NY Green Bank

Metrics, Reporting & Evaluation

Quarterly Report No. 23

(Through March 31, 2020)

Case 13-M-0412

May 15, 2020

Continued Support of Clean Energy Markets through Covid-19

Amidst the ongoing uncertainty of the COVID-19 Crisis, NY Green Bank remained committed to delivering on its mandate and achieving its clean energy investment goals to accelerate the deployment of clean energy projects across New York State.

In response to Governor Cuomo's New York State on PAUSE Executive Order on March 16, 2020 – two weeks before the end of NYGB's 2019 – 20 Plan Year, NY Green Bank instituted a remote work plan and maintained its normal business operations with its full team of investment, strategy, finance, operations, legal, risk and compliance professionals. Specifically, during the final month of the Fiscal Year, the NYGB team:

- Continued to deliver on its clean energy mandate, closing $40.7 million in transactions when COVID-19 was accelerating and NY State was the hardest hit state in the nation, demonstrating continued support of its counterparties;
- Received and scored three proposals, sending a strong signal to market participants that NYGB remained open for business at a time when capital markets were experiencing an unprecedented disruption.

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1 Performance at a Glance – As of March 31, 2020

Stimulating New Clean Energy Proposals in the State	NY Green Bank ("**NYGB**") has received over **$4.1 billion** in investment proposals since inception.
Strong Active Pipeline	The Active Pipeline of potential investments proceeding to close was **$757.4 million**.
Driving Material Clean Energy Investments Across NYS	NYGB's investments support clean energy projects with a total project cost of **between $2.1 and $2.6 billion** in aggregate,[1] based on Overall Investments to Date of **$959.9 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 **$2.6 billion**.
Revenue Growth - Maintaining Self-Sufficiency	Continued revenue growth – **$86.8 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 11.4 and 19.6 million metric tons**,[2] equivalent to removing **between 155,548 and 192,389 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 regularly 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 4.2.

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 etc.) 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.[7,8]

3 Business Update

3.1 Overview

NYGB closed **four new investments** during the quarter ended March 31, 2020, committing **$50.7 million** across those investments. NYGB's current portfolio was more than $580 million at quarter end, the highest end-of-quarter total since the inception of the fund. At quarter end, NYGB was managing an Active Pipeline of **$757.4 million**. NYGB continued its strong public outreach and business development efforts; participating in eight stakeholder events during the quarter.

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 Active 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 March 31, 2020:

(a) NYGB has received, and its Scoring Committee has evaluated, over **$4.1 billion** of proposals;

(b) NYGB's Scoring Committee has evaluated and passed **$3.9 billion** of proposals – representing potential investments that meet NYGB's mandate and proposal evaluation criteria;

(c) NYGB's Greenlight Committee has recommended **$1.7 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 **$959.9 million** of transactions – comprising NYGB's Overall Investments to Date – mobilizing public and private investments to support in the range of **$2.1 to $2.6 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.

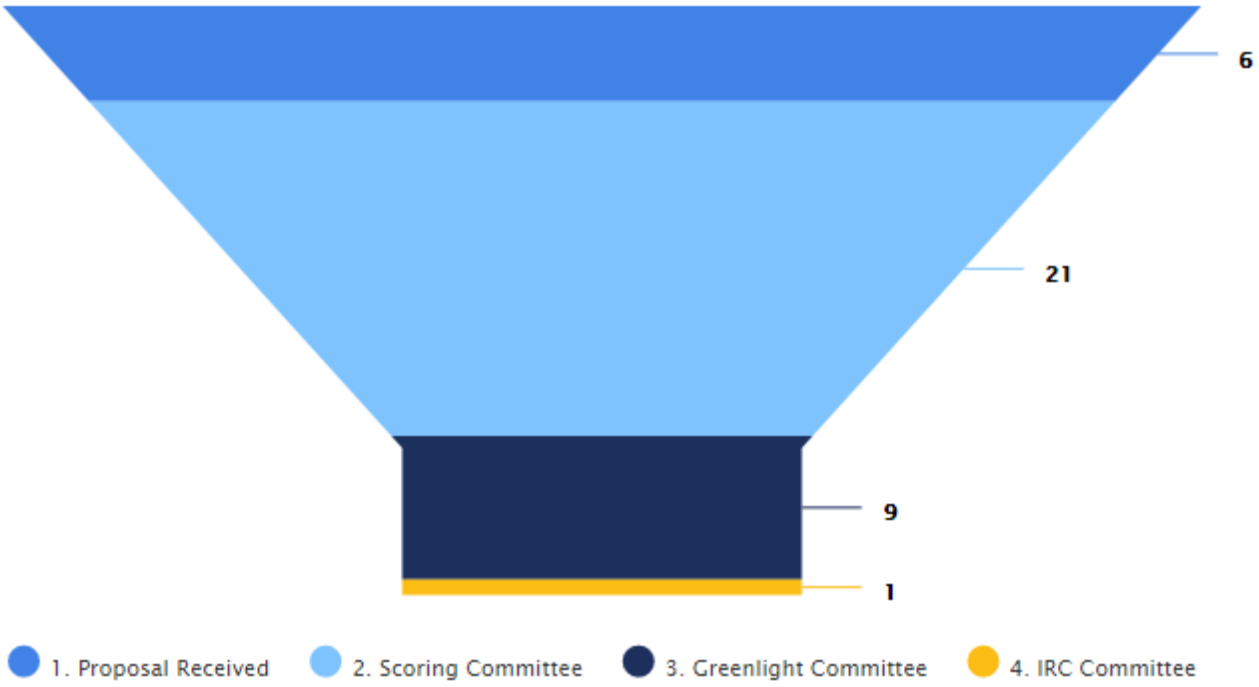
[7] The CLCPA codified and expanded New York's Green New Deal and other nation-leading clean energy and climate targets for the State, including: (a) quadrupling New York's offshore wind target to 9,000 MW by 2035 (up from 2,400 MW by 2030); (b) doubling distributed solar deployment to 6,000 MW by 2025 (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.

[8] Additionally, the CLCPA required a Climate Action Council ("CAC") be formed and Policy Roadmap developed to ensure that 35% of clean energy program resources benefit disadvantaged communities and individuals working in conventional energy industries are provided with training and opportunities in the growing clean energy economy.

