP deploys these systems and then provides a suite of services to operate them – such as procuring the hydrogen fuel the systems run on, and providing ongoing operations and maintenance to keep the systems running at a guaranteed uptime level – all as a single turnkey offering provided to the owner of the manufacturing site or distribution center. Many of PP's current customers are major corporations in the automotive manufacturing, retail distribution and consumer goods industry.

This transaction constitutes NYGB's first investment in the fuel cell industry, which is still relatively small nationally but growing at an above-market average rate. As a result, many firms in the industry experience high borrowing costs. NYGB participation in the transaction aims to address those high costs for PP and other similar companies in the sector by making otherwise restricted capital available to PP, so they can continue scaling their business, including to the levels where capital costs are expected to be significantly reduced.

This Transaction Profile is provided pursuant to the "NY Green Bank – Metrics, Reporting & Evaluation Plan, Version 3.0" (the "**Metrics Plan**") developed in collaboration with the NYS Department of Public Service and filed with the NYS Public Service Commission (the "**Commission**") on June 20, 2016.[1] This Transaction Profile contains specific information in connection with the Plug Power transaction entered into on December 23, 2016, as required by the Metrics Plan.[2]

[1] Case 13-M-0412.

[2] See Section 4.0, page 8 and Schedule 3.

Form of NYGB Investment

NYGB Product	Product Sub-Type	Committed Capital
Term Loan	Senior Secured Debt	$25.0 million

Location(s) of Underlying Project(s)

New York State. Projects will be located in distribution centers across NYS.

Types of Client & Partner Organizations that are Transaction Participants

	Name	Participant Type
Clients & Counterparties (current)	Plug Power, Inc. Lessor Banks	Energy Technology Provider & Vendor Boutique Investment Banks/Advisory, Specialty Finance Company
Counterparties (future)	To be determined	Property Owner/Developer

Summary of Financing Market Objectives & Barriers Addressed

Beneficiary	Market Barrier	Financing Solution
Fuel Cell Industry	Because fuel cell technology at commercial scale is relatively new, private capital providers are often hesitant to lend to the industry. As a result, fuel cell manufacturers and providers face high costs of capital which impede further business development. Many capital providers also don't assume project risk, and consequently require large cash collateral accounts if they are funding new projects. These collateral accounts, in addition to high borrowing costs, decrease the already thin margin under which fuel cell providers currently operate.	NYGB participation in this transaction will lessen the burden of the cash collateral accounts for PP, and allow PP to expand its business in NYS. This signals to private capital providers that fuel cells are a viable and profitable technology, which should further drive down future costs of capital, reduce or remove the need for cash collateralization, and encourage more capital providers to enter the market.
	To date, limited availability and high costs of capital have kept the fuel cell industry from a more rapid expansion. Many logistics and distribution center customers, who could greatly benefit from the reduced cost and increased efficiency of fuel cell systems, are unable to access these opportunities due to a lack of financing.	NYGB's participation in this transaction will facilitate the more widespread deployment of fuel cell systems at a reduced cost. This should expand the number of interested parties that can benefit from this advanced technology while increasing demand for fuel cells and ultimately driving down costs as economies of scale are achieved.

Beneficiary	Market Barrier	Financing Solution
Capital Market Participants	Many private capital providers are hesitant to enter the fuel cell market due to the limited track record of the technology and its implementation at scale. Many of those who are interested in entering into this segment of the market are charging higher capital costs to address the perceived risk associated with this lesser known technology type.	The transaction structure NYGB is using can ultimately encourage other fuel cell companies to monetize their cash collateral accounts via the capital markets by demonstrating a transaction structure through which this can be done and replicated. In addition, NYGB capital will allow the fuel cell propulsion model to further build its track record, making it more attractive to, and financeable by, private capital providers.

Technologies Involved

Technology	Measures
Fuel Cells	Hydrogen-based fuel cell propulsion systems capable of powering forklifts and industrial and commercial vehicles.

