



NY Green Bank
A Division of NYSERDA

NY Green Bank

Metrics, Reporting & Evaluation

Quarterly Report No. 15
(Through March 31, 2018)

Case 13-M-0412

May 15, 2018

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1 Performance at a Glance – As of March 31, 2018

Stimulating New Clean Energy Proposals in the State

NY Green Bank (“NYGB”) has received over **\$2.6 billion** in investment proposals since inception.

Strong Active Pipeline

The Active Pipeline of potential investments proceeding to close is **\$704.2 million**.¹

Driving Material Clean Energy Investments Across NYS

NYGB’s investments support clean energy projects with a total project cost of **between \$1.39 and \$1.63 billion**² in aggregate, based on Overall Investments to Date of **\$457.5 million**.

Mobilizing Capital

NYGB’s investment portfolio as a whole represents an expected mobilization ratio of Total Project Costs to NYGB funds in line with the target level of **3:1**,³ 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 - Maintaining Self-Sufficiency

Continued revenue growth – **\$32.6 million** in revenues has been generated since NYGB’s inception. NYGB continues to maintain self-sufficiency with cumulative revenues in excess of expenses.

Contributing to CEF Objectives, REV & the CES

NYGB’s investments to date drive estimated gross lifetime GHG reductions of **between 6.3 and 8.1 million metric tons**², equivalent to removing **between 61,435 and 78,530 cars** from the road for a period of **23 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 March 31, 2018, the \$704.2 million in Active Pipeline does not include the \$457.5 million in closed transactions that comprises NYGB’s Overall Investments to Date.

² NYGB monitors its counterparties’ clean energy project installations throughout the duration of each investment through the receipt and review of periodic reports. Based on information received, NYGB continually manages the actual and expected energy and environmental benefits across its overall portfolio. As new information becomes available informing NYGB of NYS market uptake of clean energy projects, NYGB may correspondingly adjust (up or down) the overall portfolio’s high and low estimated Total Project Costs and energy and environmental metrics (identified at closing of each investment, working with the relevant clients and counterparties and reflected in Transaction Profiles). This constant monitoring and refinement of expected outcomes improves the accuracy of NYGB’s overall portfolio level estimations of impact benefits as it works towards meeting the CEF objectives to support the NYS CES and SEP goals. Given such periodic adjustments, the aggregate estimated benefits reported in Quarterly Reports will be the most up-to-date and accurate estimate, and so no longer will reflect the sum of the low and high estimated benefits specified in the Transaction Profiles at the time of each transaction close.

³ Given the range of Total Project Costs that NYGB investments mobilize, the Mobilization Ratio also represents a range; currently of 3.0:1 to 3.6:1.

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 Commission⁴ (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; 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 credit underwriting and transaction execution processes.

NYGB executed two transaction amendments extending the tenor and maturity of capital commitments to one of its portfolio counterparties which are expected to result in greater clean energy outcomes in NYS. These transaction amendments are discussed in [Section 3.2](#).

NYGB’s overall transaction status and Active Pipeline are summarized in [Figure 1](#),⁵ showing that since inception through March 31, 2018:

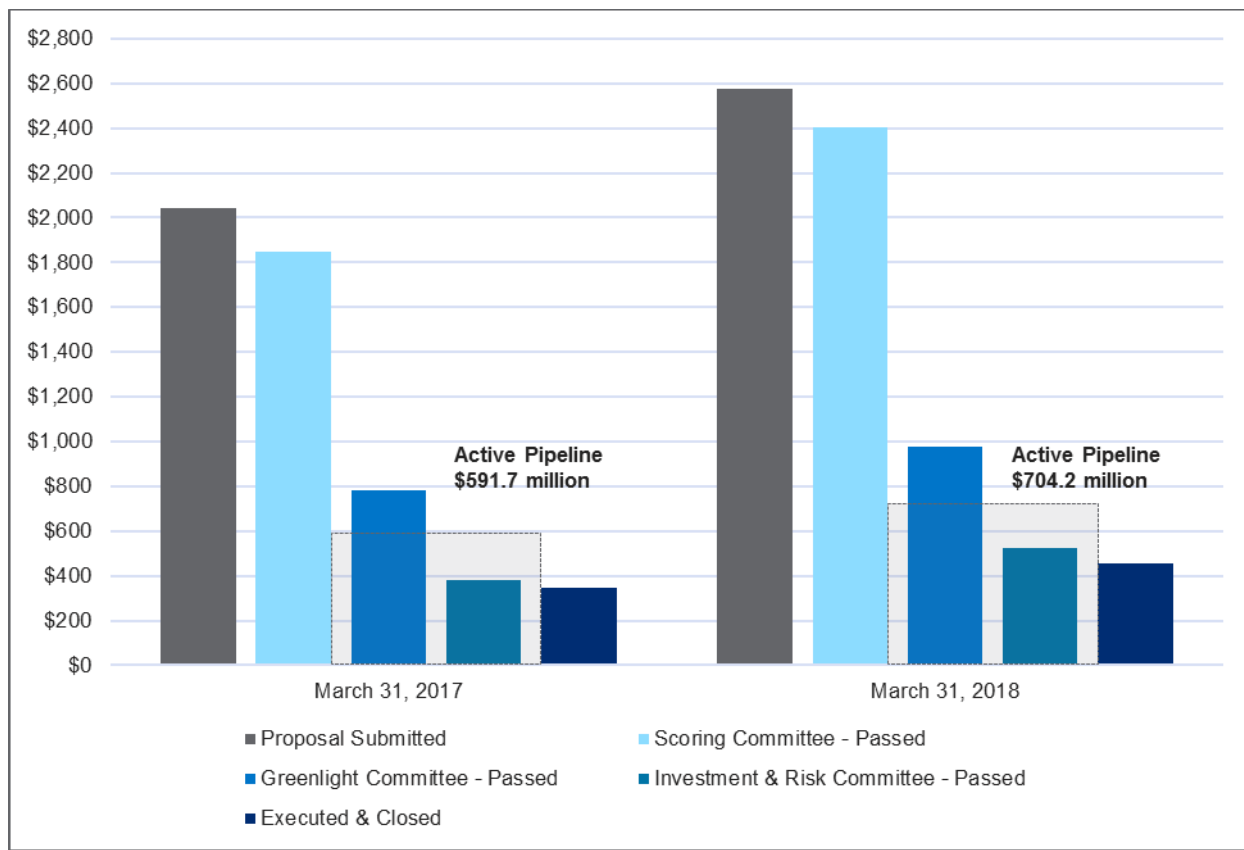
- (a) Over **\$2.6 billion** of proposals have been received and evaluated by NYGB’s Scoring Committee;
- (b) **\$2.4 billion** of proposals have passed Scoring Committee evaluation – representing potential investments that meet NYGB’s mandate and proposal evaluation criteria;
- (c) **\$974.0 million** of proposals have received Greenlight Committee recommendation for advancement;
- (d) **\$521.9 million** of proposals have been vetted by the Investment & Risk Committee (“**IRC**”) and approved by NYSERDA’s President & CEO; and
- (e) **\$457.5 million** of transactions have been closed - comprising NYGB’s Overall Investments to Date - mobilizing public and private investments to support in the range of **\$1.39 to \$1.63 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 **\$704.2 million**.

