



NY Green Bank
A Division of NYSERDA

NY Green Bank

Metrics, Reporting & Evaluation

Quarterly Report No. 22
(Through December 31, 2019)

Case 13-M-0412

February 14, 2020

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1 Performance at a Glance – As of December 31, 2019

Stimulating New Clean Energy Proposals in the State

NY Green Bank (“**NYGB**”) has received over **\$3.9 billion** in investment proposals since inception.

Strong Active Pipeline

The Active Pipeline of potential investments proceeding to close was **\$625.4 million**.

Driving Material Clean Energy Investments Across NYS

NYGB’s investments support clean energy projects with a total project cost of **between \$2.0 and \$2.4 billion** in aggregate,¹ based on Overall Investments to Date of **\$909.2 million**.

Mobilizing Capital

NYGB’s investment portfolio represents continuing progress toward an expected mobilization ratio of Total Project Costs to NYGB funds of **8:1**, manifesting in \$8.0 billion of clean energy and sustainable infrastructure projects mobilized in New York State (“**NYS**” or the “**State**”) by NYGB activity by December 2025 (including the effect of capital recycling). Currently at up to **\$2.4 billion**.

Revenue Growth - Maintaining Self-Sufficiency

Continued revenue growth – **\$79.4 million** in revenue has been generated since NYGB’s inception. NYGB continues to be self-sufficient through the generation of annual net income.

Contributing to CEF, REV, CES and Other State Targets

NYGB’s investments to date drive estimated gross lifetime greenhouse gas (“**GHG**”) emissions reductions of **between 10.9 and 18.6 million metric tons**,² equivalent to removing **between 151,261 and 183,599 cars** from the road for a period of **23 years**.²

¹ NYGB monitors its counterparties’ clean energy project installation(s) throughout the duration of each investment through the receipt and review of periodic reports as well as updated impact benefit calculation factors advised by the New York State Department of Public Service (“**DPS**”). Based on information received, NYGB continually estimates the actual and expected energy and environmental impact benefits across its portfolio. As new information becomes available, 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). Consistently monitoring and refining expected outcomes improves the accuracy of NYGB’s portfolio-level estimate of impact benefits as it works toward meeting the Clean Energy Fund (“**CEF**”) objectives to support the State’s clean energy goals.

² NYGB’s GHG emission reduction values reflect the estimated effect of both direct and indirect impact benefits – see [Section 4.3](#).

2 Introduction

2.1 Purpose

As a steward of considerable public capital, NYGB periodically reports its progress and performance to allow all stakeholders, including the NYS Public Service Commission (the “**Commission**” or the “**PSC**”), and the general public to assess NYGB’s achievement of its overall mission.

This Quarterly Report (“**Report**”) is filed by NYGB with the Commission pursuant to the Metrics, Reporting & Evaluation Plan developed in consultation with DPS and filed with the Commission (the “**Metrics Plan**”).³

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

2.2 NYGB Mission & Operating Principles

NYGB’s mission is to accelerate clean energy deployment in NYS by working in collaboration with the private sector to transform financing markets.

The key elements of NYGB’s mission are to collaborate with private participants, implement solutions that overcome market barriers and transform financial markets to attract greater private sector investment in clean energy by enabling greater scale, new and expanded asset classes and increased liquidity.

NYGB follows certain important operating principles to increase private sector market participation:

- a) Focusing on wholesale capital markets (that is, providing structured financial products to developers and specific projects that result in clean energy benefits for all New Yorkers at scale – rather than funding consumers/homeowners directly);
- b) Structuring financial products to foster replicable sustainable infrastructure investments;
- c) Pricing financial products consistently with commercial approaches to credit quality and risk, earning a return on investment to preserve and grow NYGB’s capital base;
- d) Collaborating with, rather than competing against, market participants that can engage, or are already engaging, the financial markets, but where that engagement or progress is constrained by a lack of available financing; and
- e) Recycling its capital into new clean energy projects when income is generated and as investments mature or are realized, maximizing the impact of its capital across multiple deployments.

2.3 Relationship to NYS Clean Energy Policy

NYGB contributes to the primary CEF objectives of GHG emissions reductions, customer bill savings, energy efficiency, clean energy generation and mobilization of private sector capital.⁴ In turn, the CEF objectives support the State’s clean energy targets, including under the Green New Deal which mandates a significant increase in the State’s Clean Energy Standard (“**CES**”) with a goal of 70.0% energy generation from renewable sources by 2030 and 100.0% carbon-free electricity by 2040.⁵ The CEF objectives also support the Climate

³ Case 13-M-0412, “NY Green Bank – Metrics, Reporting & Evaluation Plan”, Version 3.0, dated June 20, 2016.

⁴ As set out in the CEF Order (Cases 14-M-0094 et al.) issued and effective on January 21, 2016, page 40.

⁵ Announced by Governor Andrew M. Cuomo in the 2019 State of the State.

See www.governor.ny.gov/sites/governor.ny.gov/files/atoms/files/2019StateoftheStateBook.pdf.

Leadership and Community Protection Act (the “CLCPA”),⁶ which puts NYS on a road to economy-wide carbon neutrality, through a target of reducing GHG emissions from all anthropogenic sources 85.0% over 1990 levels by the year 2050, a plan to offset remaining emissions, and an interim mandate of 40.0% GHG emission reductions by 2030.⁷

3 Business Update

3.1 Overview

NYGB closed **five new investments** during the quarter ending December 31, 2019, adding **\$117.5 million** to its investment portfolio. These five new investments are discussed in [Section 3.2](#). During the quarter NYGB exited one of its investments earlier than expected because of a prepayment made by one of its counterparties. At quarter end, NYGB was managing an Active Pipeline of **\$625.4 million**. As discussed in [Section 3.4](#), NYGB also continued its public outreach and business development efforts. During the final quarter of 2019, NYGB selected a slate of technical, engineering, service and law firms capable of providing support for its operations and transactions. [Section 4](#) presents estimated and actual environmental and financial performance metrics related to NYGB’s portfolio.

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

- (a) Transactions that are in process but not yet closed, which collectively comprise NYGB’s pipeline; and
- (b) Transactions that have closed, which collectively comprise NYGB’s investments.

Each proposed NYGB investment is categorized by the stage it has reached in NYGB’s internal credit underwriting and transaction execution processes.

NYGB’s overall transaction status and Active Pipeline are summarized in *Figure 2* showing that from inception through December 31, 2019:

- (a) NYGB has received, and its Scoring Committee has evaluated, over **\$3.9 billion** of proposals;
- (b) NYGB’s Scoring Committee has evaluated and passed **\$3.7 billion** of proposals – representing potential investments that meet NYGB’s mandate and proposal evaluation criteria;
- (c) NYGB’s Greenlight Committee has recommended **\$1.6 billion** of proposals for advancement;
- (d) The Investment & Risk Committee (“IRC”) and NYSERDA’s President & CEO have vetted and approved **\$1.0 billion** of proposals; and
- (e) NYGB has closed **\$909.2 million** of transactions – comprising NYGB’s Overall Investments to Date – mobilizing public and private investments to support in the range of **\$2.0 to \$2.4 billion** in Total Project Costs for clean energy deployment in the State.

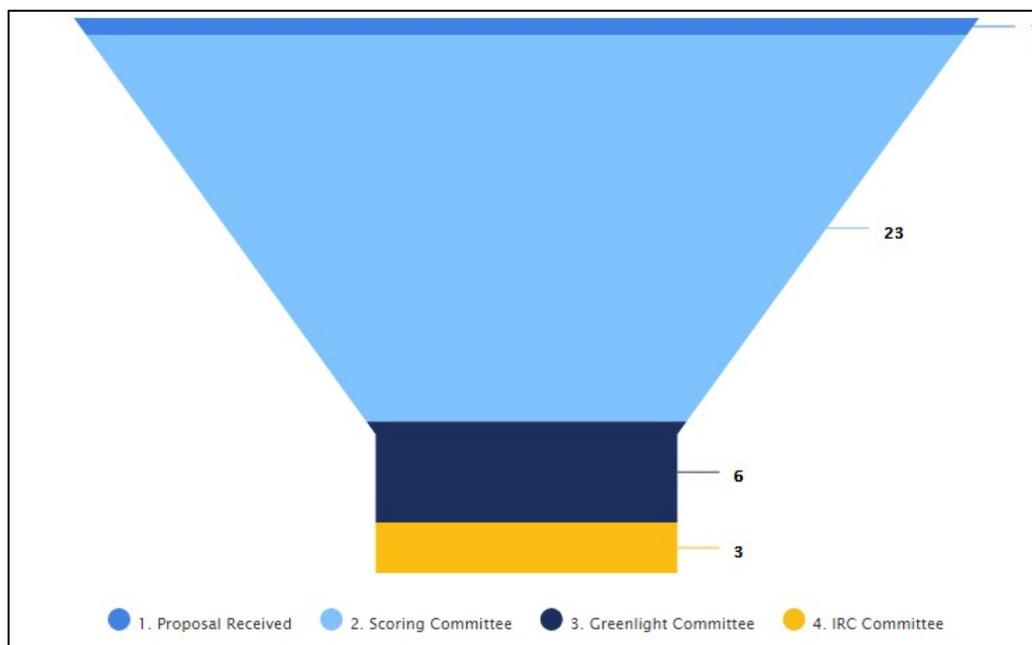
⁶ Governor Cuomo signed Senate Bill S6599 into law on July 18, 2019. See legislation.nysenate.gov/pdf/bills/2019/a8429.

⁷ The CLCPA codified and expanded New York’s Green New Deal and other nation-leading clean energy and climate targets for the State, including: (a) quadrupling New York’s offshore wind target to 9,000 MW by 2035 (up from 2,400 MW by 2030); (b) doubling distributed solar deployment to 6,000 MW by 2025 (up from 3,000 MW by 2023); (c) deploying 3,000 MW of energy storage by 2030 (up from 1,500 MW by 2025); (d) more than doubling new large-scale land-based wind and solar resources through the CES; (e) maximizing the contributions and potential of New York’s existing renewable resources; (f) expanding and enhancing the Solar For All Program to increase access to affordable and clean energy for low-income, environmental justice and other underserved communities; and (g) initiatives to achieve carbon neutral building stock Statewide, including through the energy efficiency target to reduce energy consumption by 185 trillion Btus below forecasted energy use in 2025.

3.2 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 (collectively, the “Investment RFPs”).⁸ Through December 31, 2019, NYGB has received proposals requesting over \$3.9 billion of NYGB capital. NYGB’s Active Pipeline at December 31, 2019 was \$625.4 million as shown in Figure 1. Figure 2 shows a comparison between the Active Pipeline and Investment Portfolio as of December 31, 2018 and December 31, 2019. Figures 3, 4 and 5 below show the distribution of proposed investments in NYGB’s Active Pipeline by technology, end-use customer segment and geography.