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").[9] Through March 31, 2020, NYGB has received proposals requesting over $4.1 billion of NYGB capital. NYGB's Active Pipeline at March 31, 2020 was $757.4 million as shown in Figure 1. Figure 2 shows a comparison between the Active Pipeline and Investment Portfolio as of March 31, 2019 and March 31, 2020. Figure 3, Figure ***4*** and Figure ***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 ($757.4 Million)



[9] 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

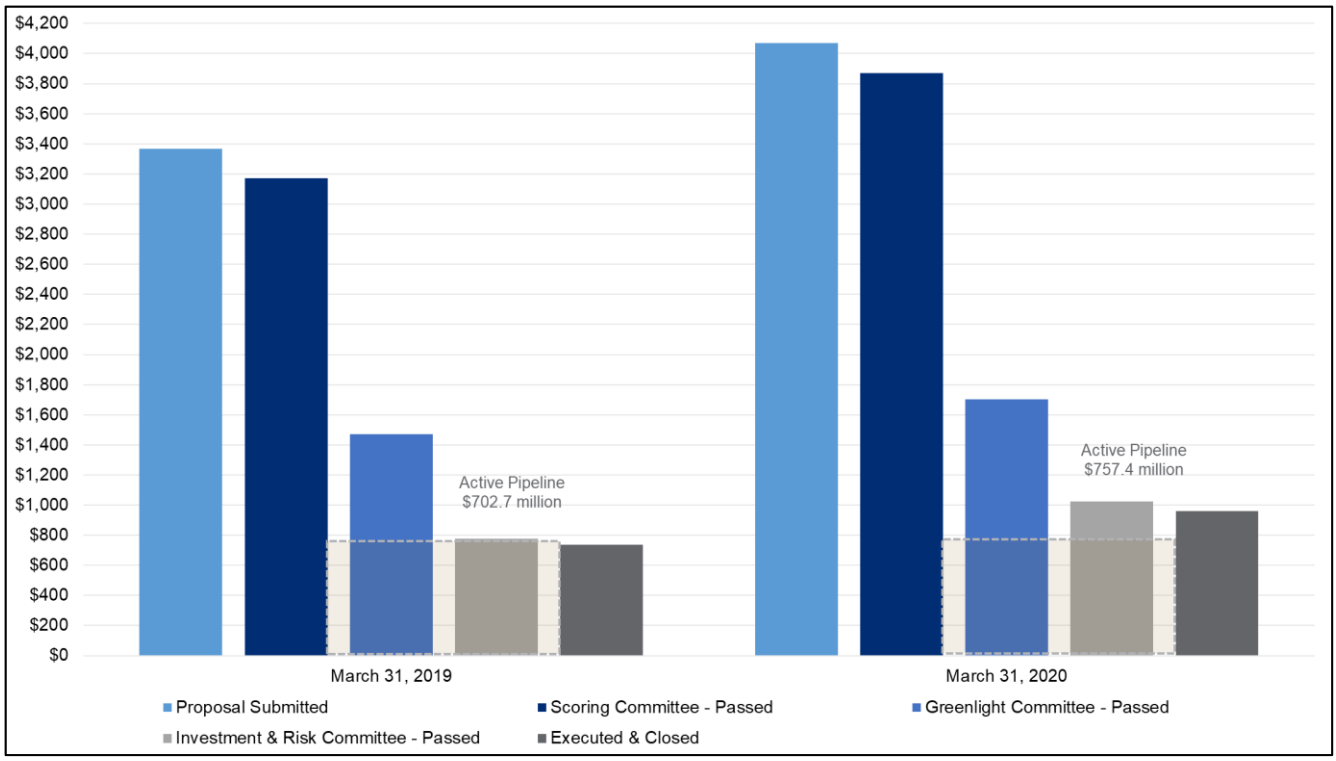


Figure 3. Active Pipeline by Technology

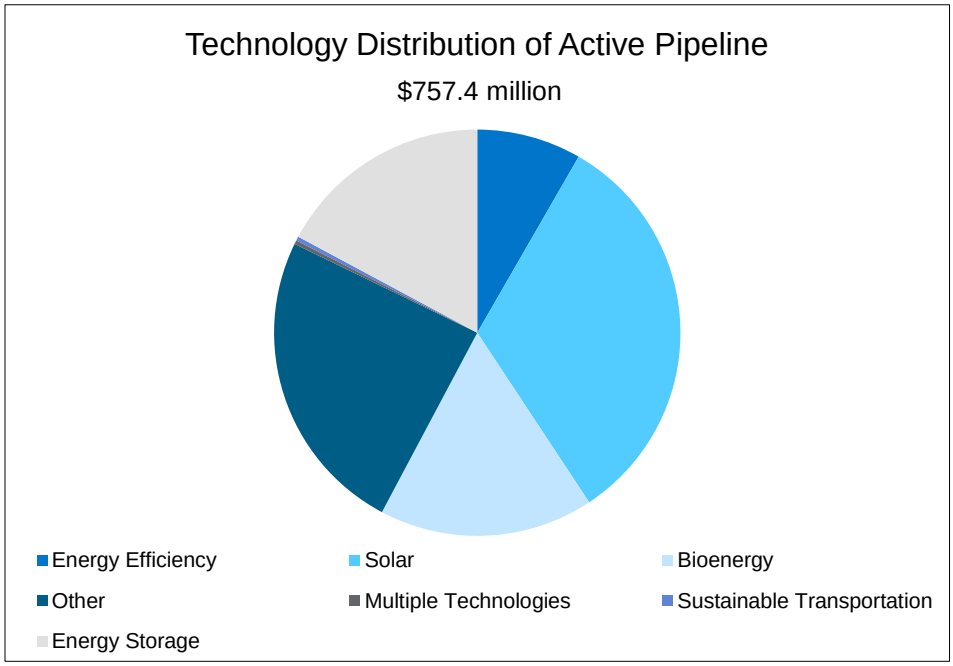


Figure 4. Active Pipeline by End-Use Customer Segment

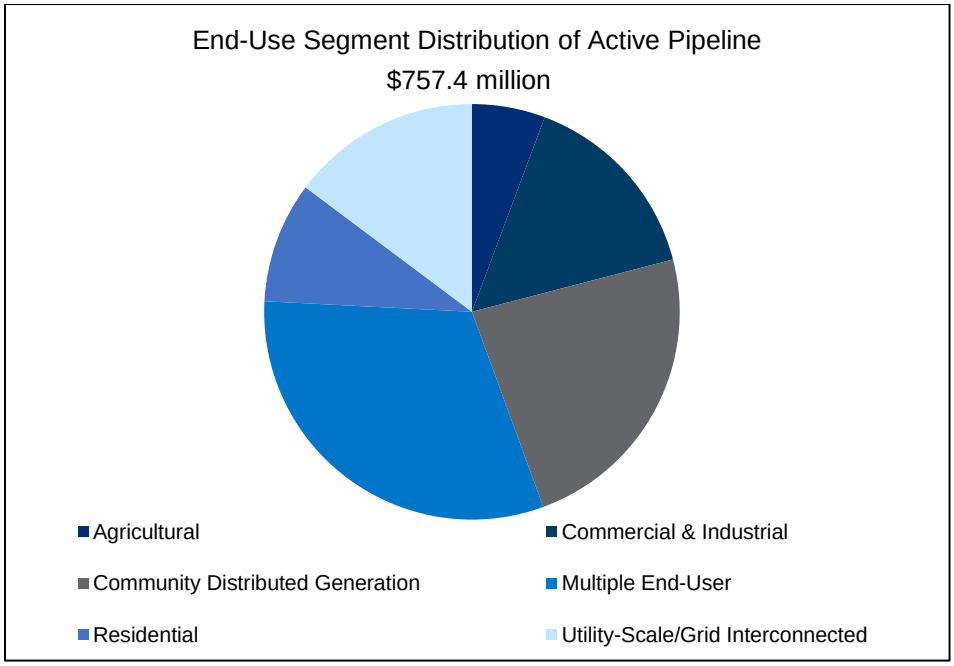
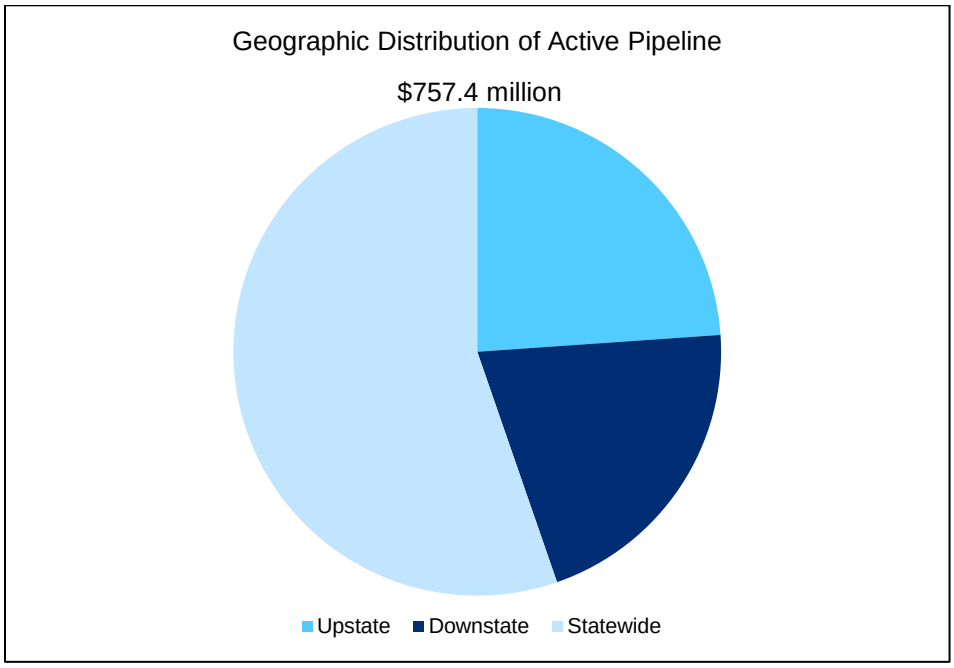


Figure 5. Active Pipeline by Geographic Distribution



3.3 Investment Portfolio

NYGB committed $50.7 million in the quarter ended March 31, 2020 which brought total commitments during the 2019 - 20 Fiscal Year to $222.3 million, just shy of the $225.0 million target set in the Business Plan. During the final fiscal quarter of 2019 – 20 NYGB provided additional financing to three existing counterparties. Existing borrowers Sunrun and Spruce Finance expanded their support of the residential solar market in NYS. Community Solar developer Eden requested an amendment and upsize to an existing interconnection bridge loan. NYGB also provided financing to a specialty financing entity, Inclusive Prosperity Capital ("**IPC**"), in a first-time transaction with this counterparty.

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

In March 2020, NYGB executed a material amendment to Eden's existing bridge loan. This amendment increased the loan by $1.8 million and allowed Eden to finance a portion of the balance of the estimated interconnection upgrade payments.

Existing Agreement

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 PSC Standardized Interconnection Requirements and Application Process.[10]

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.

Inclusive Prosperity Capital – Accelerating LMI Clean Energy Investment in New York State

- Reduces GHG emissions by up to 520,254 metric tons from the underlying projects
- Generates at least 415,425 MWh of renewable energy from the underlying projects
- Increases renewable energy installed generation capacity by at least 14.11 MW

IPC is a mission-driven specialty finance organization that seeks to increase clean energy investment in underserved markets, including a focus on LMI communities. NYGB entered into a $25.0 million facility with IPC to support IPC's programmatic origination and execution in NYS. By providing expanded financing options to underserved market segments, NYGB seeks to accelerate access to affordable, clean energy and to help advance NYS's broader climate goals. LMI communities are expected to be the primary beneficiaries of this transaction in the form of broader access to clean energy and energy efficiency projects, with corresponding resiliency, affordability, improved health outcomes, and environmental benefits.