⁴ Case 13-M-0412, “NY Green Bank – Metrics, Reporting & Evaluation Plan”, Version 3.0, dated June 20, 2016.

⁵ Note that all these amounts change over time as proposals and transactions evolve.

Figure 1. Transaction Status & Active Pipeline (\$ Millions): Year-on-Year Review



3.2 Investment Portfolio

3.2.1 Highlights

In the quarter ended March 31, 2018, NYGB extended the capital availability period to Sunrun Inc. given their strong pipeline performance over the past two years. The extension of the Sunrun commitment, combined into NYGB’s 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.⁶ In turn, the CEF objectives support the NYS Clean Energy Standard (“CES”) goal of 50.0% energy generation from renewable sources, and the State Energy Plan (“SEP”) goal of 23.0% reduction in energy consumption by buildings from 2012 levels, which together further the SEP goal of 40.0% reduction in GHG emissions from 1990 levels by 2030.

During the period, NYGB also issued a Request for Information (“RFI”) – targeting private sector investors seeking to generate greater financing for interconnection expenses involved in developing clean energy projects. More details of the RFI are included in [Section 3.4](#).

⁶ 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 Transaction Amendments

Sunrun Inc. – Increasing Opportunities for NY Residents to Go Solar, Expanding Market Liquidity (Updated)

- *Reduces GHG emissions by up to 1,256,000 metric tons over the 25-year life of the underlying assets, with an incremental 652,000 metric tons attributed to the most recent transactions (closed on March 27, 2018)*
- *Generates at least 2,148,000 MWh of renewable energy over the life of the underlying projects, with an incremental 1,383,000 MWh attributed to the most recent transactions*
- *Increases renewable energy installed generation capacity by at least 73.0 MW, with an incremental 47.0 MW attributed to the most recent transactions*

Construction Loan Facility

On June 16, 2016, NYGB committed \$25.0 million which, along with financing from other lenders, allowed Sunrun to increase its existing revolver from \$205.0 million to \$250.0 million. The revolver (“**Construction Loan Facility**” or “**CLF**”) is being used by Sunrun to fund customer acquisition, purchase of materials, and construction and installation of residential solar energy systems, and ultimately be refinanced through Post-Construction Aggregation Facilities (described below) and tax equity commitments arranged by Sunrun. On February 23, 2018, NYGB and the lender group consented to extend the maturity of the CLF by two years in support of Sunrun’s consistent and growing deployment rate in NYS and nationally. NYGB’s continued participation in this consortium of capital providers broadens the availability of construction financing for distributed energy projects for homeowners across NYS.

Post-Construction Aggregation Facilities

On May 13, 2016, NYGB closed a \$25.0 million commitment to participate in a transaction consisting of two post-construction credit facilities – a loan aggregation revolver and a term loan, which were expected to accelerate the deployment of over 5,000 solar projects at homes across NYS. The transaction was part of a broader \$340.0 million financing (the “**Post-Construction Aggregation Facilities**”) arranged by Investec that provides Sunrun with a larger financing to expand its business in NYS and elsewhere. On March 27, 2018, NYGB and the lender group consented to extend the deployment period and the maturity of the Post-Construction Aggregation Facilities by over two years based on Sunrun’s demonstrated ability to continually deploy solar PV projects in NYS and nationally.

In total, NYGB has three ongoing transactions with Sunrun, a national solar provider that markets and develops residential solar energy systems. The three complementary transactions (one construction financing and two post-construction financings) aggregate bundled pools of residential solar systems that will ultimately be refinanced through one or more longer-term take-out financings. Given that the bank market for such credit facilities remains limited, NYGB’s participation enables larger aggregation facilities than would otherwise be available, resulting in longer-term takeout refinancings at a scale greater than what might otherwise be achieved. Through increased scale, the aggregation-to-term transactions are expected (post-aggregation) to draw new investors and financial institutions into the marketplace, decreasing the cost of capital for solar developers and installers, and in turn, the cost of solar power equipment sold or leased to homeowners.