Figure 1. Active Pipeline by Investment Stage (\$625.4 Million)



⁸ At the time of this Report, NYGB has five open investment solicitations (“RFPs”), all of which are continuous, with proposals evaluated as they are received: [RFP 1: Clean Energy Financing Arrangements](#); [RFP 7: Construction & Back-Leveraged Financing for Ground-Mounted Solar Generation Systems Targeting Corporate & Industrial End-Users](#); [RFP 8: Financing Arrangements for Renewable & Energy Efficiency Projects: Office, Commercial & Industrial, and Multi-Family Real Estate Properties](#); [RFP 10: Financing for CDG Solar Projects Including Projects Paired with Energy Storage](#); and [RFP 13: Financing for Energy Storage Projects](#). All Investment RFPs and access to the portal for the online submission of investment proposals are available at www.greenbank.ny.gov/Work-with-Us/Open-Solicitations.

Figure 2. Transaction Status & Active Pipeline (\$ Millions): Year-on-Year

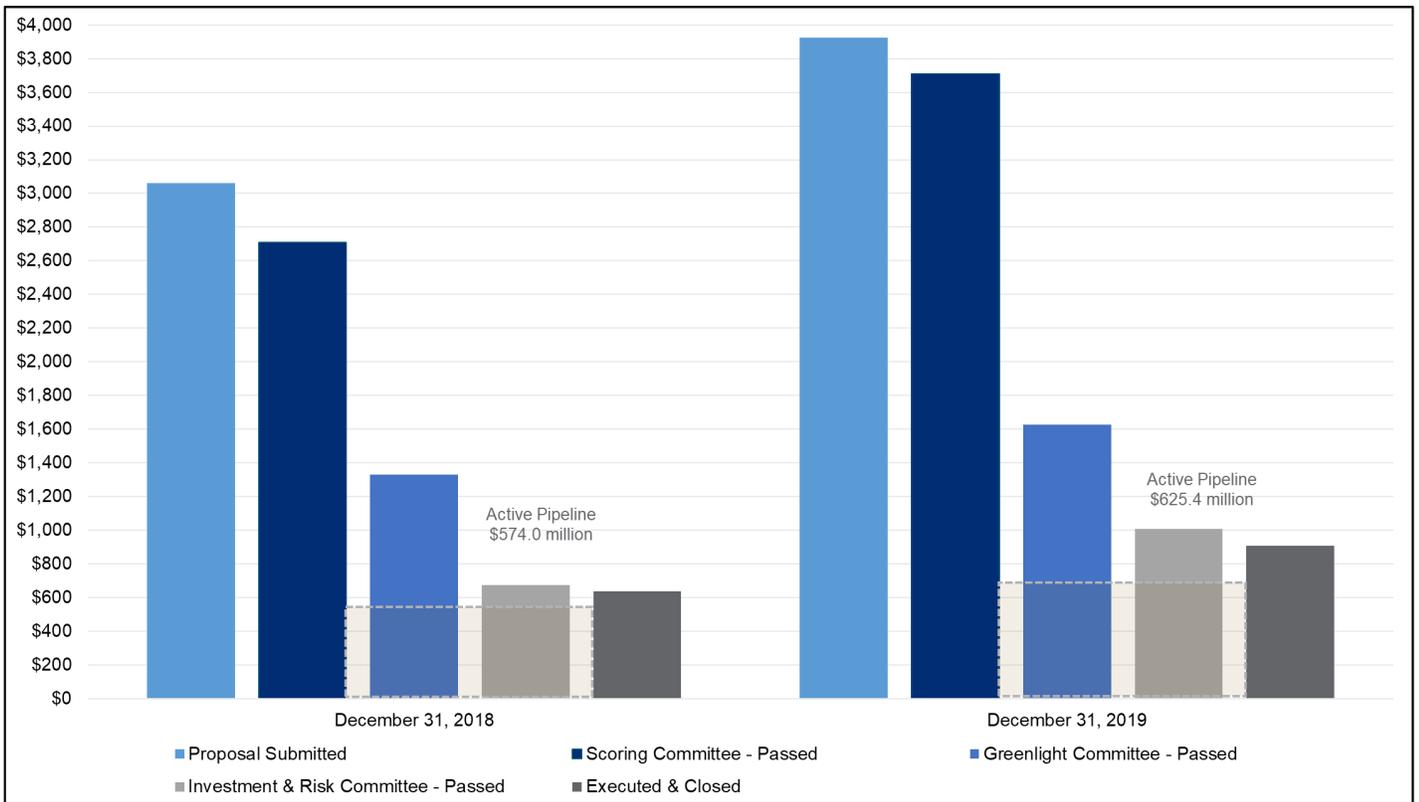


Figure 3. Active Pipeline by Technology

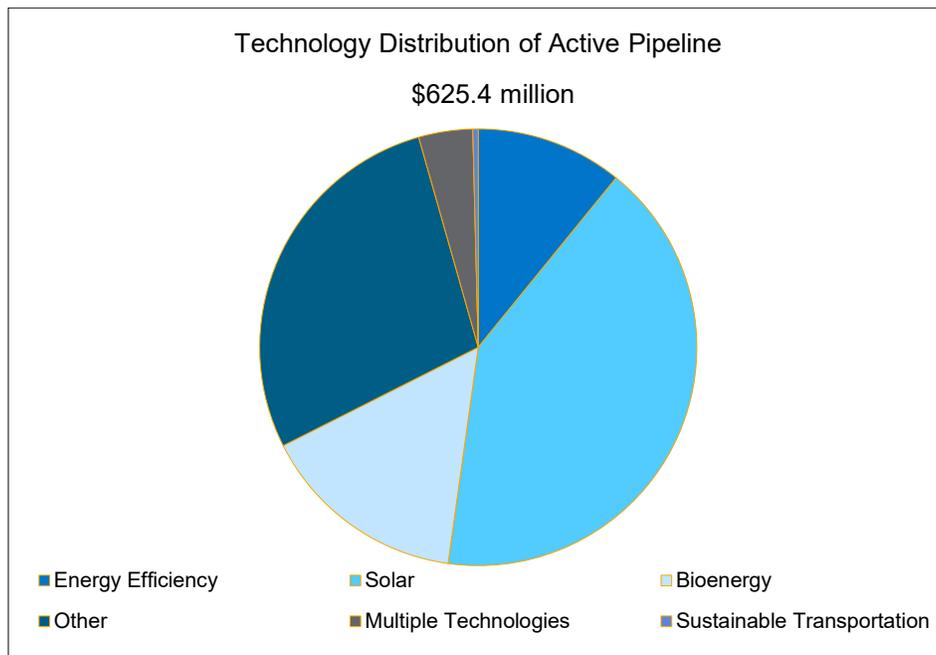


Figure 4. Active Pipeline by End-Use Customer Segment

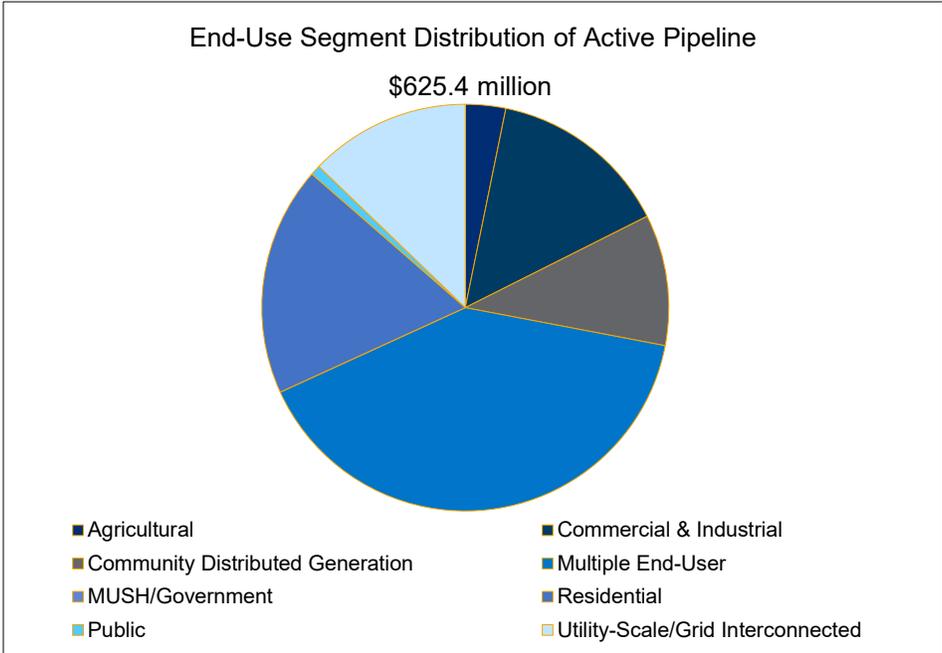
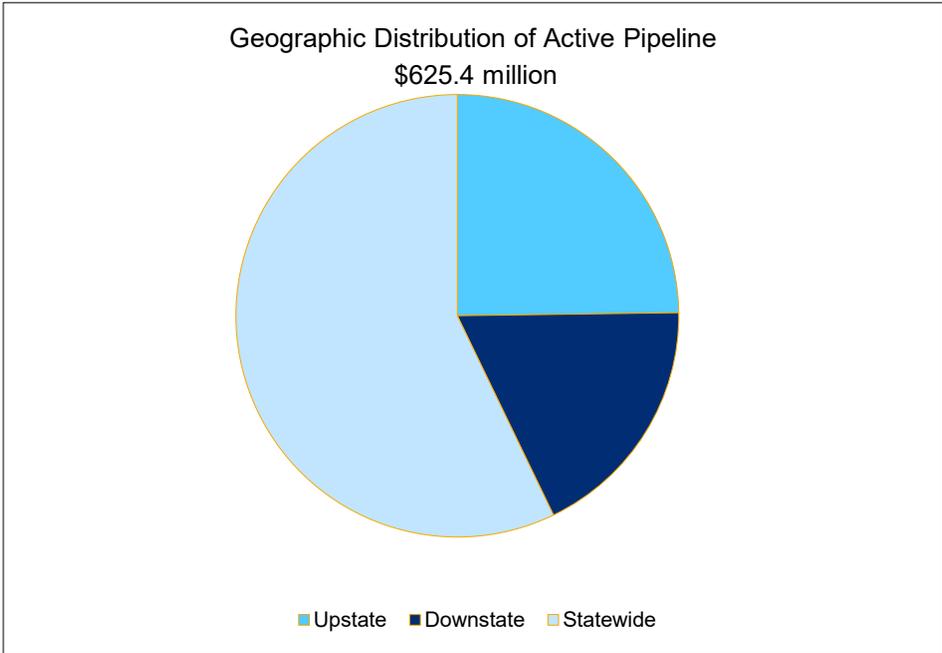


Figure 5. Active Pipeline by Geographic Distribution



3.3 Investment Portfolio

NYGB committed more capital in the quarter ended December 31, 2019 than any previous quarter since its inception. Four of the five investments made during the quarter were supported by distributed solar projects. NYGB continued to offer bridge financing products to solar developers and entered two term loans that will finance solar projects in NYS. Additionally, NYGB provided a liquidity solution to an active specialty investment group that allowed the group to leverage an investment and focus on NYS investment opportunities. Further details on all NYGB's investments are contained in the Transaction Profiles, which are publicly available on NYGB's website at www.greenbank.ny.gov/Investments/Portfolio. Transaction Profiles for the investments described in this [Section 3.3](#) are also included in the **Schedule – Transaction Profiles** to this Report.