Metrics & Evaluation Plan

Planned Energy & Environmental Metrics

NYGB's minimum investment criteria specifically require that "transactions will have the potential for energy savings and/or clean energy generation that will contribute to greenhouse gas [("**GHG**")] reductions in support of New York's energy policies".[3] In addition, the Metrics Plan requires that the following energy and environmental measures, applicable to this transaction, be reported on[4]:

- Estimated gross lifetime and first-year clean energy generated (MWh);
- Estimated gross clean energy generation installed capacity (MW); and
- Estimated gross lifetime and first-year GHG emission reductions (metric tons)

The estimated lifetime and first-year energy and environmental impacts of the Project, facilitated by NYGB's financial participation in this transaction, are as follows:

Energy/Environmental Impact	Lifetime Low Estimate	Lifetime High Estimate	First-Year Low Estimate	First-Year High Estimate
Estimated clean, renewable energy generated (MWh)	73,000	89,000	7,300	8,900
Estimated clean energy generation installed capacity (MW)[5]	2.3	2.9	Not Applicable	
Estimated GHG emission reductions (metric tons)[6]	40,000	53,000	4,000	5,300

[3] Case 13-M-0412, "Order Establishing New York Green Bank and Providing Initial Capitalization" issued and effective December 19, 2013 of the Commission, Ordering Clause 6 at pages 24 – 25.
[4] See Metrics Plan, Section 2.0, pages 2 - 6.
[5] First year energy generation refers to the first year of estimated energy generation once a measure is installed and as such generation will not necessarily correspond to the first year of the investment term. The majority of NYGB's investments have a two to three-year development cycle in which projects are originated, installed, and placed into commercial operation.
[6] As of January 1, 2016, the New York State Energy Research and Development Authority ("**NYSERDA**") utilizes a 1,160 lbs/MWh conversion factor to estimate GHG emissions reductions for electric generation and energy efficiency savings across all components of the Clean Energy Fund. NYSERDA previously utilized a 625 lbs/MWh conversion factor.

Planned Market Characterization Baseline & Market Transformation Potential

The Metrics Plan requires that market evaluation will occur when a critical mass of NYGB financing and investment arrangements are put in place. This market evaluation will be conducted on sectors that NYGB has supported and will occur approximately three to five years following initial NYGB capital deployments.[7] Baseline data will be collected in 2016 for most indicators as a comparison point against which to assess market progress in the later studies. Progress indicators are defined below for the short, mid and long-terms.

Short-term progress indicators will identify early activity levels and will be regularly tracked for the duration of the transaction. These include, but are not limited to:

- Increased system deployment;
- GHG emission reductions;
- Job growth within PP; and
- Favorable technology performance data.

Mid and long-term indicators will be expected to show progress through program tracking or market evaluation over time. These include, but are not limited to:

- Increased volume of projects in core and secondary markets;
- Lower cost of capital and increased operating margin for PP;
- Financial entities emerge showing interest in NYGB's transaction position;
- Relationships with financial partners established; and
- Continued energy savings, emissions reductions.

The above lists of indicators will remain in development until market characterization and baseline activity commences. Additional aspects may be tracked to further support baseline and market measurements.

Proposed Method of Outcome/Impact Evaluation (by NYSERDA) & Timeframe

NYSERDA will evaluate the impact this transaction has had on the clean energy finance markets and the energy/environmental benefits delivered by this transaction.

Market evaluation will address the short, mid and long-term indicators identified above. Methods will include analysis of program data along with interviews and surveys of market participants to track information including but not limited to: project scale information, interest in fuel cell financing, and influence of NYGB's participation on financial markets. As noted, baseline data will be collected on most key indicators in 2017 and later follow-up studies will assess progress against baseline levels in 2018-2019. The specific timing of these efforts may be revised based on experience or other factors as the project evolves.