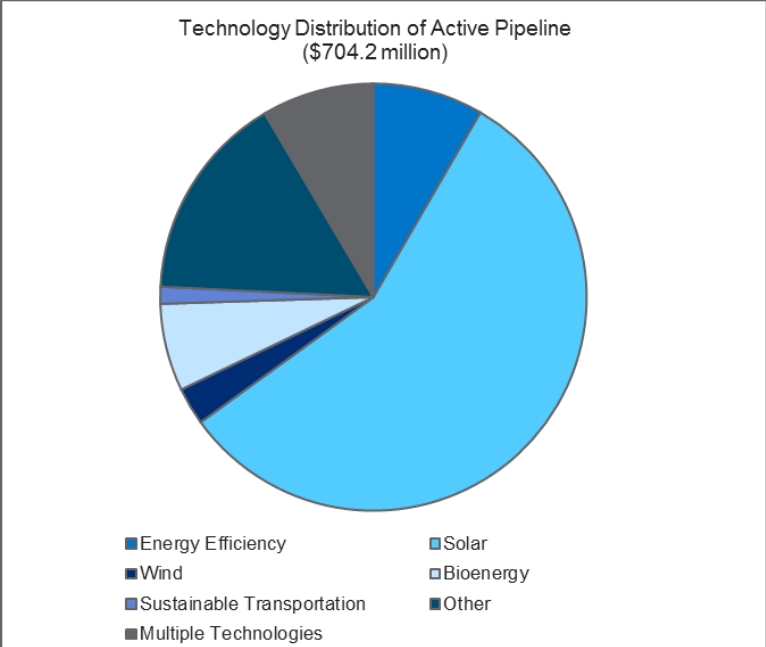
Further details on all NYGB’s investments are contained in the Transaction Profiles publicly available on NYGB’s website at www.greenbank.ny.gov/Investments/Portfolio, and the Transaction Profile for the investments described above are also included in the Schedule to this Report.

3.3 Active Pipeline

Demand for NYGB investment is evidenced by the total value of proposals that have been submitted to NYGB in

response to its open solicitations for investment proposals (the “**Investment RFPs**”).⁷ Through March 31, 2018, proposals requesting over \$2.6 billion of NYGB capital have been received. NYGB’s Active Pipeline at March 31, 2018 is \$704.2 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



⁷ Clean Energy Financing Arrangements – Request for Proposals (RFP) No. 1, Construction & Back-Leveraged Financing for Ground-Mounted Solar Generation Systems Targeting Corporate & Industrial End-Users - RFP No. 7, Efficiency & Renewables Financing Arrangements: Building & Property Owners – RFP No. 8, and Construction and Aggregation-to-Term Financing for CDG Solar Projects – RFP No. 10, all available at www.greenbank.ny.gov/Work-with-Us/Open-Solicitations.

Figure 3. Active Pipeline by End-Use Customer Segment

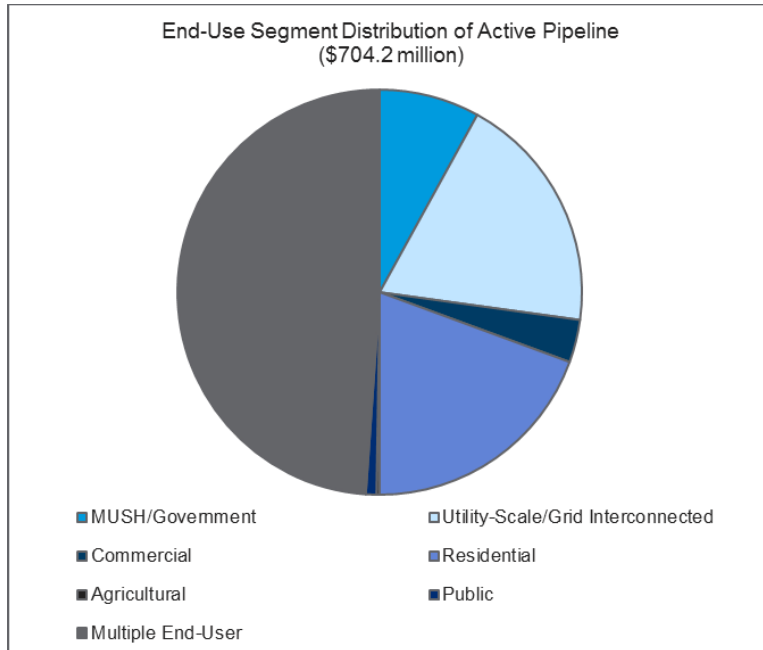
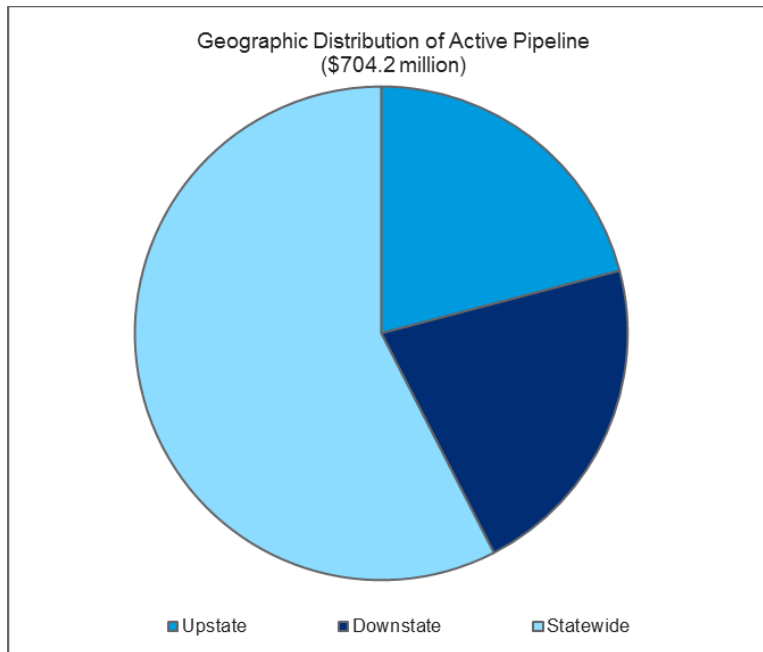