Eden Renewables – Bridge Loan to Support the Deployment of Community Solar Projects

- Reduces GHG emissions by up to 870,378 metric tons from the underlying projects
- Generates at least 745,700 MWh of renewable energy from the underlying projects
- Increases renewable energy installed generation capacity by at least 25.3 MW

Eden Renewables is developing a portfolio of Community Distributed Generation (“**CDG**”) solar projects in NYS and requested that NYGB provide a \$2.5 million bridge loan to finance interconnection deposits to National Grid for such projects, due under the NYS PSC Standardized Interconnection Requirements and Application Process.⁹

This transaction is expected to support up to 84.5 MW of solar assets in the State which is expected to: (i) provide commercial and residential project subscribers access to reliable, clean, low-cost energy; and (ii) reduce at least 373,019 metric tons of GHG emissions annually in NYS. As there has been an increasingly strong demand for CDG solar throughout NYS, capital providers are recognizing, and will continue to recognize, the value in providing financing to enable the deployment of these projects. NYGB expects the bridge loan product to serve a template for private capital to build on.

Generate Capital – Accelerating Clean Energy Investment in NYS

- Reduces GHG emissions by up to 246,574 metric tons from the underlying projects
- Generates at least 434,934 MWh of renewable energy from the underlying projects
- Increases renewable energy installed generation capacity by at least 17.0 MW

Generate Capital (“**Generate**”) operates as a specialty finance company that builds, owns and operates sustainable infrastructure in the United States (“**U.S.**”). NYGB entered into a \$35.0 million facility to support Generate and leverage its illiquid position in a senior secured loan with Plug Power.

Generate has a NYS portfolio and pipeline that includes rooftop solar, community solar, anaerobic digesters, and fuel cells. The facility provides liquidity to Generate to invest in these NYS projects that have the potential to reduce GHG emissions. Generate plans to invest at least \$35.0 million in NYS clean energy projects and will report to NYGB its investment activity in the State. Given its pipeline, Generate expects to invest in at least 17.0 MW of clean energy generating projects, which will deliver environmental and economic development benefits to New Yorkers across the State. By demonstrating to investors that Generate can monetize their interests in business models with limited liquidity, NYGB expects this transaction to attract more investors considering clean energy investments in NYS. This transaction serves as a precedent and signal to this critical market need.

⁹ Under the revised NYS Standardized Interconnection Requirements, within 60 business days of receiving the Coordinated Electric System Interconnection Review (“**CESIR**”) results, interconnection applicants must pay the applicable utility 25.0% of the interconnection upgrade estimates.

AES Distributed Energy – Continued Support of Distributed Generation in the Northeast

- Reduces GHG emissions by up to 668,973 metric tons from the underlying projects
- Generates at least 1,069,872 MWh of renewable energy from the underlying projects
- Increases renewable energy installed generation capacity by at least 36.9 MW

NY Green Bank provided \$50.0 million to participate in a syndicated term loan facility to a portfolio of distributed solar projects to be developed by AES Distributed Energy, Inc. (“AES DE”). The financing was led by Nomura Holding Inc. (“Nomura”). AES DE is an experienced project developer, owner, and operator of renewable energy projects, and is actively managing a project portfolio that consists of community solar, utility scale, and municipal solar projects. The loan proceeds are anticipated to finance 41 distributed generation solar projects in three Northeastern States. The loan syndicate is expected to support 14 distributed NYS solar projects – totaling 46.1 MW or \$97 million in project costs. In addition, three of the projects in the AES DE portfolio currently under construction will support clean energy generation in NYS parks. This transaction is expected to provide NYS residents and businesses a greater variety of energy choices and, ultimately, lower-cost clean energy opportunities. All of these projects will be undertaken in support of corporate goals set by AES DE’s parent company, AES Corp. (NYSE: AES) which aims to decrease its carbon intensity 70% by 2030.

This transaction provides substantial liquidity to an experienced project developer focused on increasing its renewable energy project holdings. Additionally, this transaction will help NYGB continue to demonstrate the viability of CDG projects in NYS, draw new investors into the marketplace, and ultimately lower the cost of capital. Increased solar deployment will continue to drive activity in the State, which will help NYS meet its 6.0 GW solar target by 2025. Consumers expect to be the ultimate beneficiaries in the form of broader access to lower-cost clean energy generation, with corresponding resiliency, affordability, choice, and environmental benefits.

BQ Energy – Supporting the Deployment of Solar Projects in NYS

- Reduces GHG emissions by up to 404,978 metric tons from the underlying projects
- Generates at least 849,571 MWh of renewable energy from the underlying projects
- Increases renewable energy installed generation capacity by at least 14.3 MW

BQ Energy (“BQ”) is a Wappingers Falls, New York-based solar energy project developer specializing in landfill and brownfield site redevelopment. NYGB’s \$10.0 million multi-draw term loan investment finances the costs of BQ’s project development efforts. The investment establishes a structure that can be replicated for other qualified developers to create incremental renewable energy generation and GHG mitigation benefits. It contributes to accelerated development of solar facilities in NY on brownfield/landfills, with offtake arrangements targeting municipalities, universities, schools, hospitals and CDG.

True Green Capital – Continued Support of Distributed Generation in NYS

- Reduces GHG emissions by up to 1,017,902 metric tons from the underlying projects
- Generates at least 1,836,481 MWh of renewable energy from the underlying projects
- Increases renewable energy installed generation capacity by at least 70.2 MW

NYGB is participating with CIT in the first NYS-only CDG portfolio financing arranged by a commercial bank. With its term loan commitment, NYGB expects to support up to 10 community distributed solar projects in NYS totaling up to 70.2 MW.

True Green is a specialized energy infrastructure asset management firm based in Westport, CT with over 550.0 MW of solar power plants operating or under construction across the U.S. This transaction provides liquidity to a sponsor active in the NYS community solar market. Additionally, this transaction will help NYGB continue to demonstrate the viability of distributed generation in the State, draw new investors and financial institutions into the marketplace, and lower the cost of capital related to CDG. Increased solar deployment will continue to drive activity in the State, which will help NYS meet its 6.0 GW solar target by 2025. Consumers are expected to be

the ultimate beneficiaries in the form of broader access to lower-cost clean energy generation, with corresponding resiliency, affordability, choice, and environmental benefits.

3.4 Strategic, Operational & Risk Matters

In the quarter ended December 31, 2019, 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) Continuing Stakeholder Outreach & Communications: NYGB participated in 14 events during the quarter including: presenting at Columbia University’s *Implementing New York’s New Climate Law* describing how NYGB plans to support the CLCPA; highlighting how NYGB can support clean energy projects in municipalities through presentations made during meetings hosted by Clean Energy Communities in Mohawk Valley, Southern Tier, and Finger Lakes regions as part of NYGB’s annual Statewide Meeting Series; presenting its approach to financing energy storage projects during the *NY Energy Market Summit*; and joining a panel during the *Young Professionals in Energy* speaker series in NYC that discussed financing barriers observed in energy storage markets.
- (b) Ribbon-Cutting Ceremony Marks Milestone of two Gigawatts of Solar Capacity Installed in NYS: At the December 17th ribbon-cutting for the ForeFront Power Mechanicville Community Solar Project, NYSERDA announced that two Gigawatts of solar capacity had been installed across the state, underscoring NYS’s position as one of the fastest growing distributed solar markets in the nation. Since 2011 NYS has witnessed remarkable growth in its solar market, including nearly 1,800 percent growth, leveraging \$4.0 billion in private investment, fueling nearly 12,000 jobs and decreasing the cost of solar by nearly 60 percent.¹⁰ NYGB spoke at the ceremony, highlighting its involvement in development financing for the project. This project is one of over 300 MW of community solar or distributed generation projects that have been supported by NYGB with over \$200.0 million in capital commitments toward community solar since 2017. NYGB is proud to play a market-leading role in financing community solar and looks forward to continuing that support in 2020.
- (c) Release of Request for Proposals 13: Financing for Energy Storage Projects: On October 12, 2019, NYGB announced the release of Request for Proposals 13: Financing for Energy Storage Projects. Through this solicitation, NYGB seeks to:
 - i. Accelerate the deployment of energy storage projects; and
 - ii. Provide a financing framework that may be utilized in the future by equity sponsors and private sector lenders.

NYGB invites energy storage project developers and other storage market participants to propose transactions to NYGB under this RFP.

- (d) Progress on Review of RFP 11: In June 2019, NYGB released RFP 11: Technical & Engineering Support & Market Fundamentals & Analysis Services (“RFP 11”). Through this solicitation, NYGB sought proposals from technical, engineering and service firms experienced in a broad variety of renewable energy technologies and other sectors of sustainable infrastructure. As planned, NYGB selected service providers by the end of 2019.
- (e) Legal Service Provider Solicitation Launched: On August 30, 2019, NYGB released RFP 12: Outside Legal Counsel Services (“RFP 12”). Through this solicitation, NYGB sought proposals from law firms interested in serving as outside legal counsel to NYGB in connection with the operations and investment activity of NYGB

¹⁰ See <https://www.nyserda.ny.gov/About/Newsroom/2019-Announcements/2019-12-17-NYSERDA-Announces-Milestone-of-Two-Gigawatts-of-Solar-Capacity-Installed-in-New-York>.

relative to its financing of clean energy and sustainable infrastructure projects and businesses. As planned, NYGB selected service providers by the end of 2019.

(f) Public Reporting & Metrics:

- i. On November 14, 2019, NYGB filed its Quarterly Report for the period ending September 30, 2019, as required by the Metrics Plan (available at www.greenbank.ny.gov/Resources/Public-Filings).
- ii. NYGB will host its regular Quarterly Review Webinar for this Report in early March 2020, including discussion of activities from NYGB's fiscal quarter ending December 31, 2019.