Impact evaluation is expected to draw upon and include data collected to support Project-specific measurement and verification activities. Impact evaluation activities will likely include use of reporting data provided by PP on a Quarterly/Monthly basis. Annualized first-year GHG emission reductions and cost savings will be based on fuel cell deployment statistics and equipment replacement data (Lead Acid/Propane). Analysis will be conducted beginning in 2018 with follow-up studies as appropriate. On-site performance verification of deployed equipment may be conducted.

As with all NYGB investments, PP projects that receive an incentive or funding from other entities (e.g., utility, other NYSERDA program) will, in accordance with the Metrics Plan, be tracked in order to minimize any double-counting activity on a consolidated basis. As contemplated in the Metrics Plan, evaluation sampling approaches will also be used as a mechanism to estimate overlap and minimize double counting. Attempts will be made to coordinate market and impact evaluation activities for these projects to maximize data collection and avoid participant survey fatigue.

[7] See Metrics Plan, Section 3.3 at page 7.

TRANSACTION PROFILE

December 2016

Enabling Deeper Energy Retrofits & Expanding Financing Opportunities for Small & Mid-Size Efficiency Projects

Bank of America Merrill Lynch – Hebrew Home for the Aged at Riverdale, New York City
Issued Under the Dormitory Authority of the State of New York's Tax-Exempt Leasing Program

*NY Green Bank ("**NYGB**") and Bank of America Merrill Lynch ("**BofA Merrill**") are co-financing the installation of a combined heat and power ("**CHP**") system at the Hebrew Home for the Aged at Riverdale ("**HHAR**"), in New York City as part of a larger arrangement and aggregation strategy. This transaction will save HHAR an estimated $1.6 million annually by replacing current infrastructure with cleaner, more efficient alternatives.*

Transaction Description

NYGB and BofA Merrill are co-investing in an approximately $14.0 million tax-exempt equipment lease (the "**Lease**") issued under the Dormitory Authority of the State of New York's (**"DASNY"**) tax-exempt leasing program (**"TELP"**). The Lease will finance energy improvements (the "**Project**"), that will replace existing infrastructure at HHAR's Riverdale, New York facility with cleaner, more efficient equipment, generating substantial savings for HHAR immediately and throughout the 20+ year lifetime of the equipment. The Lease, made under DASNY's TELP, enables the tax-exempt financing for the Project and reduces borrowing costs to HHAR. NYGB's participation in this transaction is significant because it extends the tenor of the Lease beyond the number of years BofA Merrill would normally finance, enabling deeper energy retrofits and less expenditures for HHAR – resulting in savings of approximately $1.6 million per year. A portion of those savings will be used for lease payments and the remainder will go directly to HHAR.

This constitutes the second transaction under NYGB's and BofA Merrill's broader co-financing arrangement, whereby NYGB supports transaction types such as deeper energy efficiency retrofits requiring longer term leases. Over the long term, NYGB will work with BofA Merrill and other arrangers to aggregate portfolios of similar energy efficiency and renewable energy assets with qualifying counterparties. The long term goal of the strategy is to bring greater private sector capital into the clean energy marketplace and ultimately increase liquidity and drive additional volume in the New York energy efficiency sector.

This Transaction Profile is provided pursuant to the "NY Green Bank – Metrics, Reporting & Evaluation Plan, Version 3.0" (the "**Metrics Plan**") developed in collaboration with the NYS Department of Public Service and filed with the NYS Public Service Commission (the "**Commission**") on June 20, 2016.[1] This Transaction Profile contains specific information in connection with the HHAR transaction (which was entered into on December 29, 2016), as required by the Metrics Plan.[2]

[1] Case 13-M-0412.
[2] See Section 4.0, page 8 and Schedule 3.

Form of NYGB Investment

NYGB Product	Product Sub-Type	Committed Capital
Asset Loan & Investment	Senior Debt	$11.5 million

Location(s) of Underlying Project(s)

New York City - Bronx. The project is located in Riverdale, New York, in the Bronx.