Figure 4. Active Pipeline by Geographic Distribution



3.4 Strategic, Operational & Risk Matters

In the quarter ended March 31, 2018, 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) NYGB Expansion Efforts: As described in NYGB’s previous Quarterly Report, filed February 14, 2018, Governor Cuomo announced in the Fall of 2017 that NYGB would seek at least an additional \$1.0 billion from the private sector and expand its investment activities nationally. In December 2017, NYGB publicly issued its “Strategic Advisory & Capital Arranger Services – Request for Proposals” (“RFP 9”) and hosted an informational webinar focused on the RFP 9 opportunity for potential proposers. On the proposal due date, multiple proposals were received, and these have been evaluated. Moelis & Company has been selected to provide financial advisory and private placement services and the advisory scope of work is underway. Throughout the exploration of this strategic initiative, NYGB continues to focus on developing innovative capital solutions to deploy more sustainable infrastructure in and for the benefit of NYS and delivering on Governor Cuomo’s ambitious climate goals.
- (b) New Investment Solicitation Launched: To complement NYGB’s ongoing investment solicitation “Clean Energy Financing Arrangements – Request for Proposals” (RFP 1), in February 2018, NYGB launched a new Request for Information: *Financing Interconnection Payments for Clean Energy Projects in New York State* (RFI 3). RFI 3 targets private sector investors seeking to generate greater financing for interconnection expenses involved in developing clean energy projects. Increased funding availability is necessary to support grid upgrades, as required by utilities, to integrate new clean energy generation throughout New York State. The purpose of RFI 3 is to acquire information that will help NYGB assess the interest of capital providers in financing requisite interconnection payments alongside NYGB for grid upgrades.
- (c) Advancing Energy Storage Opportunities: On January 2, 2018, in the annual State-of-the-State address, Governor Cuomo outlined a comprehensive agenda to combat climate change, announcing an unprecedented energy storage target of 1,500 MW by 2025 in order to increase transmission of clean and renewable energy in the State. To support the deployment of the initiative, the Governor proposed a commitment of at least \$200 million from NYGB for storage-related investments to help drive down costs and to strategically deploy energy storage to where the grid needs it most.

Since these announcements, NYGB has seen significant interest from market participants and expects there to be a large market opportunity in New York for such storage projects in future. In anticipation of increased market activity, NYGB is working closely with NYSERDA colleagues to ensure it is well positioned to advance storage in NYS and NYGB stands ready to engage early in financing efforts to further standardize and scale up the market.

- (d) Continuing Stakeholder Outreach & Communications: Highlights of specific outreach initiatives in the period to which this Report relates include:
- i. Participation in 12 events including the SolarWakeUp Live! podcast event in NYC,⁸ where Alfred Griffin, President of NYGB spoke to a group of solar market participants including developers, financiers, attorneys and policymakers; NY-BEST Annual Meeting & Conference: Capture the Energy, to discuss the opportunities in the New York State energy storage market and how those seeking to advance their energy storage activities in NYS can work with NYGB; and the Financial Times Climate Finance Summit to discuss current trends and opportunities for climate finance in the US market;
 - ii. NYGB provided insight and expertise in support of the “Unlocking Private Capital to Finance Sustainable Infrastructure Report”⁹ – issued by the Environmental Defense Fund. This report proposes a new framework to enable state and local governments to mobilize private investment to repair existing, and build new, infrastructure that can mitigate the effects of extreme weather events. A case study highlighting NYGB’s role in providing innovative solutions for sustainable infrastructure financing was highlighted in the report; and

⁸ SolarWakeUp Podcast: www.solarwakeup.com/2018/02/19/e037-alfred-griffin-president-ny-green-bank-at-solarwakeup-live-new-york/.

⁹ See: www.business.edf.org/files/2017/09/EDF_Unlocking-Private-Capital-to-Finance-Sustainable-Infrastructure_FINAL.pdf.

- iii. NYGB worked closely with the Green Bank Network to develop a Green Bank Network Brief titled “How Green Banks Assess and Report Impacts”¹⁰ outlining how each Green Bank tracks and reports on overall impacts. This report highlights, for market participants and all other stakeholders, approaches used in different jurisdictions to show that green financing entities are capable of delivering on financial and non-financial goals. This report serves as a resource for investors looking to align their portfolios with climate goals and was issued in conjunction with an informational webinar featuring Caroline Angoorly, Chief Operating Officer of NYGB.

- (e) **Public Reporting & Metrics:** Filed the Quarterly Report for the period ending December 31, 2017 (on February 14, 2018), as required by the Metrics Plan, which is available at www.greenbank.ny.gov/Resources/Public-Filings. Note NYGB that will be hosting its regular Quarterly Review Webinar on May 31, 2018, which will be an opportunity to learn about NYGB’s latest developments and activities from its most recent fiscal quarter, including newly closed transactions.¹¹

4 Quarterly Metrics

Required metrics for the period January 1, through March 31, 2018 are set out in Table 1.¹²

Table 1. Quarterly Metrics

Quarterly Metric	Prior Quarter	Current Quarter
Capital Position		
▪ Authorized Capital (\$)	\$1.0 billion	\$1.0 billion
▪ Authorized Administrative Expenses (\$)	\$17.6 million	\$17.6 million
▪ Authorized Evaluation Expenses (\$)	\$4.0 million	\$4.0 million
Operational Matters		
▪ Cumulative Revenues (\$) ¹³	\$27.6 million	\$32.6 million
▪ Cumulative Operating Expenses (\$) ¹⁴	\$22.7 million	\$25.1 million
▪ Direct Operating Expenses (\$)	\$13.3 million	\$15.0 million
▪ Allocated Expenses (\$)	\$9.4 million	\$10.1 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 (\$)	\$90.0 million	\$78.2 million

¹⁰ See: www.nrdc.org/sites/default/files/green-banks-assess-report-impacts-ib.pdf.

¹¹ Details of the online registration portal can be found at: www.nyserda-events.webex.com/nyserda-events/onstage/g.php?MTID=e4487dcf3008a33469e60518b8b2a5521.