[10] 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.

This transaction develops a scalable, replicable financing structure that capital providers can use to (i) underwrite portfolios of sustainable infrastructure projects with various underlying counterparties and (ii) develop a track record for impact-oriented institutional investment in clean energy. Given IPC's mission, this transaction enables increased capital deployment for clean energy in LMI communities, underserved markets, and a wide range of customer types (e.g., commercial, industrial, municipal, non-profit, institutional, and single and multifamily residential properties). By providing liquidity to these underserved market segments, NYGB will expand access to affordable, clean energy, advancing the environmental justice initiatives outlined in the CLCPA.

Sunrun, Inc. - Increasing Opportunities for NY Residents to Go Solar, Expanding Market Liquidity

- Reduces GHG emissions by up to 1,676,996 metric tons from the underlying projects
- Generates at least 2,710,392 MWh of renewable energy from the underlying projects
- Increases renewable energy installed generation capacity by at least 97.0 MW

On February 5, 2020, NYGB closed a $10.0 million commitment to participate in a transaction facilitating the purchase of solar materials (panels and inverters). This transaction was part of an $84.0 million financing arrangement by Key Bank and ING (the "**Safe Harbor Facility**" or "**SHF**"). This facility supports Sunrun's continued growth in NYS and nationally and its continued ability to deliver attractive economics to residential homeowners.

Overall Context (Summary of NYGB and Sunrun relationship)

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

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

Spruce Finance Inc. - Supporting Residential Solar in New York State

- Reduces GHG emissions by up to 357,517 metric tons from the underlying projects[11]
- Estimated to indirectly spur the generation of at least 266,845 MWh of renewable energy from the underlying projects
- Equivalent to the deployment of up to 9.1 MW of future residential solar resources in the State

[11] Since this investment does not include the construction of new clean energy resources but does involve the prolonged operation of assets, impact benefits attributable to this transaction are classified as direct and indirect. Indirect benefits are further discussed in Section 4.2

In March 2020, NYGB upsized its existing participation in the Spruce credit facility to $40 MM in support of the acquisition of two residential solar portfolios totaling approximately 59 MW and 9,500 systems. The portfolios contain a diversified mix of seasoned assets previously financed in part by tax equity investors.