4 Metrics

4.1 Quarterly Metrics

NYGB monitors its counterparties' clean energy project installations throughout the duration of each investment through the receipt and review of periodic reports as well as updated impact benefit calculation factors advised by DPS. Based on information received, NYGB continually manages the actual and expected energy and environmental impact benefits across its 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 and reflected in Transaction Profiles). Consistently monitoring and refining expected outcomes improves the accuracy of NYGB's portfolio-level estimate of impact benefits as it works toward meeting the CEF objectives to support the State's clean energy goals. Given such periodic adjustments, the aggregate estimated benefits reported in Quarterly Reports are the most up-to-date estimates (and no longer reflect the sum of the low and high estimated benefits specified in the Transaction Profiles at the time of each transaction close).

Table 1 presents required metrics for the period October 1, 2019 through December 31, 2019.

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 (\$) ¹¹	\$71.5 million	\$79.4 million
▪ Cumulative Operating Expenses (\$) ¹²	\$41.2 million	\$44.0 million
▪ Direct Operating Expenses (\$) ¹³	\$25.3 million	\$27.0 million
▪ Allocated Expenses (\$)	\$15.9 million	\$17.0 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		

¹¹ Cumulative Revenues include quarterly fair market value adjustments related to NYGB capital held in U.S. Treasury securities, consistent with U.S. generally accepted accounting principles. In addition, Cumulative Revenues are always stated net of impairments.

¹² Cumulative Operating Expenses currently include \$508,820 in evaluation expenses.

¹³ Direct Operating Expenses (since NYGB inception, as reported in Table 1) include approximately \$1.5 million in non-recurring costs associated with NYGB's capital expansion initiative. Costs of this nature are not normally included in operating expenses or the calculation of operating net income. Proper accounting treatment of these amounts will always be reflected in NYGB's annual audited financial statements, including a more detailed breakdown of NYGB's revenue and expenses.

Quarterly Metric	Prior Quarter	Current Quarter
(Cumulative) (\$)	Not Applicable	Not Applicable
Investment Portfolio		
▪ Committed Funds (\$)	\$121.7 million	\$133.8 million
▪ Deployed Funds (\$) ¹⁴	\$352.9 million	\$391.9 million
▪ Current Portfolio (\$) ¹⁵	\$474.6 million	\$525.8 million
▪ Overall Investments to Date (\$)	\$791.7 million	\$909.2 million
▪ Total Project Costs (Cumulative) (\$) ¹⁶	In the range of \$1.9 to \$2.2 billion	In the range of \$2.0 to \$2.4 billion
▪ Mobilization Ratio	Tracking at least 2.6:1 on average across portfolio	Tracking at least 2.6:1 on average across portfolio ¹⁷
▪ Portfolio Concentrations (%) ¹⁸	75.9% Renewable Energy	75.3% Renewable Energy
	9.1% Energy Efficiency	7.0% Energy Efficiency
	15.0% Other	17.7% Other ¹⁹
▪ Number & Type of NYGB Investments	37 – Renewable Energy	41 – Renewable Energy
	9 – Energy Efficiency	9 – Energy Efficiency
	6 – Other	7 – Other
▪ Number & General Type of NYGB Counterparties ²⁰	59 – 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; Transportation	61 – 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; Transportation
Direct Impact Benefits		
▪ Estimated Gross Lifetime Energy Saved by	Estimated Gross Lifetime	Estimated Gross Lifetime

¹⁴ Deployed Funds as presented in Table 1 are net of all capital repaid to the reporting date.

¹⁵ The dollar value of the Current Portfolio is expected to fluctuate from quarter to quarter, including to reflect any increases or decreases in Committed Funds and/or Deployed Funds. Committed Funds increase when new transactions are executed with commitments that have not yet been funded, and/or in connection with existing transactions, where repaid amounts may be available to be redrawn pursuant to the terms of investment agreements. Deployed Funds increase where the total dollars funded into investments exceed amounts repaid in the same period. Decreases in Committed Funds 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. Note that due to rounding for the purposes of presentation in this Report, the sum of Committed Funds and Deployed Funds may not be identical to Current Portfolio. In addition, Current Portfolio is always stated net of any portfolio losses.

¹⁶ 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 seeks to adjust reported values and replace FMV in its aggregated data sets and periodic reporting with reported actual costs.

¹⁷ Given the range of Total Project Costs that NYGB investments mobilize, the Mobilization Ratio also represents a range: currently of 2.3:1 to 2.7:1.

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, 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.

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

Quarterly Metric	Prior Quarter	Current Quarter
Fuel Type from Energy Efficiency Projects (MWh/MMBtu) and/or Estimated Gross Lifetime Clean Energy Generated (MWh) for Committed Funds & Deployed Funds	Energy Saved by Fuel Type (Energy Efficiency): 369,000 – 451,000 MWh; and 1.43 – 2.05 million MMBtu	Energy Saved by Fuel Type (Energy Efficiency): 369,000 – 451,000 MWh; and 1.44 – 2.05 million MMBtu
	Estimated Gross Lifetime Clean Energy Generated: 17.5 – 22.0 million MWh	Estimated Gross Lifetime Clean Energy Generated: 20.2 – 26.4 million MWh
▪ Estimated Gross First Year²¹ 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): 25,800 – 31,600 MWh; and 83,000 – 116,000 MMBtu	Estimated Gross First Year Energy Saved by Fuel Type (Energy Efficiency): 25,800 – 31,600 MWh; and 83,000 – 116,000 MMBtu
	Estimated Gross First Year Clean Energy Generated: 1,176,000 – 1,382,000 MWh	Estimated Gross First Year Clean Energy Generated: 1,282,000 – 1,558,000 MWh
▪ Estimated Gross Lifetime Energy Saved from CHP (MWh) for Committed Funds & Deployed Funds	Estimated Gross Lifetime Energy Saved from CHP: 60,700 – 74,200 MWh	Estimated Gross Lifetime Energy Saved from CHP: 60,700 - 74,200 MWh
▪ Estimated Gross First Year Energy Saved from CHP (MWh) for Committed Funds & Deployed Funds	Estimated Gross First Year Energy Saved from CHP: 2,973 – 3,634 MWh	Estimated Gross First Year Energy Saved from CHP: 2,973 – 3,634 MWh
▪ Estimated Gross Lifetime Energy Savings from CHP (MMBtu)²² for Committed Funds & Deployed Funds	Estimated Gross Lifetime Energy Savings from CHP: 190,900 – 233,300 MMBtu	Estimated Gross Lifetime Energy Savings from CHP: 190,900 – 233,300 MMBtu
▪ Estimated Gross First Year Energy Savings from CHP (MMBtu) for Committed Funds & Deployed Funds	Estimated Gross First Year Energy Savings from CHP: 9,890 – 12,100 MMBtu	Estimated Gross First Year Energy Savings from CHP: 9,890 – 12,100 MMBtu
▪ Estimated Gross Clean Energy Generation Installed Capacity from CHP (MW), if applicable, for Committed Funds & Deployed Funds	1.9 MW	1.9 MW
▪ Estimated Gross Clean Energy Generation Installed Capacity (MW), if applicable, for Committed Funds & Deployed Funds	500.5 – 641.3 MW	592.1 – 792.9 MW
▪ Estimated Gross Lifetime GHG Emission Reductions (metric tons)²³ for Committed Funds & Deployed Funds	9.6 – 12.0 million metric tons	10.9 – 14.2 million metric tons

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.) that 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.

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.nyscrda.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.

²³ NYSERDA utilizes a 1,103 lbs/MWh conversion factor to estimate GHG emissions reductions for electric generation and energy efficiency savings across all components of the CEF.

Quarterly Metric	Prior Quarter	Current Quarter
Indirect Impact Benefits²⁴		
▪ Estimated Lifetime Energy Saved (MWh)	-	-
▪ Estimated Lifetime Energy Saved (MMBtu)	-	-
▪ Estimated Lifetime Clean Energy Generation (MWh)	4.1 – 8.4 million MWh	4.1 – 8.4 million MWh
▪ Estimated Installed Capacity CHP (MW)	-	-
▪ Estimated Installed Capacity (MW)	61.2 – 125.2 MW	61.2 – 125.2 MW
▪ Estimated Lifetime GHG Emissions Reductions (Metric Tons)	2.2 – 4.4 million metric tons	2.2 – 4.4 million metric tons
Investment Pipeline		
▪ Active Pipeline (In the Quarter) (\$)	\$546.7 million	\$625.4 million
Investment Process		
▪ Proposals Received – Value (Cumulative) (\$)	\$3.8 billion	\$3.9 billion
▪ Approvals - Scoring Committee (Cumulative) (\$)	\$3.6 billion	\$3.7 billion
▪ Approvals - Greenlight Committee (Cumulative) (\$)	\$1.5 billion	\$1.6 billion
▪ Approvals - IRC (Cumulative) (\$)	\$828.1 million	\$1.0 billion

4.2 Annual Installed Energy & Environmental Benefits

The Metrics Plan 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.

The purpose of [Table 2](#) is to show the cumulative progress of NYGB's investments (across the whole portfolio) toward delivering the total estimated energy and environmental benefits set out in the Transaction Profiles as investment close.²⁵

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

Energy and Environmental Benefit	Prior Year Increment	Prior Year Cumulative	Current Year Increment	Current Year Cumulative
▪ 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): 18 MWh; and 2,863 MMBtu	Energy Saved by Fuel Type (Energy Efficiency): 13,918 MWh; and 11,827 MMBtu	Energy Saved by Fuel Type (Energy Efficiency): 50 MWh; and 9,801 MMBtu	Energy Saved by Fuel Type (Energy Efficiency): 13,958 MWh; and 9,801 MMBtu
	Clean Energy Generated: 80,649 MWh	Clean Energy Generated: 238,840 MWh	Clean Energy Generated: 81,916 MWh	Clean Energy Generated: 366,669 MWh

²⁴ NYGB reports and tracks Indirect Impact Benefits to reflect the contribution to NYS clean energy goals made by NYGB activities and related incremental value for all NYS consumers.

²⁵ In addition, as NYGB receives actual data from its clients, these are aggregated and included in the overall quarterly estimates per impact category, as contained in Table 1 of each Quarterly Report.

▪ Installed 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)	0 MW	0 MW	0 MW	0 MW
▪ Installed clean energy generation capacity (MW)	69 MW	203 MW	71 MW	314 MW
▪ Installed GHG emission reductions (metric tons)	42,612 metric tons	137,286 metric tons	40,984 metric tons	199,507 metric tons

NYGB’s counterparties reported incremental 71.0 MW of clean energy installed capacity in the State during the 2019 calendar year. This brings NYGB’s cumulative progress of installed projects to 313.5 MW out of the estimated 653.2 MW in aggregate over the life of the existing underlying transactions – representing a 35.0 % increase year-over-year.