¹² In connection with all energy and environmental metrics reported, note that NYGB monitors its counterparties’ clean energy project installations throughout the duration of each investment through the receipt and review of periodic reports. Based on information received, NYGB continually manages the actual and expected energy and environmental benefits across its overall portfolio. As new information becomes available informing NYGB of NYS market uptake of clean energy projects, NYGB may correspondingly adjust (up or down) the overall portfolio’s high and low estimated Total Project Costs and energy and environmental metrics (identified at closing of each investment, working with the relevant clients and counterparties and reflected in Transaction Profiles). This constant monitoring and refinement of expected outcomes improves the accuracy of NYGB’s overall portfolio level estimations of impact benefits as it works towards meeting the CEF objectives to support the NYS CES and SEP goals. Given such periodic adjustments, the aggregate estimated benefits reported in Quarterly Reports will be the most up-to-date and accurate estimate, and so no longer will reflect the sum of the low and high estimated benefits specified in the Transaction Profiles at the time of each transaction close.

¹³ Cumulative Revenues reflect quarterly fair market value adjustments related to NYGB capital held in U.S. Treasury securities, consistent with GAAP. In addition, Cumulative Revenues are always stated net of impairments.

¹⁴ Currently includes \$54,700 in Evaluation Expenses.

Quarterly Metric	Prior Quarter	Current Quarter
▪ Deployed Funds (\$) ¹⁵	\$290.1 million	\$296.2 million
▪ Current Portfolio (\$) ¹⁶	\$380.1 million	\$374.3 million
▪ Overall Investments to Date (\$)	\$457.5 million	\$457.5 million
▪ Total Project Costs (Cumulative) (\$) ¹⁷	In the range of \$1.27 - \$1.50 billion	In the range of \$1.39 - \$1.63 billion
▪ Mobilization Ratio	Tracking at least 3:1 on average across portfolio	Tracking at least 3:1 on average across portfolio ¹⁸
▪ Portfolio Concentrations (%) ¹⁹	65.9% Renewable Energy 11.0% Energy Efficiency 23.0% Other	65.9% Renewable Energy 11.0% Energy Efficiency 23.0% Other ²⁰
▪ Number & Type of NYGB Investments	20 – Renewable Energy 6 – Energy Efficiency 4 – Other	20 – Renewable Energy 6 – Energy Efficiency 4 – Other
▪ Number & General Type of NYGB Counterparties ²¹	49 – Local Development Corporation; Global, Corporate and/or Investment Bank; Regional Bank; Specialty Finance Company; Energy Project Developer; Municipal, University, Schools & Hospitals; Energy Technology Provider & Vendors; Government Authority; Insurance Company	49 – Local Development Corporation; Global, Corporate and/or Investment Bank; Regional Bank; Specialty Finance Company; Energy Project Developer; Municipal, University, Schools & Hospitals; Energy Technology Provider & Vendors; Government Authority; Insurance Company
▪ 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): 737,000 – 815,000 MWh; and 3.97 – 4.37 million MMBtu Estimated Gross Lifetime Clean Energy Generated: 9.35 – 12.9 million MWh	Estimated Gross Lifetime Energy Saved by Fuel Type (Energy Efficiency): 737,000 – 815,000 MWh; and 3.97 – 4.37 million MMBtu Estimated Gross Lifetime Clean Energy Generated: 10.7 – 14.1 million MWh

¹⁵ Deployed Funds as presented in [Table 1](#) is net of all capital repaid to the reporting date.

¹⁶ The dollar value of the Current Portfolio is expected to fluctuate from quarter to quarter, including to reflect any decreases in Committed Funds and/or Deployed Funds. Decreases in Committed Funds could occur, for example, in connection with the release of undrawn funds at the end of an availability period or otherwise consistent with the terms of an investment, while decreases in Deployed Funds occur primarily when NYGB investments are repaid from time to time, allowing those monies to be recycled into new clean energy investments in the State, generating further benefits for ratepayers.

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 a subset 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. As projects progress and the cost of installed equipment and labor are known and reported to NYGB by its counterparties, NYGB will seek to adjust reported values and replace FMV in its aggregated data sets and periodic reporting with reported actual costs.

¹⁸ Given the range of Total Project Costs that NYGB investments mobilize, the Mobilization Ratio also represents a range; currently of 3.0:1 to 3.6:1.

¹⁹ 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.

²⁰ “Other” technology classification includes: CHP, sustainable transportation, 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.

²¹ 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).