Existing Commitment

Spruce owns a portfolio of approximately 23,500 residential PV systems that it operates and manages, located in 11 states included New York and California. NYGB has committed $27.1 million alongside capital from five commercial banks to support the medium-term financing of these residential PV assets.

Since being acquired in 2017 by HPS Investment Partners, Spruce has crystalized its focus on its key business lines, sold non-core assets and cut administrative costs. Through the leadership of a new executive team, these initiatives resulted in Spruce achieving positive operating cash flow commencing in the fourth quarter of 2018. Market recognition of this transformation should continue to put downward pressure on credit financing costs. This transaction demonstrates to the market that a high-quality portfolio of residential solar assets can successfully go through a turnaround under a well-executed reorganization and recapitalization plan.

3.4 Strategic, Operational & Risk Matters

In the quarter ended March 31, 2020, 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 eight events during the quarter, including: presenting at the *U.S. DOE Energy Storage Financing Summit* on NYGB's approach to financing energy storage projects; participating on a panel at the *33rd Annual Power and Gas M&A Symposium*; and highlighting NYGB's experience in financing community solar projects at the *SEIA Finance & Tax Seminar*.

In addition, on March 6, NYGB hosted the Clean Transportation Forum with NECEC and NYSERDA at Con Edison in NYC. The Forum brought together over 130 representatives from the clean transportation industry along with finance experts to discuss where the clean transportation market is today, the policy and innovation shaping its future, and the capital investments available and needed to catalyze project deployment. During this interactive forum, audience members heard from top energy and finance leaders in the sector on timely topics such as the Transportation and Climate Initiative (TCI), public-private partnerships, capital solutions addressing financing gaps, new NYSERDA incentive programs, and much more. Speakers included representatives from IKEA, EVgo, Con Edison, NYSERDA, ChargePoint, NECEC, and NYGB.

Also, on March 27, NYGB hosted the webinar *Financing Biogas Projects in NYS* with over 200 industry participants registered. The audience heard about the latest market trends in the biogas industry from Matt Tomich, President of Energy Vision, and NYGB's approach to financing biogas projects from Andrew Kessler, Managing Director at NYGB.

(b) Release of Request for Information: Credit Enhancement Product for Tax Equity Providers in LMI-Inclusive CDG Projects: In March 2020, NYGB announced the release of Request for Information: Credit Enhancement Product for Tax Equity Providers in LMI-Inclusive CDG Projects ("RFI 7"). Through this solicitation, NYGB sought information to identify specific ways in which NYGB can be helpful in increasing the availability of tax equity financing for CDG projects that offer LMI-inclusive subscription terms (short term contracts, indexed contracts, non-FICO approval customer credit approval approaches, etc.) in NYS by addressing existing market barriers and financing gaps. NYGB will be participating in conversations with respondents to discuss their feedback.

(c) Release of Request for Proposal: Investment Valuation & Financial Advisory Consulting Services: In March 2020, NYGB released Request for Proposal: Investment Valuation & Financial Advisory Consulting Services ("RFP 14"). Through this solicitation, NYGB requested proposals from firms interested in providing

investment valuation and financial advisory services to NYGB in connection with its investments in clean energy projects and businesses and in sustainable infrastructure. Responses were due to NYGB on April 21 and are to be reviewed by NYGB's RFP 14 Scoring Committee.

(d) Public Reporting & Metrics:

i. On February 14, 2020, NYGB filed its Quarterly Report for the period ended December 31, 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 June of 2020, including discussion of activities from NYGB's fiscal quarter ended March 31, 2020.

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 assess 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 January 1, 2020 through March 31, 2020.

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	$4.0 million
Operational Matters		
▪ **Cumulative Revenues ($)**[12]	$79.4 million	$86.8 million
▪ **Cumulative Operating Expenses ($)**[13][14]	$44.0 million	$46.7 million
▪ **Direct Operating Expenses ($)**	$27.0 million	$28.8 million
▪ **Allocated Expenses ($)**	$17.0 million	$18.0 million
▪ **Credit Facility (if in place)**		
▪ **Credit Facility Amount ($)**	Not Applicable	Not Applicable
▪ **Credit Facility Drawn Amount ($)**	Not Applicable	Not Applicable
▪ **Credit Facility Fees & Interest (Cumulative) ($)**	Not Applicable	Not Applicable

[12] 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.
[13] Cumulative Operating Expenses currently include $508,820 in evaluation expenses.
[14] Due to rounding, Cumulative Operating Expenses does not equal the sum of Direct Operating Expenses and Allocated Expenses

Quarterly Metric	Prior Quarter	Current Quarter
Investment Portfolio		
▪ **Committed Funds ($)**	$133.8 million	$143.4 million
▪ **Deployed Funds ($)**[15]	$391.9 million	$441.6 million
▪ **Current Portfolio ($)**[16]	$525.8 million	$585.0 million
▪ **Overall Investments to Date ($)**	$909.2 million	$959.9 million
▪ **Total Project Costs (Cumulative) ($)**[17]	In the range of $2.0 to $2.4 billion	In the range of $2.1 to $2.6 billion
▪ **Mobilization Ratio**	Tracking at least 2.6:1 on average across portfolio	Tracking at least 2.5:1 on average across portfolio[18]
▪ **Portfolio Concentrations (%)**[19]	75.3% Renewable Energy	74.0% Renewable Energy
	7.0% Energy Efficiency	7.5% Energy Efficiency
	17.7% Other	18.5% Other[20]
▪ **Number & Type of NYGB Investments**	41 – Renewable Energy	44 – Renewable Energy
	9 – Energy Efficiency	9 – Energy Efficiency
	7 – Other	8 – Other

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

[16] The dollar value of the Current Portfolio is expected to fluctuate from quarter to quarter, including to reflect any 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.

[17] Further to the definition of "Total Project Costs (Cumulative)" in the Metrics Plan (see page 15), Total Project Costs (Cumulative) may include fair market value ("**FMV**") data for a subset of NYGB's investments. FMV is an estimated market valuation of fully installed energy projects provided by NYGB's counterparties and is often required for federal income tax purposes by institutional investors and for certain grant program purposes unconnected with NYGB. As projects progress and the cost of installed equipment and labor are known and reported to NYGB by its counterparties, NYGB seeks to adjust reported values and replace FMV in its aggregated data sets and periodic reporting with reported actual costs.