NYGB’s Overall investments to Date of \$909.2 million have delivered 199,507 metric tons of annual GHG emissions reductions to New Yorkers, a 30.0% increase year-over-year. These GHG emissions reductions will further increase as NYGB’s counterparties continue to draw down on capital commitments to fund new clean energy project installations, and NYGB continues to close new transactions in 2020 and beyond. To put this into perspective, in December 31, 2018, NYGB’s portfolio of investments was expected to involve the build-out of 507.5 MW of clean energy over deployment periods averaging two to three years. Since then, NYGB’s portfolio of investments has grown to 653.2 MW in underlying projects, and in the past year NYGB’s counterparties have delivered 71.0 MW in NYS, averaging 5.9 MW of new systems installed per month.

4.3 Direct & Indirect Impact Benefits

As NYGB has developed and grown since inception, with increasing diversity in the nature and type of transactions in which it participates, its activities have the potential to generate both direct and indirect impact benefits for NYS residents. NYGB differentiates and tracks both direct and indirect impact metrics, to more comprehensively quantify the estimated impact of each NYGB investment on the NYS clean energy and sustainable infrastructure market. This is consistent with the CEF Order, which specifically recognizes the importance of catalyzing markets and generating indirect benefits as part of CEF initiatives, including over longer time horizons.²⁶

The quantification of indirect impact benefits is intended to capture the market transformational effects of NYGB investment activity. Many other CEF initiatives also anticipate accruing indirect benefits related to longer-term effects from follow-on market activity. These indirect impacts are grounded in a theory of change developed for each initiative, and NYSERDA will use market evaluation approaches, consistent throughout the CEF, to verify

²⁶ See CEF Order (Cases 14-M-0094 et al.) pages 68 – 69: “The approved [CEF eligibility criteria] provide NYSERDA with the needed flexibility to choose initiatives that will create the greatest benefits for the least cost and to support innovative new technologies and approaches. [The PSC] recognize[s] that initiatives oriented toward market development, while they have the potential to create the greatest benefits for ratepayers in the long run, will have more indirect and less easily calculated clean energy benefits as compared to resource acquisition programs. [The PSC] require[s] NYSERDA to take a broad view of these indirect benefits when considering whether an initiative is eligible for CEF funding and to also take into account other benefits of the initiative, including its contribution to all of the CEF goals and its economic development benefits. Funding market-based projects with an indirect impact on clean energy is wholly consistent with the Commission’s historic approach to clean energy programs. For example, the Commission approved workforce development programs, designed to achieve both indirect clean energy benefits and economic development benefits, as part of both [the energy efficiency performance standard] and [the renewable portfolio standard]. Holistic consideration of these benefits will best support the SEP, the goals described in the New York State Energy Law, and the interests of ratepayers.”

the indirect impacts as they accrue over time. Estimated indirect benefits are reflected in NYGB progress reporting, in general and toward meeting NYGB CEF goals. The realization and evaluation of NYGB indirect benefits over time will also be reflected in periodic reporting as appropriate. Both direct and indirect metrics reflect reductions of GHGs in the State from NYGB activity.

For NYGB, direct and indirect impact metrics are further defined as follows:

- (a) *Direct Impact Metrics*: Direct impact metrics quantify the estimated impact of the counterparty's project development or business-building activity. The types of direct impact metrics that NYGB tracks are those outlined in the Metrics Plan (and publicly reported quarterly), in aggregate on a path to achieving the impact benefit objectives by the end of the CEF in December 2025. Benefits are tracked on an estimated and actual basis (with actuals reported annually for NYGB's Investment Portfolio in each calendar year). NYGB investments typically involve terms that limit or incentivize the use of NYGB investment proceeds to new or incremental project development in NYS.
- (b) *Indirect Impact Metrics*: Indirect Impact Metrics seek to measure the effect of NYGB investment on projects, pipelines, or other counterparty structures that wholly or in part catalyze other developments in the clean energy and sustainable infrastructure market beyond that in which NYGB directly invests (e.g., providing liquidity in the secondary markets and in relation to large-scale renewables with merchant exposure). While some NYGB investments might not fund new project development, material indirect benefits are nevertheless expected to accrue to the State over time as a result of this type of NYGB activity. NYGB tracks such estimated benefits (which can be in MWs, MWh, MMBtus, or metric tons of GHG reduced/avoided) on a lifetime basis. The realization of indirect impact benefits is expected over time. To confirm the nature and extent of indirect impact benefits that are realized by the State, periodic market assessments will occur as needed to confirm that new development activity has in fact occurred, validating NYGB's estimated indirect impact benefits.

5 Progress Against Plan Deliverables

In its Annual Business Plan ("**Plan**"), filed on June 19, 2019, NYGB identified deliverables (the "**Plan Deliverables**") that collectively mark its progress toward key initiatives in the period April 1, 2019 through March 31, 2020 (the "**Plan Year**").

NYGB's Quarterly Reports are required to address progress against the Plan Deliverables and provide a brief narrative (as appropriate) of status and an explanation of any material variances relative to expectations.

Table 3 summarizes NYGB's performance against the Plan Deliverables for the quarter ending December 31, 2019.

Table 3. Status of Plan Deliverables (2019 – 20)

Category	Deliverable	Status in Quarter Ending December 31, 2019
Strong Active Pipeline		
Active Pipeline	<ul style="list-style-type: none"> Maintain an Active Pipeline of at least \$450.0 million per quarter on average throughout the 2019 – 20 Plan Year. 	<input checked="" type="checkbox"/> Achieved for this Quarter: Average Active Pipeline of \$666.8 million through the first three quarters of the 2019 fiscal year.
Clean Energy for LMI²⁷	<ul style="list-style-type: none"> Publicly issue Credit Enhancement/Loss Reserve for CDG Tax Equity RFI²⁸/RFP. 	<input checked="" type="checkbox"/> Ongoing & On Track: Due to be issued by the end of the 2019 fiscal year.
	<ul style="list-style-type: none"> Convene LMI stakeholders to present NYGB's CDG financing approach on LMI-friendly terms, such as to not require FICO[®]²⁹ scores or long-term contracts. 	<input checked="" type="checkbox"/> Achieved for the Plan Year: On July 11, 2019, NYGB hosted the webinar "Financing Community Distributed Generation for Low-to-Moderate Income Communities." The webinar highlighted the ways NYGB continues to facilitate increased opportunities for LMI customers to participate in, and benefit directly from, NYS's growing distributed energy market.
	<ul style="list-style-type: none"> Convene LMI stakeholders to present NYGB approaches to financing projects in LMI communities, and to communicate current developments and progress made during the 2019 – 20 Plan Year. 	<input checked="" type="checkbox"/> Ongoing & On Track: Further convenings and communications to continue as approaches are develop.
Energy Storage	<ul style="list-style-type: none"> Participate in NYSERDA webinar to inform market participants of how NYGB financings can leverage NYSERDA planned bulk and retail storage incentives. 	<input checked="" type="checkbox"/> Achieved for the Plan Year: On May 2 and 3, 2019 NYGB presented on its financing approach to energy storage in NYSERDA's bulk & retail energy storage webinars.
	<ul style="list-style-type: none"> Publicly issue new standalone Energy Storage RFP following announcement of planned NYSERDA storage incentives. 	<input checked="" type="checkbox"/> Achieved for the Plan Year: On November 12, 2019, NYGB issued Request for Proposals 13: Financing for Energy Storage Projects.
	<ul style="list-style-type: none"> Convene energy storage market participants to present NYGB standalone Energy Storage RFP. 	<input checked="" type="checkbox"/> Achieved for the Plan Year: On November 19, 2019, NYGB hosted the webinar "Financing Energy Storage Projects." In the webinar, NYGB highlighted its financing approach for energy storage projects.
Energy Efficiency	<ul style="list-style-type: none"> Provide guidance to market participants on key items to improve the probability of securing project financing from NYGB (to be included in NYSERDA pay-for-performance RFP for small commercial applications). 	<input checked="" type="checkbox"/> Achieved for the Plan Year: NYGB provided feedback on the NYSERDA and Consolidated Edison pay-for-performance RFP. NYGB helped draft the Financial Capacity section of the RFP.
	<ul style="list-style-type: none"> Participate in NYSERDA residential stakeholder pay-for-performance convening and others with commercial market players around tenant 	<input checked="" type="checkbox"/> Achieved this Quarter: NYGB presented its approach to financing NYSERDA performance-based

²⁷ Low and Moderate Income.

²⁸ Request for Information.

²⁹ "FICO[®]" is an abbreviation for the Fair Isaac Corporation, the first company to offer a credit-risk model with a score.

Category	Deliverable	Status in Quarter Ending December 31, 2019
	improvement financing models.	incentives at the Pay for Performance & National Grid Stakeholder Meeting in Syracuse, NY.
Large-Scale Renewables	<ul style="list-style-type: none"> Contribute to NYSERDA Land-Based LSR³⁰ RFP and NYS port infrastructure RFI to communicate potential NYGB financing roles and structures to likely respondents and related parties. 	<input checked="" type="checkbox"/> Ongoing & On Track: NYGB contributed to NYSERDA's Land-Based LSR RFP.
	<ul style="list-style-type: none"> Participate in May 2019 webinar³¹ for NYSERDA's LSR RFP³² to provide information to potential respondents on NYGB financing options, so that these may be reflected in, and priced into, RFP responses. 	<input checked="" type="checkbox"/> Achieved for the Plan Year: On May 2, 2019, NYGB participated in the Renewable Energy Standard Program RFP19-1 Webinar. In the webinar, NYGB highlighted its financing approach for LSR projects.
	<ul style="list-style-type: none"> Participate in NYSERDA convening of LSR market participants to communicate NYGB financing opportunities to NYSERDA RFP respondents. 	<input checked="" type="checkbox"/> Achieved for the Plan Year: As noted above, on May 2, 2019, NYGB participated in the Renewable Energy Standard Program RFP19-1 Webinar. In the webinar, NYGB highlighted its financing approach to LSR projects. Additionally, on May 15, 2019 NYGB hosted a Financing Large-Scale Renewables webinar to further detail how NYGB can be helpful in providing financing to the LSR market.
Community Distributed Generation	<ul style="list-style-type: none"> Publicly issue Credit Enhancement/Loss Reserve for CDG Tax Equity RFI/RFP, as noted above under "Clean Energy for LMI." 	<input checked="" type="checkbox"/> Ongoing & On Track: Due to be issued by the end of the 2019 fiscal year.
	<ul style="list-style-type: none"> Convene LMI stakeholders to present NYGB's CDG financing approach that may not require FICO scores or long-term contracts, as noted above under "Clean Energy for LMI." 	<input checked="" type="checkbox"/> Achieved for the Plan Year: As noted above, on July 11, 2019, NYGB hosted the webinar "Financing Community Distributed Generation for Low-to-Moderate Income Communities." The webinar highlighted the ways in which NYGB continues to facilitate increased opportunities for LMI customers to participate in, and benefit directly from, NYS's growing distributed energy market.
Clean Transportation	<ul style="list-style-type: none"> Convene market participants and clean transportation innovators to identify specific market needs or gaps and advance NYGB financing product development and offerings. 	<input checked="" type="checkbox"/> Ongoing & On Track: On March 6, 2020, NYGB, NECEC, & NYSERDA will convene clean transportation market participants for the "Clean Transportation Forum" at Con Edison.
Bio Energy	<ul style="list-style-type: none"> Convene market participants to identify specific market needs and advance product development and potential offerings. 	<input type="checkbox"/> Not Started: The date for this convening is yet to be determined.