Quarterly Metric	Prior Quarter	Current Quarter
<ul style="list-style-type: none"> Estimated Gross First Year²² 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): 50,500 – 56,100 MWh; and 252,000 – 276,000 MMBtu	Estimated Gross First Year Energy Saved by Fuel Type (Energy Efficiency): 50,500 – 56,100 MWh; and 252,000 – 276,000 MMBtu
	Estimated Gross First Year Clean Energy Generated: 396,000 – 541,000 MWh	Estimated Gross First Year Clean Energy Generated: 452,000 – 591,000 MWh
<ul style="list-style-type: none"> Estimated Gross Lifetime Energy Saved from CHP (MWh) for Committed Funds & Deployed Funds 	Estimated Gross Lifetime Energy Saved from CHP: 7,070 – 8,640 MWh	Estimated Gross Lifetime Energy Saved from CHP: 7,070 – 8,640 MWh
<ul style="list-style-type: none"> Estimated Gross First Year Energy Saved from CHP (MWh) for Committed Funds & Deployed Funds 	Estimated Gross First Year Energy Saved from CHP: 293 – 358 MWh	Estimated Gross First Year Energy Saved from CHP: 293 – 358 MWh
<ul style="list-style-type: none"> Estimated Gross Lifetime Energy Savings from CHP (MMBtu)²³ for Committed Funds & Deployed Funds 	Estimated Gross Lifetime Energy Savings from CHP: -(41,000 – 50,100) MMBtu	Estimated Gross Lifetime Energy Savings from CHP: -(41,000 – 50,100) MMBtu
<ul style="list-style-type: none"> Estimated Gross First Year Energy Savings from CHP (MMBtu) for Committed Funds & Deployed Funds 	Estimated Gross First Year Energy Savings from CHP: -(1,700 – 2,070) MMBtu	Estimated Gross First Year Energy Savings from CHP: -(1,700 – 2,070) MMBtu
<ul style="list-style-type: none"> Estimated Gross Clean Energy Generation Installed Capacity from CHP (MW), if applicable, for Committed Funds & Deployed Funds 	1.6 MW	1.6 MW
<ul style="list-style-type: none"> Estimated Gross Clean Energy Generation Installed Capacity (MW), if applicable, for Committed Funds & Deployed Funds 	332.0 – 448.0 MW	378.7 – 490.7 MW
<ul style="list-style-type: none"> Estimated Gross Lifetime GHG Emission Reductions (metric tons) for Committed Funds & Deployed Funds 	5.56 – 7.48 million metric tons	6.29 – 8.13 million metric tons
Investment Pipeline		
<ul style="list-style-type: none"> Active Pipeline (In the Quarter) (\$) 	\$673.2 million	\$704.2 million
Investment Process		
<ul style="list-style-type: none"> Proposals Received – Value (Cumulative) (\$) 	\$2.3 billion	\$2.6 billion
<ul style="list-style-type: none"> Approvals - Scoring Committee (Cumulative) (\$) 	\$2.1 billion	\$2.4 billion
<ul style="list-style-type: none"> Approvals - Greenlight Committee (Cumulative) (\$) 	\$936.0 million	\$974.0 million
<ul style="list-style-type: none"> Approvals - IRC (Cumulative) (\$) 	\$511.8 million	\$521.9 million

²² 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 reports 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.

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-Generation-CHP-Impact-Evaluation-Final.pdf for information on CHP Impact evaluation methods in NYS.

5 Progress Against Plan Deliverables

In its annual Business Plan, filed on June 19, 2017, NYGB identified specific deliverables (the “**Plan Deliverables**”) that collectively mark its progress in implementing key initiatives in the period April 1, 2017 through March 31, 2018 (the “**Plan Year**”).

Progress against the Plan Deliverables is required to be addressed in NYGB’s Quarterly Reports, together with a brief narrative (as appropriate) of status and an explanation of any material variances relative to expectations.

NYGB’s performance against the Plan Deliverables for the quarter ending March 31, 2018 is summarized in Table 2. Since this Report covers the period that marks the end of the Plan Year, the summary commentary contained in Table 2 also addresses the corresponding annual achievements. A detailed report of NYGB’s activities and achievements in the Plan Year just ended will be contained in the Annual Review 2017- 18 and Annual Business Plan 2018 – 19, to be filed on June 19, 2018.

Table 2. Status of Plan Deliverables (2017 – 2018)

Category	Deliverable	Status in Quarter Ending March 31, 2018
Strong Active Pipeline		
<ul style="list-style-type: none"> ▪ Active Pipeline 	<ul style="list-style-type: none"> ▪ Maintain an Active Pipeline of at least \$300.0 million on average throughout the year. 	<ul style="list-style-type: none"> ☑ Achieved for this Quarter: Active Pipeline of \$704.2 million. ☑ Achieved for the Plan Year: Average Active Pipeline of \$621.2 million per quarter.
<ul style="list-style-type: none"> ▪ Streamline Investment Proposal Submission Process & Data Collection 	<ul style="list-style-type: none"> ▪ Create an online portal for submission of Investment RFPs to NYGB with straight-through processing and data collection in NYGB’s CRM system to make management and reporting tools more efficient and effective. 	<ul style="list-style-type: none"> ☑ Achieved for the Plan Year: In May 2017 NYGB launched the online portal for submission of investment proposals to NYGB pursuant to all current Investment RFPs.²⁴
Portfolio Driving Material Clean Energy Investments Across NYS		
<ul style="list-style-type: none"> ▪ Committed Funds 	<ul style="list-style-type: none"> ▪ Commit \$550.0 million (cumulative) to NYGB investments, equating to an average of \$50.0 million in closed transactions per quarter. 	<ul style="list-style-type: none"> ☒ Not Achieved for this Quarter: An average of \$27.9 million per quarter in the Plan Year. (See additional commentary below). ☒ Not Achieved for the Plan Year: As of March 31, 2018, NYGB has committed \$111.4 million (cumulative) to new clean energy investments. (See additional commentary below).
<ul style="list-style-type: none"> ▪ Issue CDG RFP/RFI 	<ul style="list-style-type: none"> ▪ Publicly Issue RFP/RFI. 	<ul style="list-style-type: none"> ☑ Achieved for the Plan Year: Issued RFP 10 “Construction & Aggregation-to-Term Financing for Community Distributed Generation Solar Projects”.²⁵
<ul style="list-style-type: none"> ▪ Issue Interconnection Bridge Loan RFP/RFI 	<ul style="list-style-type: none"> ▪ Publicly issue RFP/RFI. 	<ul style="list-style-type: none"> ☑ Achieved for the Plan Year: Issued Interconnection Bridge Loan RFI which closed on March 30, 2018.

²⁴ The online portal for submission of investment proposals to NYGB can be accessed for each investment RFP at www.greenbank.ny.gov/Work-with-Us/Open-Solicitations.

²⁵ Available at www.greenbank.ny.gov/Work-with-Us/Open-Solicitations.