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

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

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

Quarterly Metric	Prior Quarter	Current Quarter
▪ **Number & General Type of NYGB Counterparties[21]**	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	63 – 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
▪ **Estimated Gross Lifetime Energy Saved by Fuel Type from Energy Efficiency Projects (MWh/MMBtu) and/or Estimated Gross Lifetime Clean Energy Generated (MWh) for Committed Funds & Deployed Funds**	Estimated Gross Lifetime Energy Saved by Fuel Type (Energy Efficiency): 369,000 - 451,000 MWh; and 1.44 – 2.05 million MMBtu	Estimated Gross Lifetime Energy Saved by Fuel Type (Energy Efficiency): 369,000 - 451,000 MWh; and 1.48 – 2.14 million MMBtu
	Estimated Gross Lifetime Clean Energy Generated: 20.2 – 26.4 million MWh	Estimated Gross Lifetime Clean Energy Generated: 21.1 – 28.3 million MWh
▪ **Estimated Gross First Year[22] 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 86,000 – 122,000 MMBtu
	Estimated Gross First-year Clean Energy Generated 1,282,000 – 1,558,000 MWh	Estimated Gross First-year Clean Energy Generated 1,321,000 – 1,633,000 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)[23] 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

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

[22] 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 ended December 31.

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

Quarterly Metric	Prior Quarter	Current Quarter
▪ **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**	592.1 – 792.9 MW	630.2 – 863.8 MW
▪ **Estimated Gross Lifetime GHG Emission Reductions (metric tons)[24] for Committed Funds & Deployed Funds**	10.9 – 14.2 million metric tons	11.37 – 15.15 million metric tons
Indirect Impact Benefits[25]		
▪ **Estimated Lifetime Energy Saved (MWh)**	-	-
▪ **Estimated Lifetime Energy Saved (MMBtu)**	4.1 – 8.4 million MWh	4.1 – 8.5 million MWh
▪ **Estimated Lifetime Clean Energy Generation (MWh)**	-	-
▪ **Estimated Installed Capacity CHP (MW)**	-	-
▪ **Estimated Installed Capacity (MW)**	61.2 – 125.2 MW	61.2 – 129.7 MW
▪ **Estimated Lifetime GHG Emissions Reductions (Metric Tons)**	2.2 – 4.4 million metric tons	2.2 – 4.5 million metric tons
Investment Pipeline		
▪ **Active Pipeline (In the Quarter) ($)**	$625.4 million	$757.4 million
Investment Process		
▪ **Proposals Received – Value (Cumulative) ($)**	$3.9 billion	$4.1 billion
▪ **Approvals - Scoring Committee (Cumulative) ($)**	$3.7 billion	$3.9 billion
▪ **Approvals - Greenlight Committee (Cumulative) ($)**	$1.6 billion	$1.7 billion
▪ **Approvals - IRC (Cumulative) ($)**	$1.0 billion	$1.0 billion

4.2 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]

[24] 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.

[25] 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.

[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

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 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 because 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 2 summarizes NYGB's performance against the Plan Deliverables for the quarter ended

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."

Table 2. Status of Plan Deliverables (2019 – 20)

Category	Deliverable	Status in Quarter Ended March 31, 2020
Strong Active Pipeline		
Active Pipeline	▪ Maintain an Active Pipeline of at least $450.0 million per quarter on average throughout the 2019 – 20 Plan Year.	☑ **Achieved for the Plan Year:** Average Active Pipeline of **$689.5 million** during the Plan Year.
Clean Energy for LMI[27]	▪ Publicly issue Credit Enhancement/Loss Reserve for CDG Tax Equity RFI[28]/RFP.	☑ **Achieved for the Plan Year:** In March 2020, NYGB issued Request for Information: Credit Enhancement Product for Tax Equity Providers in LMI-Inclusive CDG Projects.
	▪ 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.	☑ **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.
	▪ 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.	☑ **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." Since then, NYGB has participated in one-on-one meetings with stakeholders as well as in multi-agency meetings at which NYGB discussed its financing approaches for LMI projects. Further convenings and communications are to continue as approaches are developed.
Energy Storage	▪ Participate in NYSERDA webinar to inform market participants of how NYGB financings can leverage NYSERDA planned bulk and retail storage incentives.	☑ **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.
	▪ Publicly issue new standalone Energy Storage RFP following announcement of planned NYSERDA storage incentives.	☑ **Achieved for the Plan Year:** On November 12, 2019, NYGB issued Request for Proposals 13: Financing for Energy Storage Projects.
	▪ Convene energy storage market participants to present NYGB standalone Energy Storage RFP.	☑ **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	▪ Provide guidance to market participants on key items to improve the probability of securing project financing from NYGB (to be included in	☑ **Achieved for the Plan Year:** NYGB provided feedback on the NYSERDA and Con Edison pay-for-performance

[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 Ended March 31, 2020
	NYSERDA pay-for-performance RFP for small commercial applications).	RFP. NYGB helped draft the Financial Capacity section of the RFP.
	▪ Participate in NYSERDA residential stakeholder pay-for-performance convening and others with commercial market players around tenant improvement financing models.	☑ **Achieved for the Plan Year:** NYGB presented its approach to financing NYSERDA performance-based incentives at the Pay for Performance & National Grid Stakeholder Meeting in Syracuse, NY.
Large-Scale Renewables	▪ Contribute to NYSERDA Land-Based LSR[30] RFP and NYS port infrastructure RFI to communicate potential NYGB financing roles and structures to likely respondents and related parties.	☑ **Achieved for the Plan Year:** NYGB contributed to NYSERDA's Land-Based LSR RFP.
	▪ Participate in May 2019 webinar[31] for NYSERDA's LSR RFP[32] to provide information to potential respondents on NYGB financing options, so that these may be reflected in, and priced into, RFP responses.	☑ **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.
	▪ Participate in NYSERDA convening of LSR market participants to communicate NYGB financing opportunities to NYSERDA RFP respondents.	☑ **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	▪ Publicly issue Credit Enhancement/Loss Reserve for CDG Tax Equity RFI/RFP, as noted above under "Clean Energy for LMI."	☑ **Achieved for the Plan Year:** As noted above, in March 2020, NYGB issued Request for Information: Credit Enhancement Product for Tax Equity Providers in LMI-Inclusive CDG Projects.
	▪ 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."	☑ **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	▪ Convene market participants and clean transportation innovators to identify specific market needs or gaps and	☑ **Achieved for the Plan Year:** On March 6, 2020, NYGB, NECEC, & NYSERDA convened over 130 clean

[30] Large Scale Renewables.

[31] See: www.nyserda.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.nyserda.ny.gov/servlet/servlet.FileDownload?file=00Pt000000ED99VEAT.