Types of Client & Counterparty Organizations that are Transaction Participants

	Name	Participant Type
Client	Hebrew Home for the Aged at Riverdale	Healthcare Provider
Counterparties (Current)	Banc of America Public Capital Corp, a subsidiary of Bank of America, National Association	Global Corporate & Investment Bank
	Dormitory Authority of the State of New York (tax-exempt issuer)	Government Authority
Vendors	Trystate Mechanical	Construction Contractor
	AKF Engineering	Engineering Services
Partners (Future)	To be Identified	Institutional Investor(s)

Summary of Financing Market Objectives & Barriers Addressed

Beneficiary	Market Barrier	Financing Solution
Commercial and/or Non-Profit Entities	Commercial and/or non-profit entities often require immediate savings to justify undertaking energy improvement projects, which is particularly challenging for deeper retrofits, such as the CHP project at HHAR, given longer payback periods. In order to satisfy economic needs, savings must exceed lease payments, which typically requires longer-term financing than private capital providers are able or willing to provide, especially for small to mid-sized projects.	This transaction will drive growth in the small to mid-sized energy efficiency leasing market by providing longer-term financing that enables immediate and ongoing savings for commercial and/or non-profit entities. Longer term financing broadens the scope of energy improvement projects that entities can undertake, ultimately leading to the deployment of deeper retrofits in commercial and non-profit buildings throughout New York.
Capital Market Participants	On an individual basis, there is limited private capital support for small to mid-sized energy efficiency leases; however, insurance companies and funds are more likely to participate on an aggregated basis once a portfolio of projects has achieved meaningful scale.	NYGB's participation in this transaction and future leases with BofA Merrill and other arrangers enables the aggregation of portfolios that private capital providers can participate in at scale. NYGB's role as an aggregator enables larger institutions to participate in portfolios of small to mid-sized transactions that individually might not meet scale thresholds.

Technologies Involved

Technology	Measures
Energy Efficiency	Electric generators, steam generators, absorption chiller, air handlers, cooling tower, electrical service upgrades.

Metrics & Evaluation Plan

Planned Energy & Environmental Metrics

NYGB's minimum investment criteria specifically require that "transactions will have the potential for energy savings and/or clean energy generation that will contribute to greenhouse gas [('**GHG**')] reductions in support of New York's energy policies".[3] In addition, the Metrics Plan requires that the following energy and environmental measures, applicable to this transaction, be reported on[4]:

- Estimated gross lifetime and first-year clean energy generated (MWh);[5]
- Estimated gross clean energy generation installed capacity (MW); and
- Estimated gross lifetime and first-year GHG emission reductions (metric tons).

The estimated lifetime and first-year energy and environmental impacts of the Project, facilitated by NYGB's financial participation in this transaction, are as follows:

Energy/Environmental Impact	Lifetime Low Estimate	Lifetime High Estimate	Annualized Low Estimate	Annualized High Estimate
Energy savings from efficiency measures (electric)	7,100 MWh	8,600 MWh	290 MWh	360 MWh
Energy savings from efficiency measures (fuel)[6]	-41,000 MMBtu	-50,000 MMBtu	-1,700 MMBtu	-2,100 MMBtu
Estimated GHG emission reductions[7]	1,500 metric tons	1,900 metric tons	60 metric tons	80 metric tons

Planned Market Characterization Baseline & Market Transformation Potential

The Metrics Plan requires that market evaluation will occur when a critical mass of NYGB financing and investment arrangements are put in place. This market evaluation will be conducted on sectors that NYGB has supported and will occur approximately three to five years following initial NYGB capital deployments.[8] Baseline data will be collected in 2016 for most indicators as a comparison point against which to assess market progress in the later studies. Progress indicators are defined below for the short, mid and long-terms.

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[3] Case 13-M-0412, "Order Establishing New York Green Bank and Providing Initial Capitalization" issued and effective December 19, 2013 of the Commission, Ordering Clause 6 at pages 24 – 25.

[4] See Metrics Plan, Section 2.0, pages 2 – 6.

[5] First year energy generation refers to the first year of estimated energy generation once a measure is installed and as such generation will not necessarily correspond to the first year of the investment term. The majority of NYGB's investments have a two to three-year development cycle in which projects are originated, installed, and placed into commercial operation.