Category	Deliverable	Status in Quarter Ending March 31, 2018
<ul style="list-style-type: none"> Perform Initial Evaluation Activities 	<ul style="list-style-type: none"> Engage with independent evaluators to conduct baseline assessments for both financial market transformation and energy and environmental impact of NYGB's Investment Portfolio. 	<ul style="list-style-type: none"> <input checked="" type="checkbox"/> Achieved for the Plan Year: Evaluation activities have commenced.
Mobilizing Private Capital		
<ul style="list-style-type: none"> Mobilization Ratio 	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> <input checked="" type="checkbox"/> Achieved for this Quarter: Current quarter Mobilization Ratio on track at least 3:1 on average across NYGB's portfolio.²⁶ <input checked="" type="checkbox"/> Achieved for the Plan Year: Mobilization Ratio across all quarters of the Plan year consistent with maintaining at least a 3:1 ratio on average across NYGB's portfolio.

Committed Funds Commentary

During the first three quarters of the Plan Year (i.e., through December 31, 2017), NYGB closed new investments totaling \$111.4 million, resulting in Overall Investments to Date (cumulative since inception) of \$457.5 million. As of March 31, 2018, the Overall Investments to Date figure was unchanged.

Due to a variety of conditions (i.e., ongoing U.S. tax treatment, solar tariffs, etc.)²⁷ in the third and fourth quarters of the Plan Year, clean energy projects moving towards close were delayed across a number of fronts, including community distributed generation, a sector of substantial activity and where NYGB expects to deploy substantial capital in the near and medium terms. Although these closings have been delayed, NYGB continues to expect projects in its Active Pipeline to progress towards closing. As we've observed since our inception, closings of project financings can fluctuate from quarter to quarter, but as reflected by NYGB's growing Active Pipeline, now at over \$700 million, NYGB continues to work to move substantial amounts of projects towards close.

NYGB will address the current market characteristics contributing to its overall committed capital in more detail in the Annual Review 2017- 18 and Annual Business Plan 2018 – 19, to be filed on June 19, 2018.

²⁶ Given the range of Total Project Costs that NYGB investments mobilize, the Mobilization Ratio also represents a range; currently of 3.0:1 to 3.6:1.

²⁷ See: <https://www.greentechmedia.com/articles/read/2017-was-weird-for-solar-whats-coming-this-year-and-beyond#gs.zhXC0FU>.

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.



Increasing Opportunities for NY Residents to Go Solar, Expanding Market Liquidity

Sunrun Inc.

NY Green Bank (“NYGB”) has entered into three transactions to accelerate the deployment of more than 11,000 solar projects at homes across New York State (“NYS”) by Sunrun, Inc. (“Sunrun”). Sunrun is a national solar provider that markets and develops residential solar energy systems. The three transactions complement each other – as one provides financing to fund the purchase of materials and installation of the solar projects, and the other two provide post-construction financing. One of the post-construction financings was arranged by Investec Bank PLC (“Investec”), an international specialty bank and asset manager, and the second post-construction financing was arranged by SunTrust Robinson Humphrey Inc. (“SunTrust”) and ING Capital LLC (“ING”).

Transaction Descriptions

Construction Loan Facility

On June 16, 2016, NYGB committed \$25.0 million which, along with financing from other lenders, allows Sunrun to increase its existing revolver from \$205.0 million to \$250.0 million. The revolver (“**Construction Loan Facility**” or “**CLF**”) will be used by Sunrun to fund customer acquisition, purchase of materials, and construction and installation of the systems, and will ultimately be refinanced through Post-Construction Aggregation Facilities (described below) and tax equity commitments arranged by Sunrun. On February 23, 2018, NYGB and the lender group consented to extend the maturity of the CLF by two years in support of Sunrun’s consistent and growing deployment rate in NYS and nationally. NYGB’s continued participation in this consortium of capital providers broadens the availability of construction financing for distributed energy projects for homeowners across NYS.

Post-Construction Aggregation Facilities

On May 13, 2016, NYGB closed a \$25.0 million commitment to participate in a transaction consisting of two credit facilities – a loan aggregation revolver and a term loan (together the “**NYGB Loan Products**”), which are expected to accelerate the deployment of over 5,000 solar projects at homes across NYS. The transaction was part of a broader \$340.0 million financing (the “**Post-Construction Aggregation Facilities**”) arranged by Investec that provides Sunrun with a larger financing to expand its business in NYS and elsewhere. The \$340.0 million Post-Construction Aggregation Facilities (which include the NYGB Loan Products) represent one of the largest aggregation financings for a residential solar developer at the time of closing. On March 27, 2018, NYGB and the lender group consented to extend the deployment period and the maturity of the Post-Construction Aggregation Facilities by over two years based on Sunrun’s demonstrated ability to continually deploy solar PV projects in NYS and nationally.

SunTrust/ING Credit Facilities

On May 9, 2017, NYGB closed a \$15.0 million commitment to participate in an aggregation-to-term loan facility. The transaction was part of a \$202.0 million financing (the “**SunTrust/ING Credit Facilities**”) arranged by SunTrust and ING that provides Sunrun with a larger financing to expand its business in NYS and elsewhere. The \$202.0 million SunTrust/ING Credit Facilities support a \$100.0 million equity partnership with National Grid plc, an international utility

¹ Refer to the Summary of Changes document for details of updates, available at www.greenbank.ny.gov/Investments/Transaction-Profiles.

with a sizeable NYS presence. Through increased scale, the aggregation-to-term transactions are expected post-aggregation to draw new investors and financial institutions into the marketplace, decreasing the cost of capital for solar developers and installers, and in turn, the cost of solar power equipment sold or leased to homeowners.

Overall Context

Sunrun sought NYGB’s participation in the CLF, SunTrust/ING Credit Facilities and Investec Credit Facilities to provide further liquidity to support Sunrun’s capital needs in growing its business. With both construction and longer-term financing in place, Sunrun is well positioned to meet the growing demand from homeowners and expand its ability to finance the installation of solar projects throughout NYS.