³⁰ Large Scale Renewables.

³¹ See:

www.nyseda.ny.gov/All%20Programs/Programs/Clean%20Energy%20Standard/Renewable%20Generators%20and%20Developers/RES%20Tier%20One%20Eligibility/Solicitations%20for%20Long%20term%20Contracts.

³² Issued April 23, 2019. See: <http://portal.nyseda.ny.gov/servlet/servlet.FileDownload?file=00Pt000000ED99VEAT>.

Category	Deliverable	Status in Quarter Ending December 31, 2019
Portfolio Driving Material Clean Energy Investments Across NYS		
Committed Funds	<ul style="list-style-type: none"> Commit \$962.6 million (cumulative) to NYGB investments by March 31, 2020, including at least \$225.0 million of incremental commitments in the 2019 – 20 Plan Year (at an average rate of \$56.25 million in closed transactions per quarter). 	<input checked="" type="checkbox"/> Achieved for this Quarter: NYGB Closed \$117.5 million in transactions in the quarter. NYGB averaged \$57.2 million in closed transactions per quarter in the fiscal year to date.
Mobilizing Capital		
<ul style="list-style-type: none"> Mobilization Ratio 	<ul style="list-style-type: none"> Continue progress toward a ratio of 8:1 across all NYGB investments, manifesting in \$8.0 billion of clean energy and sustainable infrastructure projects mobilized in the State by NYGB activity by the end of the CEF in 2025. 	<input checked="" type="checkbox"/> Ongoing & On Track: Current NYGB investments are expected to mobilize up to \$2.4 billion in estimated project costs.
	<ul style="list-style-type: none"> Collaborate with NYSERDA and other relevant stakeholders to continue to explore the viability of a public private partnership to effectuate NYGB’s third-party capital raise and national expansion, which will deliver the same or greater benefits to all New Yorkers using less ratepayer capital, as directed by Governor Cuomo in the 2019 State of the State/Executive Budget package. 	<input checked="" type="checkbox"/> Ongoing & On Track: NYGB/NYSERDA continue to work with relevant parties.
Maintaining Self-Sufficiency by Strengthening Operations		
<ul style="list-style-type: none"> Legal & Technical Services 	<ul style="list-style-type: none"> Issue new RFP for technical service providers to NYGB and select slate of approved providers by September 2019. 	<input checked="" type="checkbox"/> Achieved for the Plan Year: Issued Technical RFP in June 2019. NYGB selected service providers by the end of 2019.
	<ul style="list-style-type: none"> Issue new RFP for legal service providers to NYGB and select slate of approved providers by December 2019. 	<input checked="" type="checkbox"/> Achieved for the Plan Year: Issued Legal RFP in September 2019. NYGB selected with service providers at the end of 2019.

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.

Bridge Loan to Support the Deployment of Community Solar Projects

Eden Renewables, LLC

On November 8, 2019, NY Green Bank (“**NYGB**”) provided a 24-month senior secured \$2.5 million bridge loan facility (the “**Bridge Loan**”) to Eden Devco Borrower LLC (“**Borrower**”), which is owned by Eden Devco LP (“**Sponsor**”), a limited partnership that is managed by Eden Renewables LLC (“**Eden**”). Bridge Loan proceeds will finance project interconnection deposits to National Grid for community distributed generation (“**Community DG**”) solar projects. This transaction is expected to provide New York State (“**NYS**”) residents and businesses with a greater variety of energy choices and, ultimately, lower-cost clean energy opportunities.

Transaction Description

Eden is developing a portfolio of Community DG solar projects in NYS and requested that NYGB provide a \$2.5 million Bridge Loan to finance interconnection deposits to National Grid for such projects, due under the New York State Public Service Commission (the “**Commission**”) Standardized Interconnection Requirements and Application Process.¹

This transaction is expected to support up to 84.5 MW of solar assets in the State which is expected to: (i) provide commercial and residential project subscribers access to reliable, clean, low-cost energy; and (ii) reduce up to 373,019 metric tons of greenhouse gas (“GHG”) emissions annually in NYS. As there has been an increasingly strong demand for Community DG solar throughout NYS, capital providers are recognizing, and will continue to recognize, the value in providing financing to enable the deployment of these projects. NYGB expects the Bridge Loan product to serve a template for private capital to build on.

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 Commission on June 20, 2016.²

Form of NYGB Investment

NYGB Product	Product Sub-Type	Committed Capital
Asset & Investment	Bridge Loan	\$2.5 million

Location(s) of Underlying Project(s)

Capital Region. The first projects in the Bridge Loan will be located in Rensselaer County, NY.

¹ Under the revised NYS Standardized Interconnection Requirements, within 60 business days of receiving the Coordinated Electric System Interconnection Review (“**CESIR**”) results, interconnection applicants must pay the applicable utility 25.0% of the interconnection upgrade estimates.

² Case 13-M-0412.

Types of Client & Counterparty Organizations that are Transaction Participants

	Name	Participant Type
Client	Eden Renewables LLC	Energy Project Developer
Counterparties (current)	National Grid	Electric Utility

Summary of Financing Market Objectives & Barriers Addressed

Beneficiary	Market Barrier	Financing Solution
Solar Project Developers	Project sponsors are often expected to pay for interconnection upgrade expenses with equity funds as they finalize construction financing arrangements. This results in a relatively inefficient use of sponsor equity, which limits project deployment efforts and effectively restricts the amount of Community DG being deployed in NYS, slowing the rate of deployment.	This transaction encourages a more efficient use of sponsor equity and supports project development efforts in NYS by bridging the period in which project sponsors need to finalize project financing arrangements for projects for which the CESIR process has been completed. NYGB's role will create an easier pathway forward for developers and will enable greater deployment of community and other distributed generation assets throughout the State.
Capital Market Participants	As a relatively new form of clean energy project, Community DG lacks financing precedents and has limited performance history in NYS. As such, it can be more difficult for private sector capital providers to assess and price the underlying risk exposures associated with Community DG project investments.	Projects supported as a result of this transaction will generate project and customer performance data to draw new investors and financial institutions into the marketplace by demonstrating that competitive risk-return profiles can be achieved by Community DG-enabled business models.
Community DG Subscribers	Due to project siting, property ownership and consumer preference issues, on-site solar project installations may not be viable for a number of NYS homeowners, renters, and businesses. This limits the number of solar projects getting done to those with suitably sited homes or businesses.	This transaction supports the deployment of Community DG solar projects, which provide those who are not otherwise able to install solar energy generation systems on their property (e.g., homeowners whose rooftops cannot support solar systems, renters and those who cannot afford solar stand-alone systems), with voluntary access to clean, low-cost energy, regardless of where their home or business is located.

Technologies Involved

Technology	Measures
Renewable Energy	Solar photovoltaic 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 [(‘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 on⁴:

- 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 Bridge Loan, are as follows:

Energy/Environmental Impact	Lifetime Low Estimate	Lifetime High Estimate	Annualized Low Estimate	Annualized High Estimate
Estimated clean energy generated (MWh)	745,700	1,739,967	29,828	69,599
Estimated clean energy generation installed capacity (MW) ⁵	25.34	59.12	Not Applicable	
Estimated GHG emission reductions (metric tons) ⁶	373,019	870,378	14,921	24,815

Planned Market Characterization Baseline & Market Transformation Potential

The Metrics Plan requires that market evaluation occurs when a critical mass of NYGB financing and investment arrangements are put in place, approximately three to five years following initial NYGB capital deployments. Market evaluation activities commenced in 2018 on sectors that have been supported by NYGB since its inception, and the data set will be updated going forward to include indicators specific to this and other transactions. Baseline data will be used 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 expected dollar value) and location of projects financed by the Bridge Loan;
- Aggregate expected energy generation for projects financed by the Bridge Loan; and
- The number of projects that finalize construction financing arrangements.

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 Eden Devco LP projects increases;
- General understanding of renewable energy benefits by financial community increases;
- Increased awareness and use of Community DG subscriber performance data by financing entities;
- Increased awareness and use of project/technology performance data by financing entities;
- Demonstration of competitive risk-return profiles for Community DG solar investment;
- Decreased project costs;

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

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.

- Volume of secondary market financing of Community DG solar assets; and
- Number of new lending participants.

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 which it delivers.

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 (project subscribers, financial community) to track information including but not limited to: participation rates, project scale information, interest in solar financing (generally and with regard to Community DG specifically), and influence of NYGB's participation on financial markets. As noted, baseline data was collected on key indicators in the first phase evaluation during 2018 – 19. Later follow-up studies will assess progress against baseline levels for other market segments as those evolve. The specific timing of these efforts may be revised based on experience or other factors as NYGB's investment portfolio further develops and evolves.

Impact evaluation will assess which of the projects funded under the Bridge Loan raised construction financing and were completed, commissioned, and placed in service.

As with all NYGB investments, Eden 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 minimize double counting. Attempts will 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.

Continued Support of Distributed Generation in the Northeast

AES Distributed Energy

In November 2019, NY Green Bank (“NYGB”) provided \$50.0 million to participate in a syndicated term loan facility (the “Term Loan”) to a portfolio of distributed solar projects developed by AES Distributed Energy, Inc. (“AES DE” or the “Sponsor”). The financing was led by Nomura Holding Inc. (“Nomura”). The Term Loan proceeds are anticipated to finance 41 distributed generation solar projects in three Northeastern States. Of those projects, 14 will be in New York State (“NYS or the State”) including community distributed generation utility, and municipal solar projects. This transaction is expected to provide NYS residents and businesses a greater variety of energy choices and, ultimately, lower-cost clean energy opportunities.

Transaction Description

AES DE is an experienced project developer, owner, and operator of renewable energy projects, and is actively managing a project portfolio that consists of community solar, utility scale, and municipal solar projects – including 33.7 MW of community solar in NYS. NYGB’s \$50.0 million commitment in the Term Loan is expected to support a total of 41 distributed solar projects across New York, Massachusetts, and Rhode Island, including 14 distributed solar projects – totaling 46.1 MW – in NYS, which will deliver considerable benefits to New Yorkers. In addition, three of the projects in the AES DE portfolio currently under construction will support clean energy generation in New York State parks. All of these projects will be made in support of corporate goals set by AES DE’s parent company, AES Corp. (NYSE: AES) which aims to decrease its carbon intensity 70% by 2030.