Category	Deliverable	Status in Quarter Ended March 31, 2020
	advance NYGB financing product development and offerings.	transportation market participants for the "Clean Transportation Forum" at Con Edison.
Bio Energy	▪ Convene market participants to identify specific market needs and advance product development and potential offerings.	☑ **Achieved for the Plan Year:** On March 27, 2020, NYGB hosted the webinar *Financing Biogas Projects in NYS* with over 200 industry participants registered. The webinar focused on the latest market trends in the biogas industry and NYGB's approach to financing biogas projects.
Portfolio Driving Material Clean Energy Investments Across NYS		
Committed Funds	▪ 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).	☒ **Not Achieved for the Plan Year: $959.9 million** Overall Investments to Date. NYGB Closed **$222. 3 million** in transactions at Fiscal Year-end. NYGB averaged **$55.6 million** in closed transactions per quarter in the fiscal year.
Mobilizing Capital		
▪ **Mobilization Ratio**	▪ 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.	☑ **Ongoing & On Track:** Current NYGB investments are expected to mobilize up to **$2.6 billion** in estimated project costs. NYGB's participation in LSR, OSW, energy storage and other segments with typically larger project sizes should result in greater notional deployment in NYS, enabling NYGB to catch up in progressing toward the $8.0 billion goal.
	▪ 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.	☑ **Ongoing & On Track:** NYGB/NYSERDA continues to work with relevant parties. During the Plan Year, NYGB assessed the range of vehicles through which it might raise private capital, in particular comparing the economics, risks and constraints of raising capital for co-investment versus a debt issuance or bank facility.
Maintaining Self-Sufficiency by Strengthening Operations		
▪ **Legal & Technical Services**	▪ Issue new RFP for technical service providers to NYGB and select slate of approved providers by September 2019.	☑ **Achieved for the Plan Year:** Issued Technical RFP in June 2019. NYGB selected service providers by the end of 2019 and is executing agreements.
	▪ Issue new RFP for legal service providers to NYGB and select slate of approved providers by December 2019.	☑ **Achieved for the Plan Year:** Issued Legal RFP in September 2019. NYGB selected 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.

TRANSACTION PROFILE

December 2019

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 on[4]:

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

The estimated gross lifetime and first-year energy and environmental impacts of the 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.

TRANSACTION PROFILE
March 2020

Accelerating LMI Clean Energy Investment in New York State

Inclusive Prosperity Capital, Inc.

*In March 2020, NY Green Bank ("**NYGB**") provided a $25.0 million senior secured, multi-draw credit facility (the "**Facility**") to Inclusive Fund I, LLC ("**Borrower**"), which is owned by Inclusive Prosperity Capital, Inc. ("**Sponsor**" or "**IPC**"). Borrower will invest Facility proceeds in underlying energy efficiency, solar, and other sustainable infrastructure transactions (each an "**Eligible Project**") that will benefit low- and moderate-income ("**LMI**") communities and underserved markets. This transaction is expected to drive increased Sponsor investment in New York State ("**NYS**" or the "**State**"), drawing in other capital sources and resulting in the deployment of total clean energy project costs that amount to at least $50.0 million in aggregate.*

Transaction Description

IPC is a mission-driven specialty finance organization that seeks to increase clean energy investment in underserved markets, including a particular focus on LMI communities. NYGB entered into a $25.0 million Facility with Borrower to support IPC's programmatic origination and execution in New York State. By providing expanded financing options to underserved market segments, NY Green Bank seeks to accelerate access to affordable, clean energy and to help advance New York State's broader climate goals. LMI communities are expected to be the primary beneficiaries of this transaction in the form of broader access to clean energy and energy efficiency projects, with corresponding resiliency, affordability, improved health outcomes, and environmental benefits.

This transaction develops a scalable, replicable financing structure that capital providers can use to (i) underwrite portfolios of sustainable infrastructure projects with various underlying counterparties and (ii) develop a track record for impact-oriented institutional investment in clean energy. Given IPC's mission, this transaction enables increased capital deployment for clean energy in LMI communities, underserved markets, and a wide range of customer types (e.g. commercial, industrial, municipal, non-profits, institutional, and single and multifamily residential properties). By providing liquidity to these underserved market segments, NYGB will expand access to affordable, clean energy, advancing the environmental justice initiatives outlined in the Climate Leadership and Community Protection Act.

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 IPC transaction entered into on March 18, 2020, as required by the Metrics Plan.[2]

Form of NYGB Investment

NYGB Product	Product Sub-Type	Committed Capital
Asset & Investment	Term Loan	$25.0 million

Location(s) of Underlying Project(s)

Multiple Regions. The Eligible Projects are expected to be located in New York City as well as other Regions across 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
Borrower	Inclusive Fund I, LLC	Borrower
Counterparties (current)	Inclusive Prosperity Capital, Inc.	Sponsor

Summary of Financing Market Objectives & Barriers Addressed

Beneficiary	Market Barrier	Financing Solution
Capital Market Participants	Many capital market participants are not deeply acquainted with underwriting clean energy investments with a wide range of customer types, and are even less familiar with such projects targeting LMI customers.	This transaction develops a scalable, replicable financing structure that capital providers can use to (i) underwrite portfolios of relatively small sustainable infrastructure projects with various underlying counterparties and customer types and (ii) develop a track record for mission-driven institutional investment in clean energy and energy efficiency projects. NYGB's participation in this transaction should help demonstrate the feasibility and attractiveness of such investment opportunities and will ultimately help usher in greater amounts of private sector capital seeking to be more active in this market segment.
Underserved Market Segments	Underserved and LMI market segments face difficulties receiving cost-effective financing for their clean energy projects.	By providing liquidity to these market segments, NYGB will support increased access to affordable clean energy solutions for traditionally underserved communities, advancing the environmental justice initiatives outlined in the Climate Leadership and Community Protection Act. In addition, this transaction should help demonstrate the attractiveness of investing in such transactions which will broaden and increase the types of financiers and market participants focused on this end user group.
New Yorkers	There continues to be a shortage of precedent clean energy project investments to attract private capital. Limited precedent and track record lead to higher transaction costs, as lenders are less comfortable with less familiar counterparties and risk portfolios. This translates into higher costs for all and less optionality for LMI communities, and all New Yorkers.	By catalyzing investment in clean energy in NYS, NYGB is providing New Yorkers with greater choices and access to clean energy. This is because precedents and growing track records of certain transaction types help encourage more private sector providers to participate in future financings, and greater liquidity in the marketplace will ultimately result in reduced costs for all.

Technologies Involved

Technology	Measures
Renewable Energy	Solar photovoltaic systems
Energy Efficiency	Various: LEDs, HVAC, building envelope, CHP, etc.
Other	Anaerobic digesters, air-source heat pumps, geothermal, electric vehicle infrastructure

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 on[4]:

- Energy savings from efficiency measures (electric) (MWh);
- Energy savings from efficiency measures (fuel) (MMbtu);
- 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 Facility are as follows:

Energy/Environmental Impact	Lifetime Low Estimate	Lifetime High Estimate	Annualized Low Estimate	Annualized High Estimate
Energy savings from efficiency measures (fuel) (MMbtu)	152.22	92,320.89	2,959.00	6,154.73
Clean, renewable energy generated (MWh)[5]	415,424.68	1,030,230.82	16,616.99	41,209.23
Clean energy generation installed capacity (MW)[6]	14.11	35.00		
GHG emission reductions (metric tons)	210,164.89	520,254.39	8469.48	20940.99

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 IPC located in NYS. As with all NYGB investments, IPC investments receiving an incentive or funding from other entities (e.g., utility, other NYSERDA program) will be tracked, in accordance with the Metrics Plan, to minimize any double-counting

[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] Clean, renewable energy generated (MWh) and clean energy generation installed capacity (MW) presented in this table reflect impacts associated with solar projects only.