[6] "Natural gas usage at the site is increased by the CHP facility. Energy Savings in thermal unit form is computed as the difference between the natural gas displaced by the recovered thermal energy and natural gas consumption by the generator [refer to https://www.nyserda.ny.gov/-/media/Files/Publications/PPSER/Program-Evaluation/2015ContractorReports/2015-Distributed-Genertation-CHP-Impact-Evaluation-Final.pdf for information on CHP Impact evaluation methods in NYS]."

[7] As of January 1, 2016, the New York State Energy Research and Development Authority ("**NYSERDA**") utilizes a 1,160 lbs/MWh conversion factor to estimate GHG emissions reductions for electric generation and energy efficiency savings across all components of the Clean Energy Fund ("**CEF**"). NYSERDA previously utilized a 625 lbs/MWh conversion factor.

[8] See Metrics Plan, Section 3.3, page 7.

Short-term progress indicators will identify early activity levels and will be regularly tracked for the duration of the transaction. These include, but are not limited to:

- Portfolio reaches $50.0 million threshold required to generate interest from institutional investors;
- Favorable financial performance data throughout lease term; and
- Favorable technology performance data.

Mid and long-term indicators will be expected to show progress through program tracking or market evaluation over time. These include, but are not limited to:

- Increased volume of projects in longer tenor (10+ years), mid-size energy efficiency equipment lease sector;
- Average and aggregate dollar value of projects in development and completed increases;
- Demonstration of competitive risk/return profiles;
- Increased awareness and use of financial performance data by financing entities;
- Financial entities emerge showing interest in NYGB's transaction position;
- Scale of energy efficiency investments increases;
- Increased number of energy efficiency equipment lease refinancings occur;
- Relationships with financial partners established; and
- Realized energy savings and emissions reductions.

The above listed indicators will remain in development until market characterization and baseline activity commences. Additional aspects may be tracked to further support baseline and market measurements.

Proposed Method of Outcome/Impact Evaluation (by NYSERDA) & Timeframe

NYSERDA will evaluate the impact this transaction has had on the clean energy finance markets and the energy/environmental benefits delivered by this transaction.

Market evaluation will address the short, mid and long-term indicators identified above. Methods will include analysis of program data along with interviews and surveys of market participants to track information including but not limited to: project scale information, interest in energy efficiency lease financing, and influence of NYGB's participation on financial markets. As noted, baseline data will be collected on most key indicators in 2016 and later follow-up studies will assess progress against baseline levels in 2017 - 2018. The specific timing of these efforts may be revised based on experience or other factors as the Project evolves.

Impact evaluation is expected to draw upon and include data collected to support project-specific measurement and verification activities (e.g., such as those associated with PON 2701[9]). Impact evaluation activities will likely include use of hourly interval data retrieved from PON 2701 Interval Data System with on-site validation activities. Annualized first-year energy savings will be based on electric usage readings (kWh) at the customer meter. Total electricity savings may be comprised of prime mover generation as well as secondary electric impacts attributable to use of an absorption chiller to satisfy cooling load that otherwise would have been satisfied with an electric chiller. HHAR will provide quarterly performance reports to NYGB for the duration of the Lease. On-site verification of measure installations and performance may be conducted as resources allow. All site data will be anonymized and/or aggregated prior to being reported or published.

As with all NYGB investments, projects that receive an incentive or funding from other entities (e.g., utility, other NYSERDA program) will, in accordance with the Metrics Plan, be tracked in order to minimize any double-counting activity on a consolidated basis. As set out in the Metrics Plan, evaluation sampling approaches will also be used as a mechanism to estimate overlap and avoid double counting. Attempts will also be made to coordinate market and impact evaluation activities for this project to maximize the efficiency of data collection and avoid participant survey fatigue.

[9] See www.nyserda.ny.gov/Funding-Opportunities/Closed-Funding-Opportunities/PON-2701-Combined-Heat-and-Power-Performance-Program.