These complementary transactions will result in the aggregation of bundled pools of residential solar systems that will ultimately be refinanced through one or more longer-term take-out financings. Such refinancings may include a securitization – the sale of underlying cash flows resulting from residential leases or power purchase agreements (“PPAs”) to third party investors – providing additional avenues to develop and scale the emerging residential solar asset class, both for Sunrun and other market participants. Given that the bank market for such credit facilities remains limited, NYGB’s participation enables larger aggregation facilities than would otherwise be available, resulting in longer term takeout refinancings at a scale greater than might otherwise be achieved. Greater scale means greater investor interest, which will ultimately result in more attractive debt pricing that will benefit New Yorkers via more attractively priced contracts under which power is purchased.

This Transaction Profile is provided pursuant to the updated “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, 2016.² This Transaction Profile contains specific information in connection with the Post-Construction Aggregation Facilities (entered into on May 13, 2016), the ING/SunTrust Credit Facilities (entered into on May 9, 2017) and the CLF (entered into on June 16, 2016) as required by the Metrics Plan.³

Form of NYGB Investment

NYGB Product	Product Sub-Type	Committed Capital
Warehousing/Aggregation	Senior Secured Revolver and Subordinated Term Loan	\$25.0 million
Warehousing/Aggregation	Senior Secured Aggregation-to-Term Loan	\$15.0 million
Asset Loan & Investment	Construction Financing Revolver	\$25.0 million

Location(s) of Underlying Project(s)

Statewide.⁴ Sunrun’s solar power generation systems will be offered to homeowners through PPA structures in regions across NYS.

Types of Organizations that are Transaction Participants

	Name	Participant Type
Clients	Investec	Global Corporate & Investment Bank
	SunTrust	Global Corporate & Investment Bank
	ING	Global Corporate & Investment Bank
Key Counterparties	Sunrun	Solar Energy Project Developer
	National Grid	International Utility & Equity Co-Sponsor
Financiers (current)	Various tax equity providers and commercial banks	Global Corporate & Investment Banks, Commercial/Regional Banks

² Cases 13-M-0412 and 14-M-0094.

³ See Section 4.0, page 8 and Schedule 3.

⁴ Defined as projects located in four or more regions of the State.

Name		Participant Type
Financiers (future)	To be identified	Institutional Investors(s)

Summary of Financing Market Objectives & Barriers Addressed

Beneficiary	Market Barrier	Financing Solution
Capital Market Participants	In clean energy markets, there is only a small (but growing) number of lenders actively financing residential solar projects.	NYGB participation in all three transactions facilitates the ability to achieve substantial transaction scale. This will enable much larger post-aggregation term financings, which may include securitizations, resulting in broader market penetration and enhanced liquidity, both key NYGB goals.
Solar Project Developers	Many solar developers face the challenge of securing sufficient financing to meet customer demand – hampering their ability to grow and achieve economies of scale.	NYGB’s participation in the CLF, the Investec Facilities and SunTrust/ING Facilities will enable Sunrun to better meet residential demand in NYS. This type of financing can also be replicated with other developers seeking to secure similar capital access.
Homeowners	“Going solar” is not perceived by some homeowners as being practical or affordable, and some questions as to benefits to be realized remain.	NYGB participation in all three transactions will produce benefits for eligible homeowners seeking to utilize solar power, as homeowners will have greater ability to contract for solar, while simultaneously realizing immediate reductions on their energy bill. Greater scale and deeper and broader financing markets will lead to even more compelling offerings being made available to homeowners and more information available on benefits.

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 greenhouse gas [(‘GHG’)] reductions in support of New York’s energy policies”.⁵ In addition, the Metrics Plan requires that the following energy and environmental measures, applicable to this transaction, be reported on⁶:

- Estimated gross lifetime and first-year clean energy generated (MWh);⁷
- Estimated gross clean energy generation installed capacity (MW); and
- Estimated gross lifetime and first-year GHG emission reductions (metric tons).

The estimated gross lifetime and first-year energy and environmental impacts of Sunrun’s development in NYS, facilitated by NYGB’s participation in the Investec Credit Facilities, the CLF and the Sun Trust/ING Credit Facilities, are as follows:

⁵ 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.

⁶ See Metrics Plan, Section 2.0, pages 2 – 6.

⁷ First year gross energy generation refers to the first year of estimated gross 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.

Energy/Environmental Impact	Lifetime Low Estimate	Lifetime High Estimate	First-Year Low Estimate	First-Year High Estimate
Estimated gross clean energy generated (MWh)	2,148,000	2,390,000	85,900	95,500
Estimated gross clean energy generation installed capacity (MW) ⁸	73	81	Not Applicable	
Estimated gross GHG emission reductions (metric tons) ⁹	1,130,000	1,256,000	45,200	50,200

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 in which NYGB has participated and will occur approximately three to five years following initial NYGB capital deployments. Baseline data will be collected in 2018 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.¹⁰

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:

- Number and location of projects (by zip code);
- Size (generation capacity and dollar value) of projects;
- Market volume of projects increases; and
- Favorable financial and 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 awareness of clean energy benefits amongst financing entities as a result of favorable technology performance data;
- Investment risk/default rates become increasingly attractive to investors, as a result of positive financial performance data;
- Increased number of financial participants providing similar capital structures;
- Replication of finance model by other developers;
- Decreased project technology costs;
- Increased number of clean energy financings;
- Emergence of secondary markets for clean energy asset classes; and
- Reduced time to execute clean energy financings.

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 (homeowners, 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 2018 and later follow-up studies will assess progress against baseline level. The specific timing of these efforts may be revised based on experience or other factors as the investment evolves.

Impact evaluation will be based on the size of the systems installed and the projected clean energy generation.

⁸ Built clean energy generation capacity at full deployment of funds is the same for first-year and lifetime duration.

⁹ 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.

¹⁰ See Metrics Plan, Section 3.3 at page 7.

As with all NYGB investments, Sunrun 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 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 also be made to coordinate market and impact evaluation activities for these projects that receive support from multiple sources in order to maximize the efficiency of data collection and avoid participant survey fatigue.