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.

TRANSACTION PROFILE

Revised May 2018[1]

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

Sunrun Inc.

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

Transaction Descriptions

Construction Loan Facility

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

Post-Construction Aggregation Facilities

On May 13, 2016, NYGB closed a $25.0 million commitment to participate in a transaction consisting of two credit facilities – a loan aggregation revolving facility and a term loan (together the "**NYGB Loan Products**"), which are expected to accelerate the deployment of over 5,000 solar projects at homes across NYS. The transaction was part of a broader $340.0 million financing (the "**Post-Construction Aggregation Facilities**") arranged by Investec that provides Sunrun with a larger financing to expand its business in NYS and elsewhere. The $340.0 million Post-Construction Aggregation Facilities (which include the NYGB Loan Products) represent one of the largest aggregation financings for a residential solar developer at the time of closing. On March 27, 2018, NYGB and the lender group consented to extend the deployment period and the maturity of the Post-Construction Aggregation Facilities by over two years based on Sunrun's demonstrated ability to continually deploy solar PV projects in NYS and nationally. On April 20, 2018, NYGB and the lender group consented to expand the Post-Construction Aggregation Facilities up to $595.0 million to further support Sunrun's continued growth. NYGB's share of this increase is $10.0 million, bringing NYGB's overall commitment to the Post-Construction Aggregation Facilities to $35.0 million.

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

Aggregation to Term Facilities

On May 9, 2017, NYGB closed a $15.0 million commitment to participate in an aggregation-to-term loan facility. The transaction was part of a $202.0 million financing (the "**Aggregation to Term Facilities**") arranged by SunTrust and ING that provides Sunrun with a larger financing to expand its business in NYS and elsewhere. The $202.0 million Aggregation to Term Facilities support a $100.0 million equity partnership with National Grid plc, an international utility with a sizeable NYS presence. Through increased scale, the aggregation-to-term transactions are expected post-aggregation to draw new investors and financial institutions into the marketplace, decreasing the cost of capital for solar developers and installers, and in turn, the cost of solar power equipment sold or leased to homeowners.

Overall Context

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

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

This Transaction Profile is provided pursuant to the updated "NY Green Bank – Metrics, Reporting & Evaluation Plan, Version 3.0" (the "**Metrics Plan**") developed in collaboration with the NYS Department of Public Service and filed with the NYS Public Service Commission (the "**Commission**") on June 20, 2016.[2] This Transaction Profile contains specific information in connection with the CLF (entered into on June 16, 2016), the Post-Construction Aggregation Facilities (entered into on May 13, 2016), and the Aggregation to Term Facilities (entered into on May 9, 2017) as required by the Metrics Plan.[3]

Form of NYGB Investment

NYGB Product	Product Sub-Type	Committed Capital
Warehousing/Aggregation	Senior Secured Revolver and Subordinated Term Loan	$35.0 million
Warehousing/Aggregation	Senior Secured Aggregation-to-Term Loan	$15.0 million
Asset Loan & Investment	Construction Financing Revolver	$25.0 million

Location(s) of Underlying Project(s)

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

[2] Cases 13-M-0412 and 14-M-0094.
[3] See Section 4.0, page 8 and Schedule 3.
[4] Defined as projects located in four or more regions of the State.

Types of Client & Counterparty Organizations that are Transaction Participants

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

Summary of Financing Market Objectives & Barriers Addressed

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

Technologies Involved

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

Metrics & Evaluation Plan

Planned Energy & Environmental Metrics

NYGB's minimum investment criteria specifically require that "transactions will have the potential for energy savings and/or clean energy generation that will contribute to greenhouse gas [('**GHG**')] reductions in support of New York's energy policies".[5] In addition, the Metrics Plan requires that the following energy and environmental measures, applicable to this transaction, be reported on[6]:

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

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

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

The estimated gross lifetime and first-year energy and environmental impacts of Sunrun's development in NYS, facilitated by NYGB's participation in the Investec Credit Facilities, the CLF and the Aggregation to Term Facilities, are as follows:

Energy/Environmental Impact	Lifetime Low Estimate	Lifetime High Estimate	First-Year Low Estimate	First-Year High Estimate
Estimated gross clean energy generated (MWh)	2,148,000	2,390,000	85,900	95,600
Estimated gross clean energy generation installed capacity (MW)[8]	73.0	81.0	Not Applicable	
Estimated gross GHG emission reductions (metric tons)[9]	1,130,000	1,256,000	45,200	50,200

Planned Market Characterization Baseline & Market Transformation Potential

The Metrics Plan requires that market evaluation will occur when a critical mass of NYGB financing and investment arrangements are put in place. This market evaluation will be conducted on sectors in which NYGB has participated and will occur approximately three to five years following initial NYGB capital deployments. Baseline data will be collected in 2018 for most indicators as a comparison point against which to assess market progress in the later studies. Progress indicators are defined below for the short, mid and long terms.[10]

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

- Number and location of projects (by zip code);
- Size (generation capacity and dollar value) of projects;
- Increasing market volume of projects; and
- Favorable financial and technology performance data.

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

- Increased awareness of clean energy benefits amongst financing entities as a result of favorable technology performance data;
- Investment risk/default rates become increasingly attractive to investors, as a result of positive financial performance data;
- Increased number of financial participants providing similar capital structures;
- Replication of finance model by other developers;
- Decreased project technology costs;
- Increased number of clean energy financings;
- Emergence of secondary markets for clean energy asset classes; and
- Reduced time to execute clean energy financings.

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

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

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

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

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

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

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

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

TRANSACTION PROFILE

April 2019

Supporting Residential Solar in New York State

Spruce – Residential Solar

*NY Green Bank ("**NYGB**") has committed $27.1 million to the recapitalization of a portfolio of residential PV assets by Spruce Finance Inc. ("**Spruce**"), including 9.0 MW of capacity in New York State ("**NYS**" or the "**State**"). NYGB's participation in this transaction – alongside other commercial banks – supports the medium-term financing of post-tax equity residential photovoltaic ("**PV**") assets and the secondary market for residential PV assets more broadly. The existence of a robust secondary market supports even greater development of residential solar assets through price discovery and greater availability of capital interested in investing in this asset class. In addition, NYGB's involvement in this transaction contributes to ratepayers' greater energy choices, and ultimately, lower-cost clean energy opportunities.*

Transaction Description

Spruce owns a portfolio of approximately 23,500 residential PV systems that it operates and manages, located in 11 states including New York and California. NYGB has committed $27.1 million alongside capital from five commercial banks to support the medium-term financing of these residential PV assets.