This transaction provides substantial liquidity to an experienced project developer focused on increasing its renewable energy project holdings. Additionally, this transaction will help NYGB continue to demonstrate the viability of community distributed generation projects in NYS, draw new investors into the marketplace, and ultimately lower the cost of capital. Increased solar deployment will continue to drive activity in the State which will help NYS meet its 6 GW solar target by 2025. Consumers are expected to be the ultimate beneficiaries in the form of broader access to lower-cost clean energy generation, with corresponding resiliency, affordability, choice, and environmental benefits.

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, 2016.¹ This Transaction Profile contains specific information in connection with the AES DE transaction entered into on December 4, 2019, as required by the Metrics Plan.²

Form of NYGB Investment

NYGB Product	Product Sub-Type	Committed Capital
Asset Loan & Investment	Term Loan	\$50.0 million

¹ Case 13-M-0412.

² See Section 4.0, page 8 and Schedule 3.

Location(s) of Underlying Project(s)

Statewide.³ The AES projects will be located in regions across NYS.

Types of Client & Counterparty Organizations that are Transaction Participants

	Name	Participant Type
Sponsor	AES Distributed Energy, Inc.	Energy Project Developer
Co-Lead Arrangers	Nomura Holding Inc., Silicon Valley Bank, Key Bank	Commercial Banks

Summary of Financing Market Objectives & Barriers Addressed

Beneficiary	Market Barrier	Financing Solution
Solar Project Developers	Financing beyond construction can be an inefficient use of sponsor equity, which limits project deployment efforts and effectively restricts the amount of distributed generation being deployed in NYS, ultimately slowing the rate of deployment.	This transaction encourages more efficient use of sponsor equity and supports project development efforts in NYS by providing term financing to a project developer. NYGB's role demonstrates the availability of capital to developers and allows for the collection of additional subscriber data for developers and customer managers, enabling further understanding and validation of this asset class for all stakeholders – ultimately facilitating increased deployment of community and other distributed generation assets throughout the NYS.
Capital Markets Participants	As a relatively new form of clean energy project, distributed generation lacks financing precedents and has limited performance history in NYS. As such, it can be more difficult for private sector capital providers to assess and price the underlying risk exposures associated with distributed generation project investments.	Projects supported as a result of this transaction will generate project and customer performance data to draw new investors and financial institutions into the marketplace by demonstrating that competitive risk-return profiles can be achieved by distributed generation enabled business models.
Community Distributed Generation Subscribers	Due to project siting, property ownership, and consumer preference issues, on-site solar project installations may not be viable for many NYS homeowners, renters, and businesses. This limits the number of solar projects getting done to those with suitably sited homes or businesses.	This transaction supports the deployment of community distributed generation solar projects, which provide those who are not otherwise able to install solar energy generation systems on their property (e.g., homeowners whose rooftops cannot support solar systems, renters and those who cannot afford solar stand-alone systems), with voluntary access to clean, low-cost energy, regardless of where their home or business is located.

Technologies Involved

Technology	Measures
Renewable Energy	Solar photovoltaic systems

³ Defined as projects located in four or more regions of the State.

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 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).

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

Energy/Environmental Impact	Lifetime Low Estimate	Lifetime High Estimate	First-Year Low Estimate	First-Year High Estimate
Estimated clean energy generated (MWh)	1,069,872	1,337,339	42,795	53,494
Estimated clean energy generation installed capacity (MW)	36.90	46.12	N/A	
Estimated GHG emission reductions (metric tons)	535,178	668,973	21,407	26,759

Planned Market Characterization Baseline & Market Transformation Potential

The Metrics Plan requires that market evaluation occurs when a critical mass of NYGB financing and investment arrangements are put in place, approximately three to five years following initial NYGB capital deployments. Market evaluation activities commenced in 2018 on sectors that have been supported by NYGB since its inception, and the data set will be updated going forward to include indicators specific to this and other transactions. Baseline data will be used 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.

Output 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 expected dollar value) and location of projects financed by the Bridge Loan;
- Aggregate expected energy generation for projects financed by the Term Loan; and
- The number of projects that finalize construction financing arrangements.

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 distributed solar projects increases;
- General understanding of renewable energy benefits by financial community increases;
- Increased awareness and use of distributed subscriber performance data by financing entities;
- Increased awareness and use of project/technology performance data by financing entities;
- Demonstration of competitive risk-return profiles for distributed solar investment;
- Decreased project costs;
- Volume of secondary market financing of distributed solar assets increases; and
- Number of new lending participants.

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.

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

NYSERDA will evaluate the direct and indirect impacts that this transaction has 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 (project subscribers, financial community) to track information including but not limited to: participation rates, project scale information, interest in New Construction financing, and influence of NYGB's participation on financial markets. As noted, baseline data was collected on key indicators in the first phase evaluation during 2018 – 2019. Subsequent studies will assess progress against baseline levels for other market segments like New Construction. The specific timing of these efforts will be determined (and may be revised) on an ongoing basis as NYGB's investment portfolio continues to grow and evolve.

Impact evaluation will assess which of the projects funded under the Term Loan, once completed, commissioned, and placed in service.

As with all NYGB investments, AES 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 minimize double counting. Attempts will 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.

Accelerating Clean Energy Investment in New York State

Generate Capital, Inc.

In November, 2019, NY Green Bank (“**NYGB**”) provided a senior secured \$35.0 million term loan facility (the “**Facility**”) to Generate PPL SPV I (“**Borrower**”), which is owned by Generate Lending, LLC (“**Parent**”), a limited liability company that is owned by Generate Capital, Inc. (“**Sponsor**” or “**Generate**”). Loan proceeds will refinance a portion of a senior secured term loan (“**Underlying Loan**”) between the Parent and Plug Power, Inc. This transaction is expected to result in increased Sponsor investment in New York State (“**NYS**” or the “**State**”) clean energy projects that amount to at least \$35.0 million.

Transaction Description

Generate operates as a specialty finance company that builds, owns and operates sustainable infrastructure in the United States. NYGB entered into this \$35.0 million Facility to support Generate and leverage its illiquid position in a senior secured loan with Plug Power.

Generate Capital has a NYS portfolio and pipeline that includes rooftop solar, community solar, anaerobic digesters, and fuel cells. The Facility provides liquidity to Generate to invest in these NYS projects that have the potential to reduce greenhouse gas emissions. Generate plans to invest at least \$35.0 million in NYS clean energy projects and will report to NYGB its investment activity in the State. Given its pipeline, Generate expects to invest in 17.0 MW of clean energy generating projects which will deliver environmental and economic development benefits to New Yorkers across the State. By demonstrating to investors that Generate can monetize their interests in business models with limited liquidity, NYGB expects this transaction to attract more investors looking into clean energy investments in NYS. This transaction serves as a precedent and signal to this critical market need.

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 Commission on June 20, 2016.¹ This Transaction Profile contains specific information in connection with the Generate transaction entered into on December 3, 2019, as required by the Metrics Plan.²

Form of NYGB Investment

NYGB Product	Product Sub-Type	Committed Capital
Asset & Investment	Term Loan	\$35.0 million

Location(s) of Underlying Project(s)

Multiple Regions. The rooftop solar projects are located in New York City. Other investment opportunities in Generate’s pipeline are located in other Regions of the State.

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	Generate PPL SPV I	Borrower
Counterparties (current)	Generate Lending, LLC	Parent
	Generate Capital, Inc.	Sponsor

Summary of Financing Market Objectives & Barriers Addressed

Beneficiary	Market Barrier	Financing Solution
Clean Energy Project Developers	Clean energy developers face difficulties receiving cost-effective financing for their clean energy projects.	NYGB's support of private capital investors encourages more investing activity in the NYS clean energy market.
Capital Market Participants	Many capital market participants are not comfortable underwriting clean energy investments with structural features that result in illiquid positions.	NYGB's participation sets an important precedent for investors that NYGB will support investors seeking to expand and accelerate NYS investment opportunities.
New Yorkers	There continues to be a shortage of precedent clean energy project investments to attract private capital.	By catalyzing investment in clean energy in NYS, NYGB is providing New Yorkers with greater choices and access to clean energy.

Technologies Involved

Technology	Measures
Renewable Energy	Solar photovoltaic systems
Bioenergy	Anaerobic digesters
Other	Energy Storage Fuel Cells

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 [(‘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 on⁴:

- 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 gross lifetime and first-year energy and environmental impacts of the Term Loan, are as follows:

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.

Energy/Environmental Impact	Lifetime Low Estimate	Lifetime High Estimate	Annualized Low Estimate	Annualized High Estimate
Estimated clean energy generated (MWh)	434,934.00	492,925.20	17,391.36	19,717.01
Estimated clean energy generation installed capacity (MW) ⁵	15.00	17.00	Not Applicable	
Estimated GHG emission reductions (metric tons) ⁶	217,565.62	246,574.37	8,702.62	9,862.97

Planned Market Characterization Baseline & Market Transformation Potential

The Metrics Plan requires that market evaluation occurs when a critical mass of NYGB financing and investment arrangements are put in place, approximately three to five years following initial NYGB capital deployments. Market evaluation activities commenced in 2018 on sectors that have been supported by NYGB since its inception, and the data set will be updated going forward to include indicators specific to this and other transactions. Baseline data will be used 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.

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 which it delivers.

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 (project developers, financial community) to track information including but not limited to NYS investment. As noted, baseline data was collected on key indicators in the first phase evaluation during 2018 – 19. Later follow-up studies will assess progress against baseline levels for other market segments as those evolve. The specific timing of these efforts may be revised based on experience or other factors as NYGB’s investment portfolio further develops and evolves.

Impact evaluation will assess the performance of the projects invested in by Generate Capital located in NYS. As with all NYGB investments, Generate investments that received 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 minimize double counting. Attempts will 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.

⁵ Installed clean energy generation capacity at full deployment of funds is the same for first-year and lifetime duration.

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.

Supporting the Deployment of Solar Projects in New York State

BQ Energy Development, LLC

NY Green Bank (“**NYGB**”) has committed \$10.0 million to finance the deployment of solar photovoltaic projects in the development pipeline to BQ Energy Development, LLC (“**BQ**”). This is an expansion of NYGB’s investment in solar development capital as part of its ongoing efforts to participate in sustainable infrastructure investments in support of Clean Energy Fund objectives. The \$10.0 million financing facility is expected to support the deployment of up to 29 megawatts (“**MW**”) of photovoltaic (“**PV**”) solar in NYS, providing residents and businesses with a greater variety of energy choices and, ultimately, lower-cost clean energy options.