Since being acquired in 2017 by HPS Investment Partners, Spruce has crystalized its focus on its key business lines, sold non-core assets and cut administrative costs. Through the leadership of a new executive team, these initiatives resulted in Spruce achieving positive operating cash flow commencing in the fourth quarter of 2018. Market recognition of this transformation should continue to put downward pressure on credit financing costs. This transaction demonstrates to the market that a high quality portfolio of residential solar assets can successfully go through a turnaround under a well executed reorganization and recapitalization plan.

NYGB will provide support to an active actor in the residential solar value chain, Spruce. Both NYGB and Spruce believe that developers and investors will continue to view the New York residential solar market as robust and competitive. Developers and investors can enter the residential solar market knowing that potential buyers of their assets exist. Should they decide that they would like to exit their position and monetize their assets, Spruce (among similar parties) can support this as an active buy-side market player. A competitive landscape of both buyers and sellers will drive the continued growth of residential solar in the State.

This transaction compliments a previous commitment by NYGB to Spruce in March 2017, that was refinanced by this new recapitalization transaction. In the prior transaction, NYGB committed $6.0 million to a five-year $99.4 million senior secured term loan (which Spruce used to refinance an existing aggregation facility supporting 86.0 MW of generating capacity across 12,711 homes in 11 states). Over 6.2% of the initial portfolio was located in New York State and NYGB's activity helped establish a new medium-term lending market for financing existing residential solar systems in NYS while providing liquidity for Spruce to develop additional projects.

Many benefits of Clean Energy Fund initiatives in the State (including NYGB investments like the Rock Wind and Valcour transactions) comprise follow-on market activity as part of quantifying overall impact. In this instance, the provision of secondary financing of operating PV assets is expected to provide confidence to developers and future financiers that there is increasing liquidity in the residential solar asset class, throughout the project lifecycle, spurring even greater interest and activity from developers and financiers. NYGB expects to see material indirect benefits from transactions like this one in the form of more residential PV development for NYS. Specific estimated indirect impact benefits associated with this transaction are set out in the "Metrics & Evaluation Plan" section of this Transaction Profile, below.

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 Spruce transaction entered into on April 30, 2019, as required by the Metrics Plan.[2]

Form of NYGB Investment

NYGB Product	Product Sub-Type	Committed Capital
Asset Loan & Investment	Term Loan	$27.1 million

Location(s) of Underlying Project(s)

Statewide.[3] Spruce will refinance projects throughout New York

Types of Client & Counterparty Organizations that are Transaction Participants

	Name	Participant Type
Client	Kilowatt Systems, LLC Volta Solar Owner 1, LLC Volta MH Owner II, LLC	Project Holding Companies
Sponsor(s)	Spruce Holding Company 1, LLC Spruce Holding Company 2, LLC Spruce Holding Company 3, LLC (together, **"Spruce"**)	Solar Operating Company
Counterparties (current)	Silicon Valley Bank, ING, KeyBank, EastWest Bank, BankUnited	Commercial Banks

Summary of Financing Market Objectives & Barriers Addressed

Beneficiary	Market Barrier	Financing Solution
Project Developers / PV Asset Managers	Solar developers may face difficulties refinancing assets efficiently after the tax equity period ends.	NYGB's participation supports a liquid secondary market for operating projects where the perceived market need is greatest. This may catalyze growth and developer activity throughout the project life cycle.
Capital Market Participants	Capital market participants may be interested in owning or financing residential solar assets, but may have a mismatch between the life of the solar assets and the duration of their desired exposure.	NYGB's participation provides an important market signal that a liquid secondary market in such assets exists and should continue to exist. Knowledge of market liquidity and ability to periodically validate asset value via the market should provide enticement to interested investors.
New Yorkers	While interest and activity in residential solar projects has been robust and continues to increase in NYS, certain inefficiencies may exist in financing the full PV asset life cycle.	By bridging financing gaps in the secondary marketplace, NYGB is encouraging more primary residential solar development in the State. Ultimately this is expected to provide New Yorkers with greater choices and access to clean energy at a lower cost.

[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

Technologies Involved

Technology	Measures
Renewable Energy	Residential PV Systems

Metrics & Evaluation Plan

Planned Energy & Environmental Metrics

NYGB's minimum investment criteria specifically require that "transactions will have the potential for energy savings and/or clean energy generation that will contribute to greenhouse gas [("**GHG**")] reductions in support of New York's energy policies".[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).

Since this transaction involves the secondary market financing of existing PV assets, there are no claimed direct incremental impact benefits. However, material indirect impact benefits are expected to result for the State from NYGB investments of this nature.[6] The estimated additional gross lifetime and first-year energy and environmental impacts of the Spruce projects are as follows:

Energy/Environmental Indirect Impact	Annual Estimate	Lifetime Estimate
Estimated clean energy generation installed capacity (MW)	9.1 – 21.0	
Estimated clean energy generated (MWh)	10,674 – 24,724	266,845 – 618,106
Estimated GHG emission reductions (metric tons)	5,616 – 13,009	140,406 – 325,230

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 to collect baseline data on key market indicators for the sectors that have been supported by NYGB since its inception, and the dataset 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 at least for the duration of the transaction. These include, but are not limited to:

- Number of new PV projects acquired by Spruce or similar market participants;
- Average and aggregate dollar value of projects;
- Location of projects;
- Size of projects (i.e., installed capacity in MW);
- Estimated renewable energy generation (in MWh); and
- Estiamted GHG emission reductions (in metric tons).

[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.
[6] As the attribution of indirect benefits is an evolving area for the Clean Energy Fund and NYGB, details with respect the methodologies and key assumptions involved will be included in NYGB's future Quarterly Metrics & Evaluation Report, with the next such report due to be filed on [May 15, 2019].

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

- Favorable financial performance data;
- Favorable technology performance data;
- Increasing market volume of residential PV (both development and primary/secondary financings);
- Investment risk/default rates become increasingly attractive to investors as a result of positive financial performance data;
- Amount and scale of PV investment increases, together with increased end-use market demand;
- Decreasing project technology costs/increasing output and efficiency; and
- Decreasing financing costs based on higher liquidity and price discovery.

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 to track information including but not limited to: project scale information, interest in solar financing and influence of NYGB's participation on primary and secondary financial markets. As noted, baseline data is being 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 further development of projects to verify that PV system installations are occurring over time as part of expected market follow-on activity and that those new systems are collectively generating clean energy and impact benefits within the estimated ranges set out in this Transaction Profile.

As with all NYGB investments, projects that receive an incentive or funding from other entities (e.g., utility, other NYSERDA program) will, in accordance with the Metrics Plan, be tracked in order to minimize any double-counting activity on a consolidated basis. As set out in the Metrics Plan, evaluation sampling approaches will also be used as a mechanism to estimate overlap and 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.