Transaction Description

BQ is a Wappingers Falls, New York-based solar energy project developer specializing in landfill and brownfield site redevelopment. NYGB’s \$10.0 million multi-draw term loan investment (the “**Investment**”) finances the costs of BQ’s project development efforts. The Investment establishes a structure that can be replicated for other qualified developers to create incremental renewable energy generation and greenhouse gas (“**GHG**”) mitigation benefits. It contributes to accelerated development of solar facilities in NY on brownfield/landfills, with offtake arrangements targeted to the municipalities, universities, schools and hospitals (“**MUSH**”) and community distributed generation (“**CDG**”) markets.

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, 2016.¹ This Transaction Profile contains specific information in connection with the BQ Energy Development, LLC transaction entered into on December 16, 2019, as required by the Metrics Plan.²

Form of NYGB Investment

NYGB Product	Product Sub-Type	Committed Capital
Asset Investment	Term Loan	\$10.0 million

Location(s) of Underlying Project(s)

Statewide.³ BQ’s solar projects are in regions across NYS.

Types of Client & Counterparty Organizations that are Transaction Participants

	Name	Participant Type
Client	BQ Energy Development LLC	Energy Project Developer

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
Solar Project Developers	Project developers are often expected to pay for all development expenses with equity funds as they finalize construction financing arrangements. This results in a relatively inefficient use of sponsor equity, limiting project deployment efforts and effectively restricting the number of solar projects being deployed in NYS.	This transaction encourages a more efficient use of sponsor equity and greater potential project development in NYS by providing leverage against certain development expenses that would increase the values of those projects. NYGB's participation creates an easier pathway forward for developers and enables greater deployment of distributed solar assets throughout the State.
Capital Market Participants	As a relatively new form of clean energy distribution, senior secured debt product lacks a large volume of precedents in the development capital market. As such, it is difficult for private sector capital providers to assess and price the underlying risk exposures associated with this kind of investments.	This transaction will generate project development and developer's performance data, which will help draw new investors and financial institutions into the marketplace by demonstrating that competitive risk-return profiles can be achieved by this investment product.
NYS Ratepayers	Due to project siting, property ownership, and consumer preference issues, on-site solar project installations may not be viable for a number NYS homeowners, renters, and businesses. This currently limits the number of solar projects with the potential of getting done to those with perfectly sited homes or businesses.	This transaction supports the deployment of solar projects, which provide those who are not otherwise able to install solar energy generation systems on their property (e.g., homeowners whose rooftops cannot support solar systems, renters and those who cannot afford solar systems, etc.), with voluntary access to clean, low-cost energy, regardless of their home or business location.

Technologies Involved

Technology	Measures
Renewable Energy	Solar photovoltaic 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 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 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 lifetime and first-year energy and environmental impacts of the Investment, facilitated by NYGB's financial participation in this transaction, 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)	414,637	849,571	16,585	33,983
Estimated clean energy generation installed capacity (MW) ⁶	14.3	29.3	Not Applicable	
Estimated GHG emission reductions (metric tons)	207,413	424,978	8,297	16,999

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. Market evaluation activities commenced in 2018 on sectors that NYGB has supported since inception, consistent with the requirement for such assessments approximately three to five years following initial NYGB capital deployments.⁷ Baseline data is being collected for the solar sector in 2018 and will be updated in going forward to include indicators specific to this transaction. Baseline data on indicators will be used 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.

Output 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 (generation capacity and dollar value) of acquired projects;
- Average and aggregate dollar value of acquired projects;
- Number and type of acquired projects in development and completed; and
- Number and location of acquired projects (by zip code).

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

- Increased awareness in benefits among financing entities as a result of favorable technology performance data;
- Favorable financial performance data;
- Favorable technology performance data;
- Market volume of BQ projects increases;
- Investments become increasingly attractive to investors, based on positive financial performance data and acceptable risk/default rates;
- Increased financial market volume for clean energy projects;
- Decreased project technology costs;
- Scale of clean energy investment increases, due to increased end-use market demand;
- Reduced time to execute clean energy financings; and
- Increased number of financial participants providing similar capital structures.

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 outcome indicators identified above. Methods will include analysis of program data along with interviews and surveys of market participants (project subscribers, financial community) to track information including but not limited to: participation rates, project scale information, interest in solar financing (generally and with regard to Community DG specifically), and influence of NYGB's participation on financial markets. As noted, baseline data is being collected on most key indicators starting in 2018 and later follow-up studies will assess progress against

⁶ Installed clean energy generation capacity at full deployment of funds is the same for first-year and lifetime duration.

⁷ See Metrics Plan, Section 3.3 at page 7.

baseline levels. The specific timing of these efforts may be revised based on experience or other factors as the investment evolves.

Impact evaluation will assess the performance of the projects funded under the Bridge Loan to verify that arrays are generating clean energy benefits within the estimated ranges set out in this Transaction Profile.

As with all NYGB investments, BQ 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 minimize double counting. Attempts will 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.

Continued Support of Distributed Generation in New York State

True Green Capital Management, LLC

In December 2019, NY Green Bank (“NYGB”) committed up to \$20.0 million to participate in a syndicated term loan facility (the “Term Loan”) to a portfolio of community distributed generation (“CDG”) solar projects owned and operated by True Green Capital Fund III, L.P., an investment fund managed by True Green Capital Management LLC (“TGC” or the “Sponsor”). The financing was led by CIT Bank, N.A. (“CIT”). Term Loan proceeds are anticipated to support the development of 10 community solar projects in New York State (“NYS or the State”). This transaction is expected to provide NYS residents and businesses a greater variety of energy choices and, ultimately, lower-cost clean energy opportunities.

Transaction Description

NYGB is participating with CIT in the first NYS-only CDG portfolio financing arranged by a commercial bank. With its commitment to the Term Loan, NYGB expects to support up to 10 community distributed solar projects in NYS totaling up to 70.2 MW.

TGC is a specialized energy infrastructure asset management firm based in Westport, CT with over 550.0 MW of solar power plants operating or under construction across the U.S. This transaction provides liquidity to a Sponsor active in the NYS community solar market. Additionally, this transaction will help NYGB continue to demonstrate the viability of distributed generation in the State, draw new investors and financial institutions into the marketplace, and lower the cost of capital related to community distributed generation. Increased solar deployment will continue to drive activity in the State, which will help NYS meet its 6.0 GW solar target by 2025. Consumers are expected to be the ultimate beneficiaries in the form of broader access to lower-cost clean energy generation, with corresponding resiliency, affordability, choice, and environmental benefits.

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 Commission on June 20, 2016.¹ This Transaction Profile contains specific information in connection with the TGC transaction entered into on December 27, 2019, as required by the Metrics Plan.

Form of NYGB Investment

NYGB Product	Product Sub-Type	Committed Capital
Asset Loan & Investment	Term Loan	\$20.0 million

Location(s) of Underlying Project(s)

Statewide.² The TGC projects are located NYSEG zones C and D.

¹ Case 13-M-0412.

² Defined as projects located in four or more regions of the State.

Types of Client & Counterparty Organizations that are Transaction Participants

	Name	Participant Type
Sponsor	True Green Capital Fund III, L.P.	Energy Project Owner and Operator
Lead Arranger	CIT Bank, N.A.	Commercial Bank

Summary of Financing Market Objectives & Barriers Addressed

Beneficiary	Market Barrier	Financing Solution
Solar Project Developers	Financing beyond construction is sometimes an inefficient use of sponsor equity, which limits project deployment efforts and effectively restricts the amount of distributed generation being deployed in NYS, slowing the rate of deployment.	This transaction encourages a more efficient use of sponsor equity and supports project development efforts in NYS by providing term financing to a project developer. NYGB's role helps to create an easier pathway forward for developers and enable greater deployment of community and other distributed generation assets throughout the State.
Capital Markets Participants	As a relatively new form of clean energy project, community distributed generation lacks financing precedents and has limited performance history in NYS. As such, it can be more difficult for private sector capital providers to assess and price the underlying risk exposures associated with distributed generation project investments.	Projects supported as a result of this transaction will generate project and customer performance data to draw new investors and financial institutions into the marketplace by demonstrating that competitive risk-return profiles can be achieved by distributed generation enabled business models.
Community DG Subscribers	Due to project siting, property ownership and consumer preference issues, on-site solar project installations may not be viable for many NYS homeowners, renters, and businesses. This limits the number of solar projects getting done to those with suitably sited homes or businesses.	This transaction supports the deployment of community distributed generation solar projects, which provide those who are not otherwise able to install solar energy generation systems on their property (e.g., homeowners whose rooftops cannot support solar systems, renters and those who cannot afford solar stand-alone systems), with increased access to clean, low-cost energy, regardless of where their home or business is located.

Technologies Involved

Technology	Measures
Renewable Energy	Solar photovoltaic 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 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 on⁴:

- 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 gross lifetime and first-year energy and environmental impacts of the Term Loan are as follows:

Energy/Environmental Impact	Lifetime Low Estimate	Lifetime High Estimate	First-Year Low Estimate	First-Year High Estimate
Estimated clean energy generated (MWh)	1,933,138.10	2,034,882.21	77,325.52	81,395.29
Estimated clean energy generation installed capacity (MW)	70.18	70.18	N/A	
Estimated GHG emission reductions (metric tons)	967,007.40	1,017,902.53	38,680.30	40,716.10

Planned Market Characterization Baseline & Market Transformation Potential

The Metrics Plan requires that market evaluation occurs when a critical mass of NYGB financing and investment arrangements are put in place, approximately three to five years following initial NYGB capital deployments. Market evaluation activities commenced in 2018 on sectors that have been supported by NYGB since its inception, and the data set will be updated going forward to include indicators specific to this and other transactions. Baseline data will be used 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.

Output 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 expected dollar value) and location of projects financed by the Term Loan;
- Aggregate expected energy generation for projects financed by the Term Loan; and
- The number of projects that finalize construction financing arrangements.

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 distributed solar projects increases;
- General understanding of renewable energy benefits by financial community increases;
- Increased awareness and use of distributed subscriber performance data by financing entities;
- Increased awareness and use of project/technology performance data by financing entities;
- Demonstration of competitive risk-return profiles for distributed solar investment;
- Decreased project costs;
- Volume of secondary market financing of distributed solar assets increases; and
- Number of new lending participants.

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

NYSERDA will evaluate the direct and indirect impacts that this transaction has 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 (project subscribers, financial community) to

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.

track information including but not limited to: participation rates, project scale information, interest in new construction financing, and influence of NYGB's participation on financial markets. As noted, baseline data was collected on key indicators in the first phase evaluation during 2018 – 2019. Subsequent studies will assess progress against baseline levels for other market segments like New Construction. The specific timing of these efforts will be determined (and may be revised) on an ongoing basis as NYGB's investment portfolio continues to grow and evolve.

Impact evaluation will assess which of the projects funded under the Term Loan, once completed, commissioned, and placed in service.

As with all NYGB investments, TGC 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 minimize double counting. Attempts will 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.